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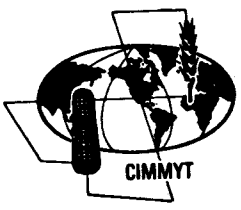
RESULTS OF THE SEVENTH INTERNATIONAL SPRING WHEAT YIELD NURSERY 1970 - 1971



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RESULTS OF THE

SEVENTH INTERNATIONAL SPRING WHEAT YIELD NURSERY

1970 - 1971

Abstract

The Seventh International Spring Wheat Yield Nursery (ISWYN) was composed of 50 spring wheat varieties from 18 different countries. Eighty-nine sets of this experiment were distributed to cooperators in 42 countries. Sixty-seven sets of results are reported in this research bulletin.

Individual tables of results are provided for each test site, together with a simple analysis of variance and a correlation analysis of the characteristics recorded. A summary table is provided listing the average value, overall test sites, of each character recorded.

The selection LR 64 x N10B - An_E^3, a semidwarf line submitted from Sudan was highest yielding overall test sites. This variety was recently named Mexicani in the Sudan. Three new entries, Bluebird # 4 (now released as Cajeme 70), Syrimex and Potam 70, occupied second, third and fourth place, respectively, in average yielding ability over all test environments.

* * *

Introduction

The cooperation received from many scientists in all the wheat growing areas of the world has led to a steady expansion in the size, number and type of international nurseries. Currently there are 11 nurseries distributed by the International Wheat Program of CIMMYT to 42 different countries. See Figure 1.

These nurseries are providing valuable data on adaptation, disease and insect resistance, and other characteristics for the further improvement of wheat. Many varieties have been introduced directly into production in various countries as a result of their nursery performance.

Materials and Methods

Seed for the Seventh ISWYN was produced in increase plots at the Centro de Investigaciones Agricolas del Noroeste (CIANO) at Ciudad Obregon Sonora, Mexico, during the 1968-69 growing season. The seed was treated with Vitavax (registered trademark for 5, 6-dihydro-2, methyl-1, 4-oxathiin -3-carboxanilide) disinfectant prior to packeting. The experimental plots usually consisted of six 2.5-meter rows with three replications. Instructions concerning seeding, nursery management and note taking, as well as data sheets, were included with each set of seed.

The 50 varieties (Triticum aestivum L.) in the nursery represented the principal varietal types of spring wheat grown in many areas of the world. Some of the varieties had been included in previous international nurseries and others were chosen from those submitted by collaborators because they exhibited some outstanding trait in specific regions. An attempt was made

to balance previous entries and new entries to keep the nursery current and meaningful.

The varieties entered for testing in the Seventh ISWYN were[1/]:

ARGENTINA:

* Piamontes: A normal-height, excellent-baking-quality variety with moderate resistance to stem and stripe rusts and moderate susceptibility to leaf rust.

Sonora 64A x Tezanos Pintos Precoz - Nainari 60 (C): 18889-101 M-1R-3C-1T-2B-0Y. Promising high-yielding line.

* Gaboto: Bagé 2018 x H44 - Sinvalocho Mag/Bagé 1971/37. One of the most important soft-grained varieties in the northern part of the Argentine wheat belt. It is considered resistant to Septoria spp., Fusarium spp and rusts.

* Pato Argentina: Tezanos Pintos Precoz - Sonora 64A x Nariño 59. II 21974-4R-4M-2R-0Y-0P-0Y. A semidwarf, stiff-strawed variety with resistance to all three rusts and Septoria spp.

* Sonora 64 x Tezanos Pintos Precoz - Nainari 60 (B): 18889-6T-4T-2T-1T-2B. Sister line of Jaral 66 and the Third ISWYN entry Jaral "S". This line shows promise of a high yield potential, good resistance to stem and stripe rust, strong gluten and early maturity. One defect is low grain test weight.

1/ Pedigree notations are: "S" = sib; E = dwarf; and superscript numbers = number of backcrosses.

* An asterisk preceeding a variety or cross indicates entry in a previous ISWYN.

* Sonora 64 - Klein Rendidor: II 19975-68Y-1J-1Y-1J-5Y-1T. A line of promising yield potential and broad adaptation. It is intermediate in maturity, semidwarf and has good disease resistance. It has some cold tolerance and has shown tolerance to Septoria in some parts of the world, especially North Africa and the Middle East. Sister line of Marcos Juarez, INTA, Soltane and Zaafrane.

* Buck Manantial: Rafael Mag - Buck Quequén. A normal-height, tenacious-grained wheat with moderate resistance to stripe rust and moderate susceptibility to stem and leaf rusts. Lodging may be a problem under high nitrogen fertilizer.

AUSTRALIA

Mexico 120: Yaktana 54-Norin 10 Brevor II 7064. Three-gene dwarf that has shown wide adaptability. Reported to perform well under dry conditions in Australia. Susceptible to leaf and stem rust; it is probably a Pitic "S", showing Septoria resistance in Mexico.

* Timgalen: (Aguilera x Kenya x Marroqui x Supremo) x Gabo x Winglen-W-3128. A medium-early maturity with erect early growth and slender straw of medium height. The head is white, tapering, curved, bearded and has white grain of excellent milling and baking quality. This variety carries five factors for stem rust resistance and three for leaf rust as well as flag smut resistance.

BRAZIL

* Carazinho: Colonista-F[illegible]ontana. A soft, red-seeded commercial variety reported to be able to pro[illegible]e relatively good yield on acid soils. It has good stripe rust resistance under most conditions.

Iassul: IAS-20 Colonias (Frontana x Kenya 58). Released in Brazil during 1963. A tall variety, very resistant to Septoria tritici in Mexico and North Africa.

CANADA

* Selkirk: McMurachy-Exchange x Redman[3]. Until recently, the most extensively grown variety in the moist parts of the northern hard red spring wheat areas of U.S.A. and Canada. It is stem rust resistant.

CHILE

* Huelquen: The most widely grown commercial variety in Chile. It has shown good resistance to all three rusts and high yield potential. It is normal in height.

COLOMBIA

* Bonza 55: Yaqui 50-Kentana 48 II-2254-2P-111B-4B-1B. An important commercial variety in Colombia and Ecuador which has maintained an effective level of resistance to both stripe and stem rust for 15 years. This is unique with the explosive stripe rust race situation in Colombia.

* Crespo 63: Frocor (Newthatch/Mentana[2]- Kenya x Bagé) x Gabo. II-11263-3T-1B-2T-1B-1T. A commercial variety released jointly by Ecuador and Colombia, having a good level of field resistance to stripe rust.

* Napo 63: Frocor-Frontana/Yaqui 48 x Nariño "S" II-9314-22T-1B-1T. An important variety in both Colombia and Ecuador showing very good resistance to stem and stripe rusts.

*Palmira 1: Thatcher-Santa Catalina x Frocor. 5962-4T-2B-1T-2B. This variety was included to test suspected adaptation to warm, low-land tropical climates.

EGYPT

* Giza 155: Regent-Giza 139^2/Mida x Cadet - CI 12441 x H 62^2. A white-grained variety of high test weight.

INDIA

* C - 306: (Regent 1974 x Czechoslovakia^3) C 591^2 x (P 19 x C 281). This medium-tall variety of fair straw strength was bred for the central districts of Punjab. It is full bearded with pubescent chaff. It is considered tolerant to the rusts, but it is susceptible to loose smut.

Chhoti Lerma: Lerma Rojo 64 "S"- Huamantla Rojo II 15929-1M-4Y-2M-S-331. Released in India during 1967, also released in Pakistan as Green Valley during 1970. Susceptible to Septoria in Mexico.

* Sonalika: II-53-388-Andes x Pitic "S" - Lerma Rojo 64/B 4946-A4-18-2.1-Yaqui 53 x Yaqui 50^3. II 18427-4R-1M. This semidwarf variety has high yield potential and excellent grain type but is susceptible to the rusts and Septoria under some conditions. In previous literature it has been known as S-308 and cross (II 53-388 x An) Yt54 x N10B-LR 64 or II 53-388-An x Pi "S"- LR 64.

Safed Lerma: Yaqui 50 x Norin 10 Brevor-Lerma 52/Lerma Rojo S-307. Released by India during 1967. This variety is a one-gene dwarf, very similar to Lerma Rojo 64, with stronger straw and white grain.

UP 301: Sonora 64 - Lerma Rojo 64. Triple dwarf yields well in good environments. Released for use in the southern part of India. Also shows promise in Egypt and North Africa. It is resistant to all three rusts but is susceptible to Septoria.

ISRAEL

Hazera 2152: Yaktana 54 A^3 -Norin 10 Brevor II 8474A-8T-12B. Released in Israel as a commercial variety in 1969, grown extensively by 1970. Yields compare to Inia 66.

ITALY

* Victor I: II 50-35 x $Mara^3$ x Frontana-Kenya 58-Newthatch. A promising breeding line of late maturity, intermediate growth habit and good yield potential. It is susceptible to leaf and stem rust, but has moderate resistance to stripe rust. In North Africa, Near and Middle East, it has shown resistance to Septoria spp. Defects are low test weight and weak gluten.

MEXICO

* Nainari 60: (Supremo-Mentana x Gabo) Thatcher-Queretaro x Kenya-Mentana) Gabo P 4160-6H-3Y-2C. A tall, strong-straw variety now largely replaced by semidwarfs in Mexico. This once important commercial variety

is still widely used in crossing programs. It has shown good adaptation in several Near Eastern countries and in the Inter-American International Yield Nurseries.

* Pitic 62: Yaktana 54 x Norin 10 Brevor 26-1C 7064-1Y-1H-1R-2M. First semidwarf variety released in Mexico. This high-yielding variety has done well in the Inter-American Nurseries, all three Near East-American Nurseries and the ISWYN's. It has low test weight and susceptibility to current races of stem rust. It is being grown commercially in some countries.

* Tezanos Pintos Precoz - Sonora 64 (Lerma Rojo 64A-Tezanos Pintos Precoz x Andes E^3: II 22429-16M-1Y-1M-0Y. A new semidwarf line with strong gluten, promising in local testing, apparently a sister line released in Argentina as Calidad. Other sister breeding line known as Utique in Tunisia.

* Penjamo 62: (Frontana x Kenya 58-Newthatch) Norin 10 Brevor. II 7078 1R-6M-1R-1M. One of the first Mexican semidwarfs, this variety is still grown in a number of countries. It has broad adaptation.

* Siete Cerros 66: Penjamo "S" - Gabo 55. II 8156-1M-2R-4M. A white-grained dwarf variety of very high yield potential and broad adaptation. This variety and its red-seeded sister, Super X, and reselections are referred to under various names, including 8156, Kalyansona, S-227, PV-18, Indus 66, Mexipak 65, Laketch, etc. These are now grown widely in Pakistan, India and other Near Eastern countries.

Saric 70 = (Bluebird # 3): Ciano "S" x Sonora 64-Klein Rendidor/Siete Cerros "S" II 23584-26Y-2M-2Y-0M. Semilate variety with strong, short straw (triple dwarf), red grain with a test weight of 80.4 kg/hl and strong elastic gluten. Moderately resistant to Septoria. Resistant to stem rust in Mexico, but moderately susceptible to leaf rust. Released in Mexico during 1970.

* Inia 66: Lerma Rojo 64-Sonora 64. 19008-83M-100Y-100M-100Y-100C. This joint release from CIMMYT and INIA (Instituto Nacional de Investigaciones

Agricolas) programs is the earliest semidwarf now available and has shown excellent baking qualities, good yield potential, lodging resistance and resistance to many races of stem and stripe rusts. It is susceptible to leaf rust, to bunt and barley yellow dwarf. White chaff and red seed characterizes this variety.

Potam 70: Inia "S" x Napo 63 II 22402-6M-4Y-1M-1Y-0M. Early variety with strong, short straw (double dwarf), white grain, with soft extensible gluten. Yields about the same as Inia under Mexican conditions. Moderately susceptible to Septoria. Resistant to stem rust, moderately susceptible to leaf rust. Released in Mexico as a commercial variety during 1970.

Cajeme 71 = (Bluebird # 4): Ciano "S" x Sonora 64-Klein Rendidor/Siete Cerros "S". II 23584-26Y-2M-3Y-2M-0Y. Released in Mexico during 1971 as a commercial variety. A sister line to Yecora 70, it is a triple dwarf variety, with red kernel and strong gluten. It is resistant to stem rust and leaf rust.

Tobari 66 x Super X 22964-3Y-5M-0Y-501Y-0M. Promising high yielding advanced line. Moderately resistant to Septoria, in Mexico, North Africa and Turkey.

* Lerma Rojo 64A: (Yaqui 50 x Norin 10-Brevor) (Lerma 52-Lerma Rojo^2). 8724-8Y-1C-1Y. A semidwarf version of the original Lerma Rojo derived through backcrossing that has shown good adaptation in the Near East and Mexico. It is resistant to many races of stem and stripe rusts, but susceptible to bunt and powdery mildew.

Yecora 70 = (Bluebird # 2): Ciano "S" x Sonora 64-Klein Rendidor/Siete Cerros "S". Triple-dwarf variety released by Mexico during 1970. The variety is a sister line to Saric 70. It has strong straw, white grain with strong elastic gluten. Yields 15% higher than Inia 66 under Mexican conditions. Resistant to stem rust, moderately susceptible to leaf rust, and Septoria.

Nuri 70: = (Bluebird # 1) Ciano "S" x Sonora 64-Klein Rendidor/Siete Cerros "S". II 23584-15Y-6M-0Y Single-gene dwarf with short strong straw kernel white with strong elastic gluten. Yields about 10% higher than Inia 66 in Mexican yield trials. Moderately resistant to stem rust and leaf rust.

* Tobari 66: Tezanos Pintos Precoz-Sonora 64A. 19021-4M-3Y-102M -100Y-101C. A red-seeded dwarf variety with good quality and outstanding disease resistance including Septoria. The yield potential may not be as high as Siete Cerros. It is widely grown in several countries.

PAKISTAN

* Chenab 70: C-271 x Willet ($_E$)-Sonora 64. Pk 146-12A-4A-1A. A semidwarf, soft-grain type with moderate resistance to stripe rust. Stem and leaf rusts may be severe under some conditions.

RHODESIA

* Lundi: Mara x Lee-Selkirk. S595 A1 A6 B2. Semidwarf variety with moderate susceptibility to leaf and stripe rusts.

* Zambezi: 8156 x Lee-Thatcher x Kenya 338 AC/Lee-Mida-Siete Cerros type variety with good yield potential.

SUDAN

* Lerma Rojo 64 x Norin 10 Brevor x $Andes_E^3$: Outstanding cross in several countries, WW-15 in Australia (1969), ANZA in the U. S. A. (1971), Mexicani in Sudan (1971), Karamau in New Zealand (1972).

* 36896 - Cajeme 54^2 x Yaktana 54 A(H): This semidwarf selection has a large head and has some resistance to the three rusts.

SOUTH AFRICA

* Turpin 7: Mayo 54-Norin 10 Brevor x Nainari "S" II 8715-7Y-IC A triple dwarf with extreme susceptibility to the prevalent races of Puccinia graminis tritici in Mexico and to Septoria in North Africa. It is also moderately susceptible to leaf and stripe rusts.

SYRIA

Syrimex: Yaktana 54-Norin 10 Brevor x Lerma $Rojo^3$. Released in Syria during 1969. Another Lerma Rojo type that performs well under dry conditions. It is grown extensively in Syria.

TUNISIA

BT 2288: Tacuari-Penjamo 62. A good-yielding line, double dwarf, with long spikes with red grain. Resistant to stem and stripe rust. Moderately susceptible to leaf rust and susceptible to Septoria.

BT 2281: Tezanos Pintos Precoz - Sonora 64 x Lerma Rojo 64 - Sonora 64/Sonora 64A x Selkirk^{3} - Andes. Good stem and stripe rust resistance, moderately susceptible to leaf rust and very susceptible to Septoria. It is a two-gene dwarf that yields about the same as Inia in North Africa. Grain is red.

UNITED STATES OF AMERICA

* Chris: CI 13751 Frontana - Thatcher x II-44-29-Thatcher^{2}. II 53-525-1. A variety developed in Minnesota with excellent quality, good disease resistance and acceptable yield potential. It is widely grown in the U.S.A. and Canada. This variety, listed previously as Minn II 53-525, is tall and partially light sensitive. It has fair resistance to Septoria.

Data Processing and Analysis of Variance

The coefficients of disease infection have been analyzed statistically as well as correlated with other traits (e.g., yield). However, for tabular presentation in this report, the standard rust scale notes from the first replication at each location are presented since it is easier to visualize from this the response of a particular variety. The mean rust reaction by location is presented as an index of the amount of rust at that location. Relatively low mean rust values indicate low incidence and/or virulence of the pathogen. Higher means are indicative of a higher incidence and/or virulence. These means provide a relative location comparison and a reflection of the degree of infection of that pathogen in that nursery under the environmental conditions that existed.

Other indices of varietal performance were analyzed whenever possible and are presented in the tables. Most of these values were percentages. Several indices were transformed to percent.

The ISWYN trials, comprising three replications, are prepared in a completely randomized block design.

The variables for each variety are collected and the mean value is calculated. The yields are ranked in descending order.

The mean values for yield and other variables are obtained for each variety. Then, the mean of the means is calculated for every variable. This is called the grand mean, and is written under each variable column.

The remaining sequences for standard error of the grand mean, coefficient of variation (CV), and LSD .05 are all called analysis of variance, which has been calculated only when there are two or more replications of data.

The analysis of variance for yield illustrate the point, and this procedure is applicable for any variable of ISWYN, when it is replicated two or three times.

In the previous nursery reports, when the coefficient of variation (CV) was greater than 75%, the data for that specific variable were deleted and the column was not printed. This event occurred with variables other than yield. Wheat scientists have requested that variables with (CV) greater than 75% be printed. Consequently, we may see in some tables a few variables with high (CV). A high (CV) results from high standard error and low mean values. This occurs when data is omitted, numerous zero values are recorded, difference in estimating values for variables between replicates, or it is due to natural variation in environment. Therefore, estimated error of variances were computed directly for all traits reported. The (CV) is expressed in percentage (ratio of standard error to grand mean times 100 by square root or $\sqrt{nr}$, where n=number of varieties and r=number of replications). The (CV) is used for observing the variation between two variables among locations.

The least significant difference (LSD) is calculated at the 5% level. The advantage of (LSD) is that it is easy to use for making comparison between two means for two locations.

Considerable insight into factors influencing yield can sometimes be gained by correlation studies. Correlations were performed on all possible pairs of factors by location using the mean value for each trait reported. Correlations were computed on the replication means rather than the raw values because some types of data were frequently reported for only one replication. The populations size is fairly small for this type of analysis and some spurious correlations may be encountered. Discretion is advised in interpretation of these values. Many workers find correlation analyses interesting and useful and they are presented as part of the summary table for each location with an awareness of their limitations.

The overall location means were computed for each variable and are presented herein when the number of observations justified inclusion. With the exception of the rust data, the reported units are those used through-

out this report. For arithmetic purposes the mean rust reactions were computed on the coefficient of infection values (CI). A comparison of relative CIs is suggested for selecting potentially useful rust resistant varieties. Average values of less than 10 can be considered as quite resistant while varieties with values greater than 20 might be considered susceptible.

Many problems have been encountered in the analyses and summary of these unique data. It has been our attempt to provide the reader with the maximum amount of usable information and yet not confuse the picture with a great deal of computation detail.

Results and Discussion

Data from 67 locations representing 42 countries were returned to CIMMYT for analysis for the Seventh ISWYN. Figure 2 represents a map of the reporting locations with their corresponding table numbers. Figure 3 illustrates the growing season at each site and its elevation above sea level. The trials were grown during different growing seasons in different parts of the world during 1970-1971.

The data are presented in a summarized form, one table for each trial site. The grand mean of each trait is calculated and presented with other pertinent statistics in each table.

The Seventh ISWYN represents the tenth year of testing through 14 different trials: Three Inter-American Nurseries from 1961 to 1963; Four Near East American Nurseries from 1962 to 1964 and Seven International Spring Wheat Yield Nurseries from 1965 to 1971.

The highest mean yield over all sites for a single variety is

4105.65 kg/ha, attained in this ISWYN by the entry LR 64 x N10B - An_E^3. A similar entry from Australia was ranked 8th in the previous (6th) ISWYN. They represent a group of varieties that have performed well, and are now widely distributed under the names of WW-15 in Australia, Anza in the USA, Mexicani in Sudan and Karamau in New Zealand. There were 15 new entries in this ISWYN, from seven different countries, five of these new entries are ranked among the 10 top-yielding varieties. For example, Bluebird # 4 (Cajeme 71), Syrimex and Potam 70, all of them new entries, ranked second, third and fourth, respectively,

The mean yield for these varieties at all locations is around 4,000 kg/ha. From this data it is evident that one of the main purposes of ISWYN, namely, the identification of high-yielding varieties of broad adaptability and disease resistance, has been achieved to a high degree. Wide adaptation continues to be one of the strong points in the CIMMYT International Breeding Program, and is the result of selecting the breeding materials in a number of different and contrasting environments.

The excellent cooperation received from wheat scientists in all the countries reported in this publication has been the major reason for the program's success.

RESULTADOS DEL SEPTIMO ENSAYO INTERNACIONAL DE RENDIMIENTO DE TRIGOS DE PRIMAVERA

1970 - 1971

Abstracto

El Séptimo Ensayo Internacional de Rendimiento de Trigos de Primavera (ISWYN) estuvo formado por 50 variedades de trigo de primavera, provenientes de 18 países. Ochenta y nueve series de este experimento fueron distribuídas a científicos colaboradores de 42 países. En este folleto se informa de los resultados reportados de 67 series.

El presente trabajo muestra cuadros de resultados para cada sitio de prueba, junto con un análisis de varianza sencillo y un análisis de correlación de las características registradas. También se presenta un cuadro de resumen que enlista el valor promedio, en todos los sitios de prueba, de cada característica registrada.

La selección LR64 x N10B- An_E^3, una línea semienana sometida por Sudán fue la de mayor rendimiento en todos los sitios de prueba. Esta variedad fue recientemente bautizada con el nombre de Mexicani en Sudán. Tres nuevas entradas, Bluebird # 4 (distribuída con el nombre de Cajeme 70), Syrimex y Potam 70, ocuparon el segundo, tercero y cuarto lugar, respectivamente, en su promedio de rendimiento bajo todos los lugares de prueba.

Introducción

La cooperación recibida de parte de numerosos científicos que laboran en todas las zonas trigueras del mundo ha proporcionado una expansión consistente del tamaño, número y tipo de los ensayos internacionales. Actualmente hay 11 ensayos distribuídos por el Programa Internacional de Trigo del CIMMYT a 42 países. Ver Figura 1.

Estos ensayos suministran datos valiosos sobre adaptación, resistencia a insectos y enfermedades y otras características. Dicha información es útil para mejorar más al trigo. Muchas variedades se han introducido directamente a los programas de producción de varios países merced a su comportamiento en los ensayos.

Materiales y Métodos

La semilla para el Séptimo ISWYN fue producida en parcelas de multiplicación en el Centro de Investigaciones Agrícolas del Noroeste (CIANO), en Ciudad Obregón, Sonora, México, durante el ciclo 1968-69. La semilla se trató con el desinfectante Vitavex (marca registrada para el 5, 6-dihidro-2, metil-1, 4-oxatín-3- carboxanilida) antes de empacarse. Las parcelas experimentales consistieron ordinariamente de seis hileras de 2.5 m de largo con tres repeticiones. En cada serie de paquete de semilla se incluyeron hojas con instrucciones sobre siembra, manejo del ensayo y toma de notas, así como hojas para registrar los datos.

Las 50 variedades (Triticum aestivum L.) del ensayo representaron los principales tipos varietales de trigo de primavera que se siembran en muchas regiones del mundo. Algunas de las variedades se habían incluído antes en ensayos internacionales previos y otras se escogieron de entre los materiales enviados por los colaboradores, en virtud de que exhibieron alguna característica destacada en regiones específicas. Se trató de balancear el número de entradas previas y de nuevas entradas, a efecto de mantener el ensayo al día.

Las variedades que entraron a prueba en el Séptimo ISWYN fueron 1/:

ARGENTINA:

* Piamontés: Variedad de altura normal, de excelente calidad panadera, con resistencia moderada a las royas del tallo y líneal, y susceptibilidad moderada a la roya de la hoja.

Sonora 64A x Tezanos Pintos Precoz - Náinari 60 (C): 18889-101 M-IR-3C-1T-2B-0Y. Línea promisoria de alto rendimiento.

*Gaboto: Bagé 2018 x H44 - Sinvalocho Mag/Bagé 1971/37. Es una de las variedades de grano suave más importante en la faja triguera del norte de Argentina. Se le considera resistenta a Septoria spp., Fusarium spp. y a las royas.

* Pato Argentina: Tezanos Pintos Precoz - Sonora 64A x Nariño 59. II 21974-4R-4M-2R-0Y-0P-0Y. Variedad semienana, de paja fuerte, resistente a las tres royas y a Septoria spp.

* Sonora 64 x Tezanos Pintos Precoz - Náinari 60 (B): 18889-6T-4T-2T-1T-2B. Línea hermana de Jaral 66 y de la entrada del Tercer ISWYN Jaral "S". Esta línea es promisoria en cuanto a su potencial de alto rendimiento, buena resistencia a las royas del tallo y lineal, gluten fuerte y madurez temprana. Un defecto es el bajo peso específico de su grano.

* Sonora 64 - Klein Rendidor: II 19975 - 68Y-1J-1Y-1J-5Y-1T. Línea promisoria de alto potencial de rendimiento y amplia adaptación. Es intermedia en cuanto a madurez, es semienana y posee buena resistencia a las enfermedades. Tiene algo de tolerancia al frío y ha mostrado tolerancia a Septoria en algunas regiones del mundo, especialmente en Noráfrica y en el Medio Oriente. Es línea hermana de Marcos Juárez, INTA, Soltane y Zaafrane.

*Buck Manantial: Rafael Mag-Buck Quequén. Variedad de altura normal, con grano tenaz, resistente a la roya lineal y moderadamente susceptible a las royas del tallo y de la hoja. El acamado pudiera ser un problema bajo altos niveles de fertilización nitrogenada.

1/ Las notaciones de la genealogía son: "S" = hermana (sib); E = enana; los números sobreinscritos = número de retrocruzas.

* El asterisco que precede a la variedad indica que ésta figuró en el ISWYN anterior.

AUSTRALIA

México 120: Yaktana 54 - Norin 10 Brevor II 7064. Triple enana que ha mostrado amplia adaptación. Se informa que se comporta bien bajo condiciones secas en Australia. Susceptible a las royas de la hoja y del tallo; probablemente es un Pitic "S", que muestra resistencia a Septoria en México.

*Timgalen: (Aguilera x Kenya x Marroquí x Supremo) x Gabo x Wingler -W-3128. Un trigo con madurez de media a precoz, crecimiento temprano erecto y paja delgada de altura mediana. Su espiga es blanca, terminada en punta, curvada y barbada; su grano es blanco y posee excelente calidad de molienda y panificación. Esta variedad tiene cinco factores de resistencia a la roya del tallo y tres factores de resistencia a la roya de la hoja. También es resistente al carbón descubierto.

BRASIL

*Carazinho: Colonista-frontana. Variedad comercial de grano rojo, reportada capaz de producir relativamente bien en suelos ácidos. Posee buena resistencia a la roya lineal bajo casi todas las condiciones.

Iassul: IAS-20 Colonias (Frontan x Kenya 58). Se distribuyó en Brasil durante 1963. Variedad alta, muy resistente a Septoria tritici en México y en Noráfrica.

CANADA

*Selkirk: McMurachi-Exchange x Redman^2. Hasta recientemente, la variedad sembrada más extensamente en las partes húmedas de las regiones norteñas de trigo duro rojo de primavera de los EEUU y Canadá es resistente a la roya del tallo.

CHILE

*Huelquen: La variedad comercial más ampliamente sembrada en Chile. Ha mostrado buena resistencia a las tres royas y un alto potencial de rendimiento. Tiene altura normal.

COLOMBIA

*Bonza 55: Yaqui 50- Kentana 48 II-2254-2P-111B-4B-1B. Importante trigo comercial en Colombia y Ecuador que ha mantenido un nivel efectivo de resistencia a la roya lineal y a la roya de la hoja por 15 años. Esta circunstancia es única, dada la explosiva situación de las razas de roya en Colombia.

*Crespo 63: Frocor (Newthatch/Mentana^2-Kenya x Bagé) x Gabo. II-11263-3T-1B-2T-1B-1T. Variedad comercial distribuída conjuntamente por Ecuador y Colombia; tiene un buen nivel de resistencia a la roya lineal.

*Napo 63: Frocor-Frontana/Yaqui 48 x Nariño "S". II-9314-22T-1B-1T. Variedad importante en Colombia y Ecuador; Tiene buena resistencia a las royas del tallo y lineal.

*Palmira 1: Thatcher-Santa Catalina x Frocor. 5962-4T-2B-1T-2B. Esta variedad se incluyó a efecto de probar su supuesta adaptación a climas tropicales cálidos de tierras bajas.

EGIPTO

*Giza 155: Regent-Giza 139^2/Mida x Cadel-CI 12441 x H62^2. Variedad de grano blanco de alto peso específico.

INDIA

*C-306: (Regent 1974 x Czechoslovakia^3) C591^2 x (P19 x C281). Esta variedad de altura mediana, con paja medianamente fuerte se desarrolló para sembrarse en los distritos centrales del Punjab. Es completamente barbada y con glumas pubescentes. Se considera tolerante a las royas, pero es susceptible al carbón volador.

Chhoti Lerma: Lerma Rojo 64 "S" - Huamantla Rojo II 15929-1M-4Y 2M-S-331. Distribuída en la India durante 1967 y en 1970 en Pakistán bajo el nombre de Green Valley. Susceptible a Septoria en México.

*Sonalika: II-53-388-Andes x Pitic "S" - Lerma Rojo 64/B 4946-A4-18-2.1-Yaqui 53 x Yaqui 50^3. II 18427 - 4R-1M. Esta variedad semienana posee un alto potencial de rendimiento y un excelente tipo de grano, pero es susceptible a las royas y a Septoria bajo ciertas condiciones. En la literatura previa se le ha conocido como S-308 y como la cruza (II 53-388 x An) Y + 54 x N10B - LR64 o II 53-388-An x Pi "S" - LR64.

Safed Lerma: Yaqui 50 x Norin 10 Brevor - Lerma 52/ Lerma Rojo S-307. Distribuída por la India durante 1967. Esta variedad es simple enana (un gene), muy semejante a Lerma Rojo 64, pero con paja más fuerte y con grano blanco.

UP 301: Sonora 64 - Lerma Rojo 64. Triple enana que rinde bien bajo buenas condiciones. Se distribuyó para sembrarse en la parte sur de la India. También es promisoria en Egipto y en Noráfrica. Es resistente a las tres royas, pero susceptible a Septoria.

ISRAEL

Hazera 2152: Yaktana 54 A^3 - Norin 10 Brevor II8474A-8T-12B. Distribuída en Israel como variedad comercial en 1969, y sembrada extensamente hacia 1970. Sus rendimientos son comparables a los de Inia 66.

ITALIA

Victor I: 1150-35 x Mara^3 x Frontana-Kenya 58-Newthatch. Línea promisoria de madurez tardía, hábito de crecimiento intermedio y buen potencial de rendimiento. Es susceptible a las royas de la hoja y del tallo, pero tiene resistencia moderada a la roya lineal. En Noráfrica, el Cercano y el Medio Oriente ha mostrado resistencia a Septoria spp. Sus defectos son el bajo peso específico y el gluten débil.

MEXICO

*Náinari 60: (Supremo-Mentana x Gabo) Thatcher-Querétaro x Kenya-Mentana) Gabo P4160-6H-3Y-2C. Variedad alta de paja fuerte, substituída en México por trigos semienanos. Esta variedad alguna vez comercialmente importante todavía se usa mucho en los programas de cruzamiento. Ha mostrado buena adaptación en varios países del Cercano Oriente y en los Ensayos Interamericanos de rendimiento.

*Pitic 62: Yaktana 54 x Norin 10 Brevor 26-1C 7064- 1Y-1H-1R-2M. La primera variedad semienana distribuída en México. Esta variedad tuvo un buen comportamiento en los Ensayos Interamericanos, en los tres Ensayos Cercano Oriente-Americanos, y en los ISWYN's. Tiene un peso específico bajo

y es susceptible a las razas actuales de roya del tallo. En algunos países se le cultiva comercialmente.

*Tezanos Pintos Precoz - Sonora 64 (Lerma Rojo 64A-Tezanos Pintos Precoz x Andes^{3}E: II-22429-16M-1Y-1M-0Y. Nueva línea semienana de gluten fuerte, promisoria en pruebas locales. Aparentemente es una línea hermana se distribuyó en Argentina bajo el nombre de Calidad. En Túnez hay otra línea hermana conocida como Utique.

*Pénjamo 62: (Frontana x Kenya 58-Newthatch) Norin 10 Brevor. II 7078 1R-6M-1R-1M. Una de las primeras variedades semienanas mexicanas. Todavía se le cultiva en varios países. Posee una amplia adaptación.

*Siete Cerros 66: Pénjamo "S" - Gabo 55. II 8156- 1M-2R-4M. Variedad enana de grano blanco, alto potencial de rendimiento y amplia adaptación. A esta variedad y a su hermana de grano rojo, Super X, y a sus reselecciones, se les refiere con varios nombres, inclusive 8156, Kalyansona, S-227, PV-18, Indus 66, Mexipak 65, Laketch, etc. Dichas variedades se siembran extensamente en Pakistán, India y otros países del Cercano Oriente.

Saric 70 = (Bluebird # 3): Ciano "S" x Sonora 64 - Klein Rendidor/Siete Cerros "S" II 23584-26Y-2M-2Y-0M. Variedad semitardía con paja fuerte y baja (triple enana), y grano rojo con un peso hectolítrico de 80.4 kg/hl y con gluten fuerte y elástico. Es moderadamente resistente a Septoria. En México es resistente a la roya del tallo, pero moderadamente susceptible a la roya de la hoja. Se distribuyó en México durante 1970.

Inia 66: Lerma Rojo 64 - Sonora 64. 19008-83M-100Y-100M-100Y-100C. Esta variedad fue entregada conjuntamente por los programas del CIMMYT y del INIA (Instituto Nacional de Investigaciones Agrícolas, de México). Es la variedad semienana más precoz de que se dispone ahora y ha mostrado excelentes calidad de panificación, buen potencial de rendimiento, resistencia al acamado y resistencia a muchas razas de royas del tallo y lineal. Es susceptible a la roya de la hoja, al carbón y al achaparramiento amarillo de la cebada. A esta variedad la caracterizan las glumas blancas y el grano rojo.

Potam 70: Inia "S" x Napo 63 II 22402-6M-4Y-1M-1Y-0M. Variedad precoz con paja corta y fuerte (doble enana), grano blanco con gluten suave y elástico. Rinde aproximadamente igual que Inia bajo las condiciones de México. Es moderadamente susceptible a Septoria. Tiene resistencia a la roya del tallo y susceptibilidad moderada a la roya de la hoja. Fue distribuída como variedad comercial en México en 1970.

Cajeme 71 = (Bluebird # 4): Ciano "S" x Sonora 64 - Klein rendidor/ Siete Cerros "S". II 23584-26Y-2M-3Y-2M-0Y. Distribuída en México como variedad comercial durante 1971. Se trata de una variedad triple enana, hermana de Yécora 70; tiene grano rojo y gluten fuerte. Es resistente a la roya del tallo y roya de la hoja.

Tobari 66 x Super X: 22964-3Y-5M-0Y-501Y-0M. Línea avanzada de alto rendimiento que se muestra prometedora. Moderadamente resistente a Septoria en México, Noráfrica y Turquía.

*Lerma Rojo 64A: (Yaqui 50 x Norin 10-Brevor) (Lerma 52- Lerma Rojo^2). 8724-8Y-1C-1Y. Versión semienana del Lerma Rojo original, derivada a través de retrocruzamiento. Ha mostrado buena adaptación en el Cercano Oriente y en México. Es resistente a muchas razas de roya del tallo y de la hoja, pero es susceptible al carbón y al mildiú polvoriento.

Yécora 70 = (Bluebird # 2): Ciano "S" x Sonora 64 - Klein Rendidor/ Siete Cerros "S". Variedad triple enana distribuída por México durante 1970. La variedad es una línea hermana de Saric 70. Tiene paja fuerte, grano blanco y gluten fuerte y elástico. Rinde un 15% más que Inia 66 bajo las condiciones de México. Es resistente a la roya del tallo y moderadamente susceptible a la roya de la hoja y a Septoria.

Nuri 70 = (Bluebird # 1): Ciano "S" x Sonora 64 - Klein Rendidor / Siete Cerros "S". II 23584-15Y-6M-0Y. Variedad simple enana (con un solo gene), con paja corta y fuerte, grano blanco con gluten fuerte y elástico. En ensayos de rendimiento efectuados en México, Nuri 70 rinde alrededor de un 10% más que Inia 66. Es moderadamente resistente a la roya del tallo y a la roya de la hoja.

*Tobari 66: Tezanos Pintos Precoz -Sonora 64A. 19021-4M-3Y-102M-100Y-101C. Es una variedad enana de grano rojo, de buena calidad y notable resistencia a las enfermedades, inclusive a Septoria. Su potencial de rendimiento pudiera no ser tan alto como el de Siete Cerros. Se le siembra extensamente en varios países.

PAKISTAN

*Chenab 70: C-271 x Willet ($_E$) - Sonora 64. Pk 146-12A- 4A-1A. Variedad semienana, con grano de tipo suave y resistencia moderada a la roya lineal. Las royas del tallo y de la hoja la pueden atacar severamente bajo ciertas condiciones.

RHODESIA

*Lundi: Mara x Lee-Selkirk. S595 A1 A6 B2. Variedad semienana con susceptibilidad moderada a las royas de la hoja y lineal.

*Zambezi: 8156 x Lee-Thatcher x Kenya 338 AC/Lee-Mida-Siete Cerros. Una variedad con buen potencial de rendimiento.

SUDAN

* Lerma Rojo 64 x Norin 10 Brevor x Andes$^{3}_{E}$: Una cruza sobresaliente en varios países. WW en Australia (1969), ANZA en los Estados Unidos (1971), Mexicani en Sudan (1971), Karamau en Nueva Zelandia (1972).

*36896-Cajeme 54^{2} x Yaktana 54A(H): Esta selección semienana es de espiga grande y posee alguna resistencia a las tres royas.

SUDAFRICA

*Turpin 7: Mayo 54 - Norin 10 Brevor x Náinari "S". II 8715-7Y-1C. Triple enana extremadamente susceptible a las razas prevalentes de Puccinia graminis tritici en México y a Septoria en Noráfrica. También es moderadamente susceptible a las royas de la hoja y lineal.

SIRIA

Syrimex: Yaktana 54 - Norin 10 Brevor x Lerma Rojo^{3}. Distribuída en Siria durante 1969. Es otro trigo del tipo de Lerma Rojo que se comporta bien bajo condiciones secas. Se le siembra extensamente en Siria.

TUNEZ

BT2288: Tacuari-Pénjamo 62. Una línea de alto rendimiento, doble enana, con espigas grandes y grano rojo. Es resistente a las royas del tallo y lineal, moderadamente susceptible a la roya de la hoja y susceptible a Septoria.

BT 2281: Tezanos Pintos Precoz-Sonora 64 x Lerma Rojo 64 - Sonora 64/Sonora 64A x Selkirk^{3} - Andes. Tiene buena resistencia a las royas del tallo y lineal es moderadamente susceptible a la roya de la hoja y muy susceptible

a Septoria. Se trata de una variedad enana que rinde aproximadamente lo mismo que Inia en Noráfrica. Su grano es rojo.

ESTADOS UNIDOS DE AMERICA

* Chris: CI13751 Frontana - Thatcher x II-44-29- Thatcher^2. II 53-525-1. Variedad desarrollada en Minnesota, con excelente calidad, buena resistencia a las enfermedades y potencial de rendimiento aceptable. Se le cultiva extensamente en los Estados Unidos y Canadá. Esta variedad, enlistada antes como Minn II 53-525, es alta y parcialmente sensible al fotoperiodo. Tiene una resistencia regular a Septoria.

Proceso de los datos y análisis de varianza

Los coeficientes de infección de enfermedades se analizaron estadísticamente y también se correlacionaron con otras características (por ejemplo, con rendimiento). Sin embargo, para la presentación tabular en este informe, se dan las notas de la escala estándar de roya de la primera repetición en cada sitio, puesto que a partir de ésta es más fácil visualizar la respuesta de una variedad en particular. La reacción media a la roya por localidad se presenta como un índice de la cantidad de roya en esa localidad. Los valores medios de roya relativamente bajos indican baja incidencia y/o virulencia del patógeno. Las medias más altas indican mayor incidencia y/o virulencia. Estas medias constituyen una comparación relativa por localidad y reflejan el grado de infección de ese patógeno en ese ensayo bajo las condiciones que existieron.

Otros índices del comportamiento varietal se analizaron siempre que fue posible y se presentan en los Cuadros. La mayoría de estos valores fueron porcentajes. Varios índices se transformaron a porcentajes.

Los ensayos ISWYN, que incluyen tres repeticiones, se preparan en un diseño de bloques completamente al azar.

Las variables para cada variedad se colectan y luego se calcula el valor de la media. Los rendimientos se ordenan decrecientemente.

Se obtuvieron valores medios para el rendimiento y otras variables para cada variedad. Luego, la media de las medias se calcula para cada variable. A ésta se le llama gran media, y se escribe bajo cada columna de las variables.

A las secuencias restantes para el error estándar de la gran media, coeficiente de variación (CV) y diferencia mínima significativa (DMS) de .05, se les llama análisis de varianza, que se calcula sólo cuando se tienen dos o más repeticiones de datos.

El análisis de varianza para el rendimiento ilustra el punto, y este procedimiento es aplicable para cualquier variable del ISWYN, cuando se repite dos o tres veces.

En los informes de ensayos anteriores, cuando el coeficiente de variación (CV) era mayor de 75%, los datos de esa variable específica se eliminaban y la columna no se imprimía. Esto ocurría con variables aparte del rendimiento. Los especialistas en trigo han solicitado que se impriman variables con CV mayores del 75%. Por consiguiente, en algunos cuadros se observan algunas variables con altos coeficientes de correlación. Un alto coeficiente de correlación se origina de un alto error estándar y bajos valores de la media. Esto ocurre cuando se omiten datos, se registran numerosos valores de cero, hay diferencia en la estimación de valores entre repeticiones, o se debe a la variación natural en el ambiente en que se tienen lo experimentos. Por tanto, el error estimado de la varianza se computó directamente para todas las características reportadas. El coeficiente de variación se expresa en porcentaje (razón de error estándar/gran media x 100 x la raíz cuadrada nr donde n = número de variedades y r = número de repeticiones. El coeficiente de variación se emplea para observar la variación entre dos variables entre sitios.

La diferencia mínima significativa (DMS) se calcula al nivel del 5%. La ventaja de la DMS es que es fácil usarla para hacer comparaciones entre dos medias para dos localidades.

Mediante estudios de correlación se puede algunas veces obtener información introspectiva de los factores que influyen en el rendimiento. Se hicieron correlaciones sobre todos los posibles pares de factores por localidad, utilizando el valor de la media para cada característica reportada. Se computaron correlaciones sobre las medias de las repeticiones más que sobre los valores registrados debido a que algunos datos se reportaron frecuentemente para sólo una repetición. El tamaño de las poblaciones es más bien pequeño para este tipo de análisis, de manera que se pudieran encontrar algunas correlaciones espurias. Se recomienda cierta precaución al interpretar estos valores. Muchos investigadores encuentran útiles los análisis de correlación y por tal razón se presentan éstos como parte del cuadro de resumen para cada localidad, aunque se advierte de sus limitaciones.

Las medias generales para localidades se computaron para cada variable y se presentan aquí cuando el número de observaciones justificó su inclusión. Con la excepción de los datos sobre roya, las unidades reportadas son las que se utilizan en todo este informe. Con propósitos aritméticos las medias de reacciones a la roya se computaron sobre los valores del coeficiente de infecciór (CI). Se sugiere una comparación de los CI relativos para seleccionar variedades resistentes a la roya potencialmente útiles. Los materiales con valores promedio menores de 10 se pueden considerar un tanto resistentes, mientras

que las variedades con valores mayores de 20 pudieran considerarse susceptibles.

Al analizar y resumir estos datos se han encontrado muchos problemas. Nuestro intento es suministrar al lector la cantidad máxima posible de información útil y, de paso, no confundirlo con muchos detalles de la computación.

Resultados y Discusión

Para el análisis del Séptimo ISWYN, al CIMMYT se retornaron datos de 67 sitios que representaron a 42 países. Las localidades que reportaron datos se presentan en el mapa de la figura 2, con los números del cuadro respectivo. La figura 3 ilustra el ciclo de cultivo en cada sitio y su altitud sobre el nivel del mar. Los ensayos se cultivaron durante diferentes ciclos en los diversos sitios del mundo durante 1970-71.

Los datos se presentan en forma resumida, un cuadro para cada sitio de prueba. La gran media de cada característica se calcula y se presenta en cada cuadro con otros datos estadísticos pertinentes.

El Séptimo ISWYN constituye el décimo año de prueba mediante 14 ensayos diferentes: tres Ensayos Interamericanos de 1961 a 1963; cuatro Ensayos Cercano Oriente-Americanos de 1962 a 1964, y siete Ensayos Internacionales de Rendimiento de Trigos de Primavera de 1965 a 1971.

El mayor rendimiento medio sobre todos los sitios para una sola variedad es un 4,105.65 kg/ha, logrado en este ISWYN por la línea LR64 x N10B-An^{3}_{E}. Una línea semejante procedente de Australia ocupó el 8o. lugar en el ISWYN anterior (Sexto). Ambas representan un grupo de variedades que se han comportado bien y que ahora se distribuyen profusamente bajo los nombres de WW-15 en Australia, Anza en los EEUU, Mexicani en Sudán y Karamau en Nueva Zelandia. En este Séptimo ISWYN hubo 15 nuevas entradas de siete diferentes países. Cinco de estas nuevas entradas figuraron entre las 10 variedades más rendidoras. Por ejemplo, Bluebird # 4 (Cajeme 71), Syrimex y Potam 70, nuevas entradas todas, ocuparon el segundo, tercero y cuarto lugar respectivamente.

Ek rendimiento medio para estas variedades en todas las localidades que de unos 4,000 kg/ha. De estos datos resulta evidente que uno de los principales propósitos del ISWYN --el de identificar variedades de alto rendimiento

amplia adaptación y con resistencia a las enfermedades-- se ha conseguido en un alto grado. La amplia adaptación continúa siendo uno de los puntos fuertes del programa internacional de mejoramiento de trigo del CIMMYT, y es el resultado de la selección de materiales procedentes de ambientes diversos y diferentes.

La principal razón del éxito de este programa ha sido la excelente cooperación de los especialistas de trigo de todos los sitios que se anotan en esta publicación.

RESULTATS DE LA SEPTIEME PEPINIERE INTERNATIONALE DE RENDEMENT DE BLE DE PRINTEMPS

1970 - 1971

Extrait

La Septième Pépinière Internationale de Rendement de Blé de Printemps (PIRBP) comprit 50 variétés de blé de printemps de 18 pays. Quatre vingt neuf sélections de cet expériment furent distribuées parmi les collaborateurs. Soixante sept sélections des résultats sont réportées dans ce Bulletin de Recherche.

Des tableaux individuels réportant des résultats, de même qu'un analyse simple de variation et un analyse de corrélation des caractéristiques enregistrées, sont fournis pour chaque emplacement d'essai. Un tableau est fourni résumant la valeur moyenne de chaque caractéristique enregistrée par-dessus tous les emplacements d'essai.

La Sélection LR 64 x N10B -An_E3, lignée semi-naine en provenance de Sudan, eut le rendement le plus haut par-dessus tous les emplacements d'essai. Cette variété fut recemment nommée Mexicani au Sudan. Trois nouvelles entrées, Bluebird # 4, (délivrée maintenant comme Cajeme 70) Syrimex et Potam 70 occupèrent le 2ème, 3ème et 4ème rang respectivement en ce qui concerne la capacité de rendement par-dessus tous les emplacements d'essai.

Résultats et Discussion

Des données de 67 emplacements représentant 42 pays, furent renvoyées au CIMMYT pour leur analyse pour la septiéme PIRBP. L'illustration 2 contient un map des emplacements avec leur numéro correspondant dans le tableau. L'illustration 3 montre la saison de culture à chaque emplacement et son élévation sur le niveau de la mer. Les essais furent cultivés a des saisons différentes dans des endroits différents du monde pendant 1970-71.

Les données sont reportées dans un résumé; un tableau pour chaque emplacement d'essai. La moyenne totale de chaque caractère est calculée et présentée dans chaque tableau, avec d'autres statistiques pertinantes.

La septième PIRBP représent la dixième année d'épreuves au travers de 14 essais différents: Trois pépinières Interaméricaines de 1961 à 1963, quatre pépinieres Proche Orient-américaines de 1962 à 1964 et sept pépinieres Internationales de Rendement de Blé de Printemps de 1965 à 1971.

La moyenne de rendement la plus haute d'une seule variété par dessus tous les emplacements est de 4105.65 kg/ha, atteinte dans cette PIRBP par l'entrée LR 64 x N10B-An$_E$3. Une entrée semblable en provenance d'Australie fut rangée 8e. dans le PIRBP précédente (6e.). Ce sont de variétés qui ont bien répondu et qui sont maintenant largement distribuées sous le nom de WW-15 en Australie, Anza aux Etats Unis, Mexicani au Sudan et Karamau en Nouvelle-Zélande. Il y eut 15 entrées nouvelles dans cette PIRBP en provenance de sept pays différents. Cinq de ces entrées nouvelles sont rangées parmi les 10 variétés de rendement supérieur. Par exemple, Bluebird # 4 (Cajeme 70) Syrimex et Potam 70, toutes elles des entrées nouvelles, rangèrent deuxieme, troisième et quatrième respectivement.

La moyenne de rendement pour ces variétés dans tous les emplacements est d'environ 4,105.65 kg/ha. A partir de cette donnée il est évident qu'un des buts principaux de la PIRBP, a savoir, l'identification de variétés de haut rendement, de large adaptabilité et de résistance à la maladie, a été menée à bien avec beaucoup de succes. L'ample adaptation est encore l'un des buts principaux dans le programme international de sélection du CIMMYT, et elle est le résultat du choix de matériels de sélection dans un nombre d'environnements différents et opposés.

I'excellente coopération reçue des chercheurs de blé dans le pays réportés dans ce Bulletin, a été la raison principale du succes du program.

Glossary of terms used in tables
Glosario de términos usados en los cuadros
Glossaire de terms utilisés dans les tableaus

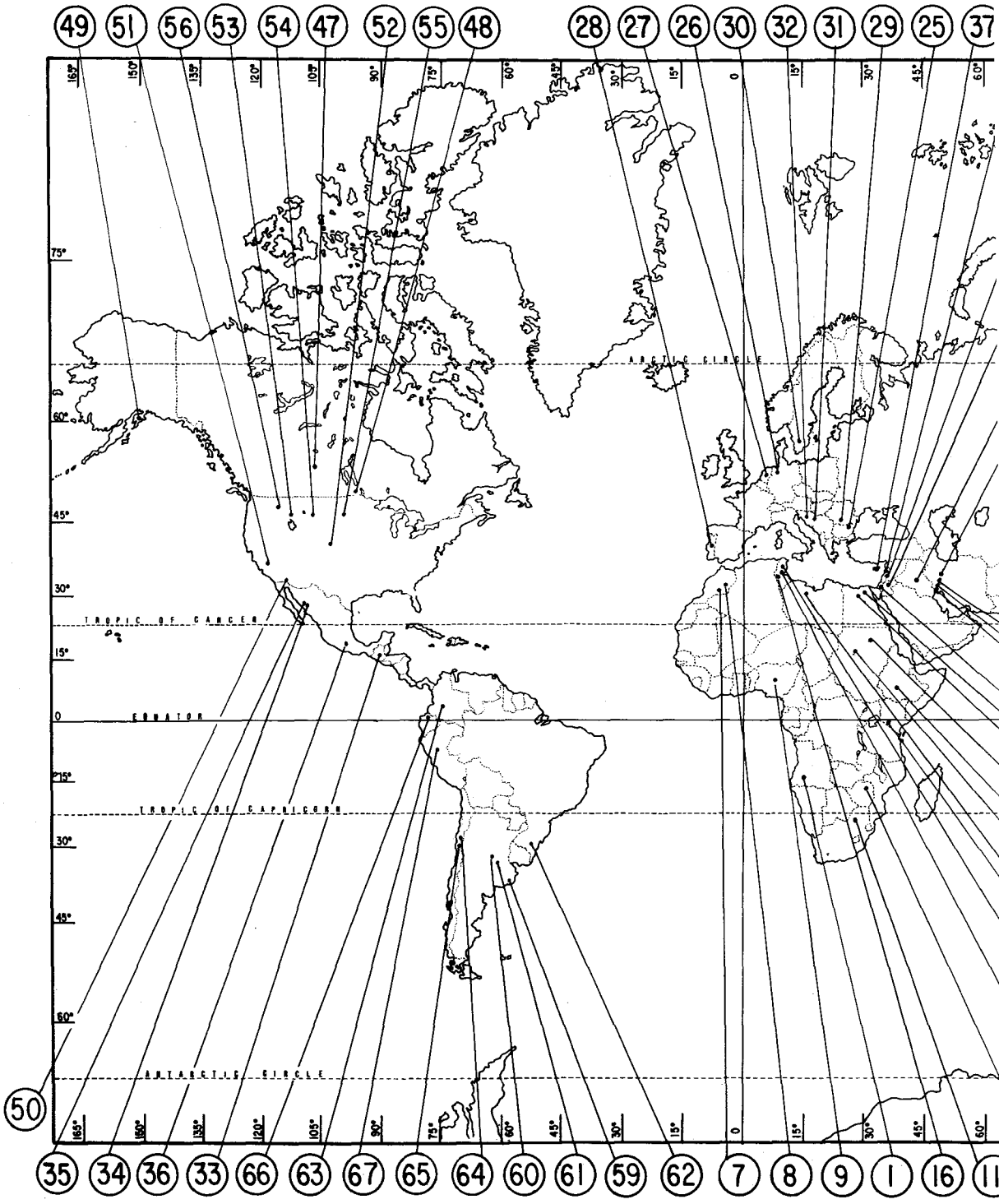
English	Español	Francais
Variety	Variedad	Variété
Cross	Cruza	Croisement
Origin	Origen	Origine
Yield	Rendimiento	Rendement
Test weight	Peso específico	Test du poids
Days to flower	Días a la floración	Jours à la floraison
Days to maturity	Días a la maduración	Jours à la maturation
Height	Altura	Hauteur
Lodging	Acamado	Verse
1,000 grain weight in grams	Peso de 1,000 granos en gramos	Poids de 1000 grains en grammes
Grand mean	Gran media	Grande moyenne
Standard error of grand mean	Error estándard de la gran media	Erreur standard de la grande moyenne
Coefficient of variation	Coeficiente de variación	Coefficient de variatio
Least significant difference (LSD)	Diferencia mínima significativa (DMS)	Plus petite différence significative (PPDS)
Variety means	Medias de variedad	Moyenne variétale
Date planted	Fecha de siembra	Date de semís
Date harvested	Fecha de cosecha	Date de récolte
Amount of moisture	Cantidad de humedad	Montant d'humidité
Nitrogen	Nitrógeno	Azote
Phosphorous	Fósforo	Phosphore
Potassium	Potasio	Potasse
Stripe rust	Roya lineal	Rouille jaune
Leaf rust	Roya de la hoja	Rouille brune
Stem rust	Roya del tallo	Rouille noire
Shattering	Desgrane	Egrenage
Frost damage	Daño de heladas	Dégâts par la gelée
Average coefficient of infection	Coeficiente promedio de infección	Coefficient moyer d'infection
Weeding	Deshierbe	Desherbage
Grain quality	Calidad de grano	Qualité du grain
Root rot	Pudrición de la raíz	Piétin-verse
Late tillering	Acamado tardío	Tallage tardif
Leaf blight	Tizón de la hoja	Charbon de la feuille

English	Español	Francais
Ergot	Cornezuelo	Ergot
Growth stage	Estadío de crecimiento	Stade végétatif
Septoria	Septoriosis	Septoriose
Protein (Kjeldhal method)	Proteína por método de Kjeldhal	Prótéines par la méthode Kjeldhal
Nursery	Vivero, ensayo	Pépinière

FIGURE 1

CIMMYT WHEAT NURSERIES DISTRIBUTION 1970

Type of crop	Name of experiment	GEOGRAPHIC REGION OF THE WORLD: Europe (18 countries)	Middle East (9 countries)	Africa (14 countries)	Asia (9 countries)	North America (2 countries)	Meso America (2 countries)	South America (6 countries)	Oceania (2 countries)	Subtotals by experiment	Totals by crop
Bread wheats	7th International Spring Wheat Yield Nursery	10	13	19	13	13	6	12	3	89	
	Elite Selection Yield Trials 1 & 2	2	4	7	6	5	6	9	0	39	
	4th International A & B Bread Wheat Screening Nurseries	9	9	11	13	10	13	19	2	86	
	F2 Bulk Population	2	10	13	12	10	1	25	0	73	
	1st International Septoria Nursery	1	2	3	0	1	5	2	0	14	
	Bread Wheat Subtotals	24	38	53	44	39	31	67	5		301
Durum wheats	2nd International Durum Yield Nursery	6	15	11	4	6	4	3	0	49	
	2nd International Durum Screening Nursery	3	7	4	3	7	5	4	0	33	
	Durum Wheat Subtotals	9	22	15	7	13	9	7	0		82
Triticale	2nd International Triticale Yield Nursery	3	5	4	6	4	2	5	0	29	
	1st International Triticale Screening Nursery	2	1	4	0	6	3	5	2	23	
	Triticale Subtotals	5	6	8	6	10	5	10	2		52
	Totals by Geographic Area	38	66	76	57	62	45	84	7		
	Percent of the Grand Total	9	15%	18%	13%	14%	10%	19%	2%	Grand Total	435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ARCTIC CIRCLE
TROPIC OF CANCER
EQUATOR
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FIGURE 2

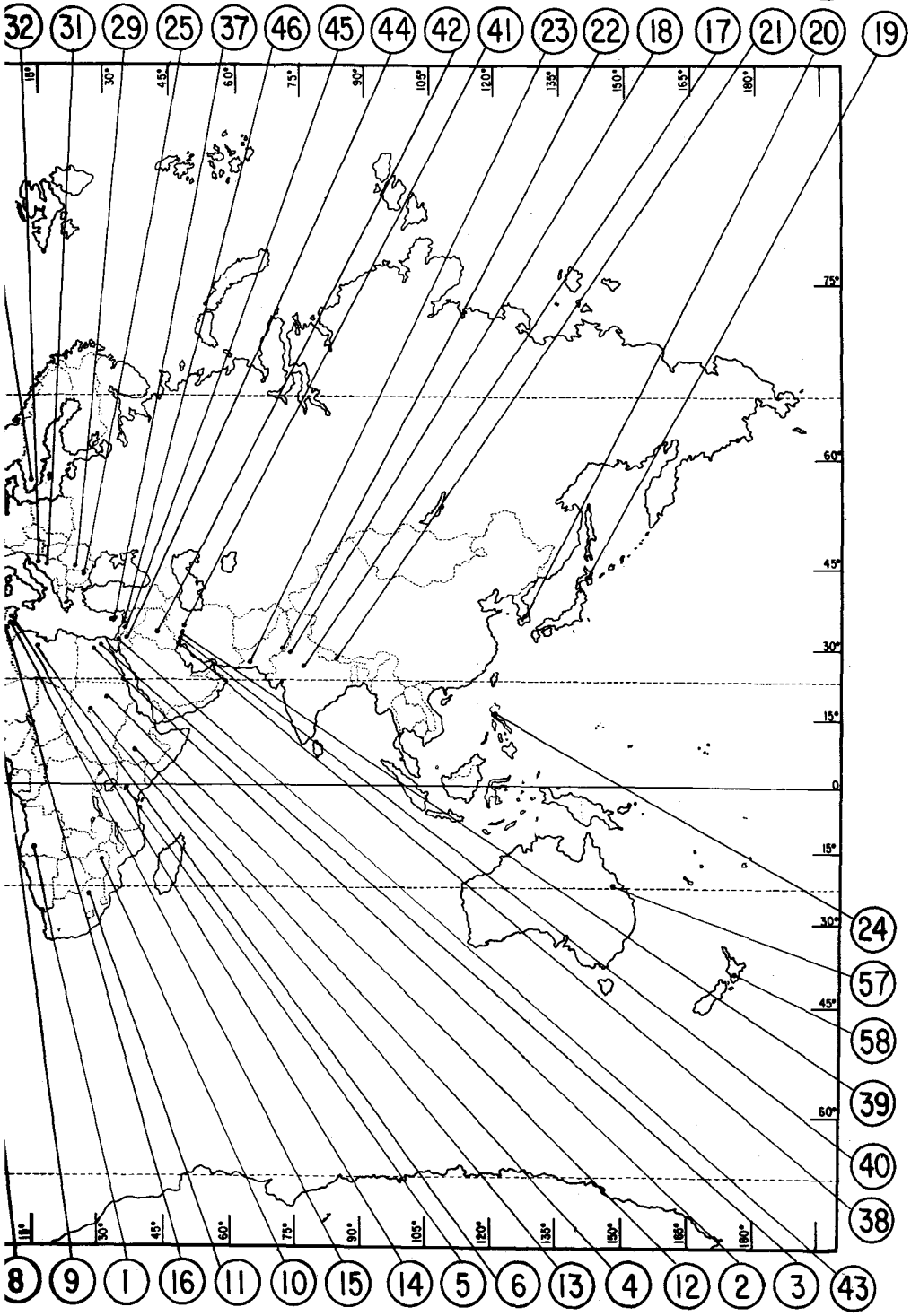
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FIGURE 3

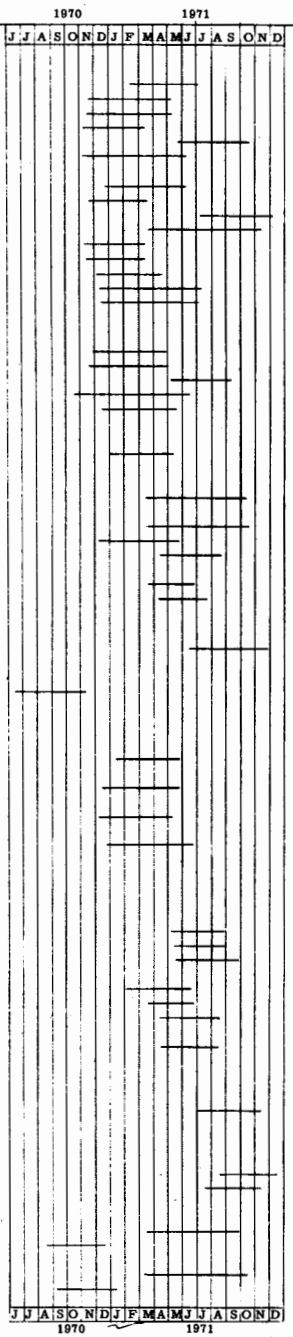

Table No.		ELEVATION (meters)
	AFRICA	
1	Nova Lisboa, Angola.	1,700
2	Giza, Egypt.	21
3	Sakha, Egypt.	21
4	Melka Werer, Ethiopia.	750
5	Njoro, Kenya.	2,164
6	Tripoli, Libya.	10
7	Beni Mellal, Morocco*	500
8	Merchouch, Morocco.	395
9	Samaru-Zaria, Nigeria.	780
10	Salisbury, Rhodesia.	1,495
11	Roodeplaat, South Africa.	1,164
12	Ed-Damer, Sudan.	353
13	Khashm el Girba, Sudan.	440
14	Ariana, Tunisia.	20
15	Beja, Tunisia.	161
16	Koudiat, Tunisia.	134
	ASIA	
17	Rajasthan, India.	390
18	Ludhiana, India.	247
19	Hokkaido, Japan.	196
20	Suwon, South Korea.	40
21	Lalitpur, Nepal.	1,360
22	Lyallpur, West Pakistan*	213
23	Tandojam, West Pakistan*	19
24	San Mateo, Philippines.	69
	EUROPE	
25	Gen. Toschewo, Bulgaria.	236
26	Waterneverstorf, Germany*	5
27	Rilland, Netherlands.	- 4
28	Elvas, Portugal.	208
29	Judetul Cluj, Romania.	428
30	Landskrona, Sweden*	5
31	Novi Sad, Yugoslavia.	84
32	Zagreb, Yugoslavia.	116
	MESOAMERICA	
33	Quezaltenango, Guatemala.	2,407
34	CIANO, Sonora, México* first date	40
35	CIANO, Sonora, México* second date	40
36	Toluca, México.	2,675
	MIDDLE EAST	
37	Athienou, Cyprus*	150
38	Ahwaz, Iran.	20
39	Chpan, Iran*	
40	Dezful, Iran.	83
41	Gorgan, Iran*	120
42	Baghdad, Iraq.	34
43	R. D. S. de Gat, Israel*	120
44	Amman, Jordan.	980
45	Beirut, Lebanon*	995
46	Tel-Amara, Lebanon*	940
	NORTH AMERICA	
47	Saskatchewan, Canada.	508
48	Manitoba, Canada.	235
49	Palmer, Alaska. U.S.A.	61
50	Yuma, Arizona. U.S.A.*	46
51	Davis, California. U.S.A.	16
52	Cargill, Colorado. U.S.A.	1,524
53	Aberdeen, Idaho. U.S.A.	1,356
54	Bozeman, Montana. U.S.A.*	1,463
55	Casselton, N. Dakota. U.S.A.	213
56	Pullman, Washington. U.S.A.*	762
	OCEANIA	
57	Queensland, Australia.	666
58	Palmerston North, New Zealand*	15
	SOUTH AMERICA	
59	Buenos Aires, Argentina.	130
60	Prov. de Cordoba, Argentina.	110
61	Buenos Aires, Argentina*	65
62	Rio Grande do Sul, Brazil*	529
63	Tibaitatá, Colombia.	2,640
64	Paine, Chile.	390
65	Santiago, Chile*	629
66	Santa Catalina, Ecuador.	3,058
67	Lima, Peru.	238
68	Summary	

* Date harvested not reported

TABLES

TABLE 1 AFRICA ANGOLA NOVA LISBOA

INSTITUTO DE INVESTIGACAO AGRONOMICA DE ANGOLA
COOPERATORS VASCONCELOS GONCALVES DE MACEDO.

LATITUDE	012 44'S	DATE PLANTED	02/17/71	NITROGEN	108.0 KG/HA
LONGITUDE	015 50' E	DATE HARVESTED	07/01/71	PHOSPHORUS	084.0 KG/HA
ELEVATION	+01700 M.ABOVE S.L.	AMOUNT OF MOISTURE	0356 MM	POTASSIUM	102.0 KG/HA

LOCAL VARIETY 1679 [(BPXPN.K58)GJ543G354. II-5018-12C-1C-1C. HEAVY ATTACK OF SEPTORIA.

VARIETY NUMBER	VARIETY OR CROSS	ORIGIN	YIELD KG/HA	TEST WEIGHT	DAYS TO FLOWER	DAYS TO MATURITY	STEM RUST	HEIGHT CM.	SHATTERING
25	IASSUL	BRAZIL	2366.4	81.8	57.0	111.6	60S	110.0	R
46	FALPIRA 1	COLOMBIA	2160.8	84.3	48.6	106.6	10MR	85.0	R
28	TINGALEN	AUSTRALIA	2157.5	84.5	58.3	113.6	0	75.0	S
10	CAECTO	ARGENTINA	2095.3	86.0	57.6	123.3	30S	103.3	R
32	CHHOTI LERMA	INDIA	2040.9	86.9	53.3	109.0	TMR	65.0	R
9	SON 64A X TZPP-NAINARI 60 (C)	ARGENTINA	1928.6	86.6	45.3	101.0	0	68.3	R
6	PIAPCATES	ARGENTINA	1903.1	87.2	57.3	114.3	30S	91.6	R
2	PITIC 62	MEXICO	1887.5	81.6	52.6	113.0	10S	80.0	R
23	SAFIC 70 =(BLUEBIRD # 3)	MEXICO	1863.1	83.6	61.0	116.6	TMS	56.6	S
4	CARAZINHO	BRAZIL	1800.9	85.7	65.6	126.3	10S	103.3	R
40	TOBARI 66	MEXICO	1794.2	87.3	44.3	102.3	0	66.6	R
34	CAJEME 71 =(BLUEBIRD # 4)	MEXICO	1786.4	84.8	64.0	120.3	0	61.6	S
33	SONALIKA	INDIA	1727.6	86.3	39.0	101.6	10MS	66.6	R
30	CRESPO 63	COLOMBIA	1686.4	87.6	48.0	110.0	TS	80.0	R
41	SAFED LERMA	INDIA	1677.6	86.6	48.6	106.6	TS	68.3	R
13	SON64 X TZPP-NAINARI 60 (B)	ARGENTINA	1667.6	81.8	50.6	113.6	TS	63.3	R
5	BONZA 55	COLOMBIA	1649.8	83.3	56.6	115.0	60S	90.0	R
12	FATC ARGENTINO	ARGENTINA	1647.6	87.5	43.6	103.0	0	55.0	R
42	NECORA 70 =(BLUEBIRD # 2)	MEXICO	1570.9	84.0	44.3	114.3	TS	53.3	S
3	(TZPP-SON 64) (LR64A-TZPP X AVE3)	MEXICO	1567.6	87.3	45.0	101.0	10MR	60.0	R
24	HUELQUEN	CHILE	1547.6	85.8	46.6	103.6	TMS	75.0	
45	NURI 70 =(BLUEBIRD # 1)	MEXICO	1488.7	86.4	45.0	103.0	0	60.0	R
17	SYRIMEX	SYRIA	1449.8	86.8	47.3	107.3	TS	65.0	

19	[illegible]	INDIA	[illegible]	[illegible]	62.3	118.6	TS	88.3	R
22	LERMA ROJO 64 X N10B X ANE3	SUDAN	1403.1	86.4	51.6	109.6	30MS	60.0	S
1	NAINARI 60	MEXICO	1403.1	75.1	61.3	117.6	80S	86.6	R
48	UP 301	INDIA	1399.8	85.1	45.3	101.6	0	45.0	S
47	SCACFA 64-KLEIN REALDOR	ARGENTINA	1394.3	86.7	42.6	101.0	0	61.6	R
27	INIA 66	MEXICO	1374.3	86.6	42.3	101.0	0	60.0	
7	36896-CJ542 X YAKTANA 54 A(H)	SUDAN	1367.6	86.1	46.3	113.6	TS	68.3	R
37	ET 2288	TUNISIA	1366.5	86.4	43.6	103.0	TS	60.0	6S
21	CHRIS	USA	1350.9	85.8	54.0	113.6	TS	85.0	
31	FCIAM 70	MEXICO	1333.1	85.9	39.0	101.0	0	56.6	S
8	PENJAMO 62	MEXICO	1319.8	85.7	48.0	101.6	TS	63.3	R
26	TUFFIN 7	S. AFRICA	1318.7	72.2	60.6	117.6	80S	51.6	R
38	LERMA ROJO 64A	MEXICO	1310.9	87.1	43.6	101.6	TS	61.6	S
16	GIZA 155	EGYPT	1293.2	84.1	54.0	114.3	50S	78.3	R
20	VICTOR 1	ITALY	1258.7	80.2	63.0	113.0	60S	60.0	
15	ZAMBEZI	RHODESIA	1242.0	86.9	45.0	110.3	10MS	55.0	VS
44	ET 2281	TUNISIA	1188.7	85.5	44.6	106.3	0	56.6	R
43	MEXICO 120	AUSTRALIA	1183.2	79.4	53.0	107.3	50S	50.0	R
18	NAPO 63	COLOMBIA	1180.9	92.8	43.6	101.0	TMR	71.6	R
50	LOCAL VARIETY		1144.3	82.1	46.3	103.0	TS	70.0	MS
11	CHENAB 70	PAKISTAN	1101.0	72.7	49.3	102.3	60S	75.0	R
14	SIETE CERROS 66	MEXICO	1003.2	79.0	47.0	101.0	60MS	58.3	VS
36	TOB) E156	MEXICO	961.0	84.4	44.3	102.3	20MS	48.3	S
49	BUCK MANANTIAL	ARGENTINA	769.9	81.7	77.3	131.6	10S	68.3	R
29	LUNDI	RHODESIA	705.4	82.1	47.0	101.0	60S	50.0	S
35	SELKIRK	CANADA	416.6	-	84.0	134.6	TS	70.0	R
		GRAND MEAN	1482.1	82.4	51.3	109.4	16.0	68.6	
	STANDARD ERROR OF GRAND MEAN		41.5	1.1	0.2	0.2	0.9	0.5	
	COEFFICIENT OF VARIATION		34.3%	17.3%	6.2%	2.5%	73.2%	10.5%	
	LSD VARIETY MEANS 5 PC		1017.2	27.7	6.3	5.6	23.4	14.5	

CORRELATIONS

YIELD	KG/HA						
TEST	WEIGHT	0.46**					
DAYS TO	FLOWER	-0.10	-0.59**				
DAYS TO	MATURITY	-0.00	-0.46**	0.90**			
STEM	RUST	-0.16	-0.06	0.23	0.10		
HEIGHT	CM.	0.48**	-0.01	0.37**	0.43**	0.11	
SHATTERING		0.00	0.00	0.00	0.00	0.00	0.00

* SIGNIFICANT AT THE 5 LEVEL ** SIGNIFICANT AT THE 1 LEVEL

TABLE 2 AFRICA EGYPT

GIZA EXPERIMENT STATION.
COOPERATORS DR.M.P. SADEK AND WHEAT STAFF MEMBERS.

LATITUDE 031 00'N DATE PLANTED 11
LONGITUDE 030 00'E DATE HARVESTED 05
ELEVATION +00021 M.ABOVE S.L. AMOUNT OF MOISTURE -

LOCAL VARIETY GIZA 156. GOOD NATURAL INFECTION OF P.

VARIETY NUMBER	VARIETY OR CROSS	ORIGIN	YIELD KG/HA
34	CAJEME 71 =(BLUEBIRD # 4)	MEXICO	6777.7
42	YECORA 70 =(BLUEBIRD # 2)	MEXICO	6649.9
50	LOCAL VARIETY		6555.5
17	SYRIMEX	SYRIA	6283.3
22	LERMA ROJO 64 X NIOB X ANE3	SUDAN	6266.6
31	POTAM 70	MEXICO	6161.0
16	GIZA 155	EGYPT	6066.6
23	SARIC 70 =(BLUEBIRD # 3)	MEXICO	5955.5
27	INIA 66	MEXICO	5844.4
36	TOB) E156	MEXICO	5805.5
8	FERJAMC 62	MEXICO	5788.8
33	SONALIKA	INDIA	5783.3
11	CHENAB 70	PAKISTAN	5711.0
41	SAFED LERMA	INDIA	5622.1
13	SON64 X TZPP-NAINARI 60 (B)	ARGENTINA	5616.6
7	36856-CJ542 X YAKTANA 54 A(H)	SUDAN	5555.5
15	ZAMBEZI	RHODESIA	5544.4
43	MEXICO 120	AUSTRALIA	5522.2
44	BT 2281	TUNISIA	5522.1
14	SIETE CERROS 66	MEXICO	5499.9
47	SONORA 64-KLEIN REMOLDOR	ARGENTINA	5266.6
48	UP 301	INDIA	5116.6
9	SCP 64A X TZFF-NAINARI 60 (C)	ARGENTINA	5083.3
45	NURI 70 =(BLUEBIRD # 1)	MEXICO	4977.7
39	NAZERA 2152	ISRAEL	4972.2
32	CHHOTI LERMA	INDIA	4849.9
26	TUFFIN 7	S. AFRICA	4844.4
40	TOBARI 66	MEXICO	4533.3
2	FITIC 62	MEXICO	4533.3
20	VICTOR 1	ITALY	4388.8
29	LUNDI	RHODESIA	4377.7
19	C-306	INDIA	4372.2
3	(TZPP-SON 64) (LR64A-TZPP X ANE3)	MEXICO	4364.4
12	FAIC ARGENTINO	ARGENTINA	4338.8
38	LERMA ROJO 64A	MEXICO	4222.2
28	TIPOALEN	AUSTRALIA	4072.2
18	NAPC 63	COLOMBIA	3816.6
37	BT 2288	TUNISIA	3499.9
1	NAINARI 60	MEXICO	3344.4
24	KLELQUEN	CHILE	3322.2
6	PIAMONTES	ARGENTINA	3111.1
30	CRESPO 63	COLOMBIA	3077.7
46	PALMIRA 1	COLOMBIA	3022.2
10	CAECTC	ARGENTINA	3022.2
5	BONZA 55	COLOMBIA	2088.8
21	CHRIS	USA	1911.1
4	CARAZINHO	BRAZIL	1711.1
49	BUCK MANANTIAL	ARGENTINA	1361.1
25	IASSLL	BRAZIL	1338.8
35	SELKIRK	CANADA	1322.2

GRAND MEAN	4575.5
STANDARD ERROR OF GRAND MEAN	109.3
COEFFICIENT OF VARIATION	29.2%
LSD VARIETY MEANS 5 PC	2678.7

CORRELAT

YIELD KG/HA TEST WEIGHT	0.23
DAYS TO FLOWER	-0.51**
DAYS TO MATURITY	-0.46**
LEAF RUST	0.02
STEM RUST	-0.00
HEIGHT CM.	-0.65**
SHATTING	0.00
1000 GRN WGT GRMS	0.53**

SIGNIFICANT AT THE 5 LEVEL ** SIGNI

GIZA

/26/70 NITROGEN 029.0 KG/HA
/05/71 PHOSPHORUS 016.0 KG/HA
--- MM POTASSIUM ---.- KG/HA

RECONDITA. WEEDS WERE CONTROLLED BY HAND.

TEST WEIGHT	DAYS TO FLOWER	DAYS TO MATURITY	LEAF RUST	STEM RUST	HEIGHT CM.	SHATTERING	1000 GRN WGT GRMS
82.1	99.6	147.3	10MR	0	86.6	S	47.1
82.5	101.3	149.0	TRMS	0	71.6	S	47.7
82.7	92.6	149.3	TRMR	0	115.0	R	55.7
82.5	96.6	153.0	90S	0	108.3	R	43.1
83.5	100.3	154.3	90S	5MS	86.6	MS	37.3
80.7	87.0	137.3	TRMR	0	93.3	S	45.0
82.0	93.6	151.6	90S	5MR	120.0	R	46.7
80.7	97.6	143.6	TRMR	0	78.3	S	41.0
84.3	88.6	138.3	0	0	108.3	S	44.3
77.5	90.6	140.0	40S	5MS	91.6	MS	36.3
83.1	94.0	144.0	10X	0	103.3	MS	47.1
83.1	83.6	144.6	TRMR	0	101.6	MR	57.5
83.0	94.0	150.0	30S	0	103.3	S	51.3
83.0	95.3	149.3	TRMR	0	110.0	MR	47.1
80.7	96.6	153.6	TRMR	0	100.0	MR	43.0
80.3	88.0	149.6	70S	5MR	101.6	R	49.1
83.0	94.0	154.0	80S	0	95.0	MS	34.0
81.1	93.0	138.6	10MR	0	68.3	S	40.7
82.5	87.6	143.3	60S	0	100.0	S	40.3
83.7	97.0	151.3	90S	0	101.6	MR	39.7
82.1	92.0	145.3	0	0	100.0	S	41.0
85.1	95.0	147.0	0	0	66.6	MR	43.0
82.0	91.0	147.0	TRMS	0	98.3	MS	35.1
83.0	92.6	148.3	TRMR	0	101.6	MS	42.5
82.1	90.3	146.0	90S	10MR	95.0	S	49.5
83.5	94.3	150.3	20S	5MS	103.3	R	38.0
79.7	100.6	145.3	TRMS	TRMR	66.6	S	41.7
82.5	92.6	144.3	0	0	105.0	MR	43.7
78.5	95.0	148.6	70S	0	105.0	MR	39.0
81.0	107.6	154.6	80S	0	90.0	S	41.0
82.0	89.6	142.6	50S	0	91.6	MS	42.1
83.0	92.6	150.6	90S	5MR	118.3	MS	51.7
83.5	93.6	146.3	0	0	103.3	MS	39.3
83.7	97.3	153.0	20MS	10MS	103.3	MR	33.3
83.1	92.0	145.6	0	0	111.6	MR	43.7
82.1	98.6	151.0	40S	0	108.3	MS	40.0
82.7	90.0	141.3	90S	0	120.0	MR	41.3
83.1	88.3	150.3	0	0	100.0	MS	43.0
81.3	96.6	148.3	30S	5MR	121.6	R	39.7
81.7	99.0	151.0	0	5MR	116.6	MS	36.0
84.0	103.0	144.0	50S	0	126.6	R	39.0
82.7	93.3	153.0	5S	TRR	111.6	MR	41.3
81.0	93.6	146.6	60S	10MS	123.3	MR	45.7
83.0	101.3	157.6	20MR	0	120.0	R	33.0
80.7	98.6	153.6	60S	0	121.6	R	40.0
82.1	100.0	153.3	0	0	136.6	MR	34.1
81.3	101.6	157.0	0	0	126.6	MR	36.5
81.0	116.6	160.6	TRMR	0	116.6	R	29.0
80.1	103.0	149.6	0	0	138.3	MS	39.7
77.0	109.3	159.6	90S	0	120.0	MR	33.5
81.9	95.6	148.7	29.8	0.8	104.2		41.8
	0.2	0.3			0.5		
	3.7%	3.2%			6.2%		
	7.1	9.7			12.9		

NONS

-0.27*						
-0.05	0.66**					
-0.10	0.03	0.20				
0.00	-0.08	0.03	0.25			
0.13	0.17	0.36**	0.12	0.06		
0.00	0.00	0.00	0.30	0.00	0.00	
0.20	-0.53**	-0.36**	0.00	-0.05	-0.15	0.00

ICANT AT THE 1 LEVEL

TABLE 3 AFRICA EGYPT SAKHA

SAKHA AGRICULTURAL RESEARCH STATION.
COOPERATORS DR. E.H. TALAAT AND DR. O.H. KHALIL.

LATITUDE	031 00'N	DATE PLANTED	11/24/70	NITROGEN	047.0 KG/HA
LONGITUDE	031 00'E	DATE HARVESTED	05/12/71	PHOSPHORUS	016.0 KG/HA
ELEVATION	+00021 M.ABOVE S.L.	AMOUNT OF MOISTURE	---- MM	POTASSIUM	---.- KG/HA

LOCAL VARIETY GIZA 156. CLIMATIC CONDITIONS NOT REPORTED. STRIPE RUST AND STEM RUST LATE ATTACK. INSECTS, WEEDS AND PESTS NOT REPORTED.

VARIETY NUMBER	VARIETY OR CROSS	ORIGIN	YIELD KG/HA	DAYS TO FLOWER	DAYS TO MATURITY	LEAF RUST	HEIGHT CM.	LODGING
48	LP 301	INDIA	5199.9	100.0	151.0	0	80.0	0.0
1	NAINARI 60	MEXICO	4894.4	107.0	154.0	5/S.	120.0	10.0
17	SYRIMEX	SYRIA	4805.5	109.0	154.0	/MR.	110.0	0.0
3	(TZPP-SON 64) (LR64A-TZPP X ANE3)	MEXICO	4716.6	101.0	146.0	0	105.0	35.0
2	FITIC 62	MEXICO	4666.6	105.0	153.0	0/S.	110.0	50.0
6	PIAMONTES	ARGENTINA	4627.7	111.0	153.0	/MS.	135.0	0.0
47	SONORA 64-KLEIN REMIDOR	ARGENTINA	4595.9	101.0	150.0	0	100.0	5.0
16	GIZA 155	EGYPT	4555.5	103.0	156.0	5/S.	120.0	0.0
41	SAFED LERMA	INDIA	4522.2	103.0	142.0	0	110.0	35.0
7	36856-CJ542 X YAKTANA 54 A(H)	SUDAN	4427.7	94.0	150.0	0	105.0	0.0
50	LOCAL VARIETY		4355.5	107.0	156.0	0	120.0	20.0
28	TIPCALEN	AUSTRALIA	4338.8	111.0	154.0	0	100.0	5.0
19	C-306	INDIA	4333.3	106.0	157.0	0/S.	120.0	40.0
30	CRESPO 63	COLOMBIA	4316.6	105.0	156.0	0	125.0	15.0
15	ZAMBEZI	RHODESIA	4294.4	105.0	154.0	0/S.	100.0	0.0
22	LERMA ROJO 64 X N10B X ANE3	SUDAN	4266.6	109.0	161.0	0/S.	90.0	0.0
25	IASSUL	BRAZIL	4266.6	118.0	157.0	0	150.0	10.0
4	CARAZINHO	BRAZIL	4244.4	111.0	159.0	0	140.0	80.0
46	PALMIRA 1	COLOMBIA	4216.6	106.0	157.0	0	120.0	50.0
8	PENJAMO 62	MEXICO	4172.2	104.0	154.0	0	100.0	5.0
13	SON64 X TZFF-NAINARI 60 (B)	ARGENTINA	4172.2	105.0	157.0	0	100.0	0.0
27	BT 2288	TUNISIA	4166.6	99.0	152.0	0	100.0	5.0
43	MEXICO 120	AUSTRALIA	4095.9	100.0	153.0	0	70.0	0.0

11	[illegible]	[illegible]	[illegible]	99.0	152.0	0	90.0	10.0
49	BUCK MANANTIAL	ARGENTINA	4072.2	129.0	171.0	0	130.0	15.0
9	SCN 64A X TZFF-MAINARI 60 (C)	ARGENTINA	4049.9	99.0	148.0	0	100.0	0.0
14	SIETE CERROS 66	MEXICO	3944.4	110.0	155.0	0/S.	115.0	0.0
20	VICTOR 1	ITALY	3938.8	117.0	159.0	0	100.0	0.0
18	NAPO 63	COLOMBIA	3927.7	100.0	153.0	0/S.	110.0	30.0
23	SARIC 70 =(ELUEBIRD # 3)	MEXICO	3927.7	104.0	151.0	0	80.0	0.0
11	CHENAB 70	PAKISTAN	3855.5	104.0	154.0	/MS.	105.0	0.0
34	CAJEME 71 =(ELUEBIRD # 4)	MEXICO	3833.3	105.0	152.0	0	85.0	0.0
32	CHHOTI LERMA	INDIA	3783.3	106.0	154.0	0	105.0	0.0
42	YECORA 70 =(BLUEBIRD # 2)	MEXICO	3772.2	99.0	147.0	0	80.0	0.0
24	HUELGUEN	CHILE	3766.6	107.0	154.0	0	115.0	10.0
12	PATO ARGENTINO	ARGENTINA	3661.1	105.0	157.0	-1MR	105.0	0.0
35	SELKIRK	CANADA	3655.5	134.0	169.0	0/S.	150.0	0.0
44	ET 2281	TUNISIA	3555.5	94.0	154.0	0/S.	105.0	5.0
5	BONZA 55	COLOMBIA	3549.9	110.0	155.0	0/S.	135.0	70.0
39	HAZERA 2152	ISRAEL	3527.7	97.0	147.0	0/S.	95.0	5.0
29	LUNOI	RHODESIA	3455.5	100.0	148.0	0	95.0	0.0
10	CAECTO	ARGENTINA	3449.9	111.0	155.0	0	125.0	25.0
45	NURI 70 =(BLUEBIRD # 1)	MEXICO	3444.4	100.0	150.0	0	105.0	0.0
38	LERMA ROJO 64A	MEXICO	3433.3	98.0	148.0	0/S.	110.0	25.0
21	CHRIS	USA	3299.9	112.0	156.0	0	125.0	10.0
26	TURPIN 7	S. AFRICA	3155.5	105.0	159.0	/MS.	75.0	0.0
40	TCEARI 66	MEXICO	2916.6	98.0	150.0	0	110.0	10.0
33	SONALIKA	INDIA	2805.5	89.0	141.0	0	95.0	5.0
36	TCE X 8156	MEXICO	2794.4	102.0	153.0	0/S.	95.0	0.0
27	INIA 66	MEXICO	2761.1	93.0	138.0	0	105.0	0.0
		GRAND MEAN	3973.6	104.8	153.3	7.8	107.5	11.6
	STANDARD ERROR OF GRAND MEAN		63.3					
	COEFFICIENT OF VARIATION		19.5%					
	LSD VARIETY MEANS 5 PC		1951.9					

CORRELATIONS

YIELD	KG/HA					
DAYS TO	FLOWER	0.19				
DAYS TO	MATURITY	0.18	0.82**			
LEAF	RUST	-0.08	0.11	0.22		
HEIGHT	CM.	0.10	0.59**	0.41**	0.14	
LODGING		0.14	0.12	0.07	0.02	0.46**

* SIGNIFICANT AT THE 5 LEVEL ** SIGNIFICANT AT THE 1 LEVEL

TABLE 4 AFRICA ET

MELKA WERER RESEARCH STATION.
COOPERATORS GURMU DABI AND BEDADA GIRMA.

LATITUDE 009 16'N DATE PLANTED
LONGITUDE 040 09'E DATE HARVESTED
ELEVATION 00750 M.ABOVE S.L. AMOUNT OF MOISTUR

LOCAL VARIETY NOT IDENTIFIED. TRIAL PERIOD FROSTL
AND WARM DAYS. STEM AND LEAF RUST ATTACKED SOME V

VARIETY NUMBER	VARIETY OR CROSS	ORIGIN	YIELD KG/HA
7	36896-CJ542 X YAKTANA 54 A(H)	SUDAN	6403.7*
14	SIETE CERROS 66	MEXICO	6347.1
2	PITIC 62	MEXICO	6119.3
41	SAFED LERMA	INDIA	6079.3
8	PENJAMO 62	MEXICO	6013.8
15	ZAMBEZI	RHODESIA	5908.2
43	MEXICO 120	AUSTRALIA	5889.3
38	LERMA ROJO 64A	MEXICO	5888.2
42	NECORA 7C =(BLUEBIRD # 2)	MEXICO	5807.1
9	SON 64A X TZPP-NAINARI 60 (C)	ARGENTINA	5727.1
17	SYRIMEX	SYRIA	5711.6
37	ET 2268	TUNISIA	5702.7
11	CHENAB 70	PAKISTAN	5670.5
16	GIZA 155	EGYPT	5667.1
36	TOE X 8156	MEXICO	5621.6
12	PATO ARGENTINO	ARGENTINA	5543.8
32	CHECTI LERMA	INDIA	5538.3
29	LUNCI	RHODESIA	5523.8
27	INIA 66	MEXICO	5516.1
39	HAZERA 2152	ISRAEL	5516.1
47	SONORA 64-KLEIN RENDIDOR	ARGENTINA	5504.9
22	LERMA ROJO 64 X N10B X ANE3	SUDAN	5497.2
33	SONALIKA	INDIA	5483.8
28	TINCALEN	AUSTRALIA	5460.5
45	NURI 7C =(BLUEBIRD # 1)	MEXICO	5455.0
23	SARIC 70 =(BLUEBIRD # 3)	MEXICO	5443.8
31	SCIAH 70	MEXICO	5410.5
24	HUELQUEN	CHILE	5310.5
46	CALPIRA 1	COLOMBIA	5299.4
40	TOBARI 66	MEXICO	5189.4
1	NAINARI 60	MEXICO	5188.3
44	BT 2281	TUNISIA	5179.4
34	CAJEME 71 =(BLUEBIRD # 4)	MEXICO	5138.3
4	CARAZINHO	BRAZIL	5133.9
3	(TZPP-SON 64) (LR64A-TZPP X ANE3)	MEXICO	5132.8
26	TUFFIN 7	S. AFRICA	5125.0
48	UP 301	INDIA	5110.5
30	CRESPO 63	COLOMBIA	4788.4
19	C-306	INDIA	4775.0
18	NAPO 63	COLOMBIA	4699.5
50	LOCAL VARIETY		4527.3
13	SON64 X TZPP-NAINARI 60 (B)	ARGENTINA	4521.7
49	BUCK MANANTIAL	ARGENTINA	4499.5
10	GABOTO	ARGENTINA	4344.0
20	VICTOR 1	ITALY	4344.0
25	IASSUL	BRAZIL	4165.1
5	BONZA 55	COLOMBIA	3977.3
6	FIANCATES	ARGENTINA	3610.7
21	CHRIS	USA	3554.0
35	SELKIRK	CANADA	2757.5

GRAND MEAN	5216.4
STANDARD ERROR OF GRAND MEAN	39.5
COEFFICIENT OF VARIATION	9.21
LSD VARIETY MEANS 5 PC	969.4

	CORR
YIELD KG/HA	
DAYS TO FLOWER	-0.57
DAYS TO MATURITY	-0.30
HEIGHT CM.	-0.47
LODGING	-0.33
SHATTERING	-0.01
1000 GRN WGT GRMS	0.31
TIP BURN	0.00

* SIGNIFICANT AT THE 5 LEVEL ** SI

ITHIOPIA MELKA WERER

11/12/70 NITROGEN 060.0 KG/HA
33/01/71 PHOSPHORUS ---.- KG/HA
E ---- MM POTASSIUM ---.- KG/HA

ESS WITH COOL NIGHTS
ARIETIES AFTER MATURITY

DAYS TO FLOWER	DAYS TO MATURITY	HEIGHT CM.	LODGING	SHATTERING	1000 GRN WGT GRMS	TIP BURN
48.6	99.3	96.6	0.0	0.0	43.5	0-5
51.3	96.6	90.0	0.0	5.0	38.7	10
53.0	98.6	103.3	35.0	5.0	38.8	0-5
56.0	96.6	103.3	0.0	0.0	39.8	5-10
50.6	94.6	95.0	0.0	0.0	40.0	20
49.6	97.3	89.0	0.0	0.0	37.4	0-3
54.0	96.6	68.3	0.0	0.0	37.7	5-10
51.0	94.0	102.3	0.0	0.0	40.0	0-30
49.0	92.6	68.3	0.0	5.0	45.0	5-10
47.0	92.6	91.6	0.0	0.0	33.3	5-10
54.3	96.6	96.6	0.0	1.6	38.2	5-10
43.0	94.6	91.6	0.0	20.0	38.8	0-50
54.3	97.3	96.6	0.0	5.0	43.5	0-5
54.6	99.0	123.3	43.3	0.0	43.7	5-10
46.6	93.3	78.3	0.0	0.0	33.9	0-30
50.3	95.3	89.0	0.0	10.0	30.9	0-40
54.6	94.6	95.6	0.0	0.0	34.0	5
49.6	92.6	80.0	0.0	0.0	36.3	5
48.0	90.6	93.3	0.0	0.0	37.8	5
47.6	93.3	81.6	0.0	10.0	41.3	0-10
48.0	88.0	95.0	0.0	0.0	38.2	10
60.0	102.0	81.6	0.0	0.0	34.9	0-10
44.0	88.0	95.0	0.0	0.0	51.9	5-10
62.3	100.0	103.0	81.6	15.0	36.2	0-2
48.3	93.3	85.0	0.0	0.0	35.7	10
61.6	101.3	68.3	0.0	0.0	41.5	0-10
43.0	86.0	86.6	0.0	0.0	45.5	5
51.3	92.0	111.6	0.0	25.0	38.1	5-15
54.6	93.3	118.3	20.0	10.0	41.7	0-10
49.0	92.0	93.3	0.0	0.0	34.9	0-40
62.6	100.0	115.0	35.0	0.0	42.4	0-5
47.6	95.3	81.6	0.0	0.0	36.6	0-30
63.6	100.6	73.0	0.0	0.0	44.1	0-10
67.0	105.3	125.0	71.6	0.0	40.0	0-5
49.6	91.3	86.6	0.0	0.0	34.2	10
64.0	102.6	61.6	0.0	0.0	35.6	0-30
51.3	94.6	63.3	0.0	10.0	39.9	0-60
53.0	92.0	120.0	14.0	0.0	36.0	5-10
63.6	104.0	125.0	63.3	0.0	46.3	5-10
45.3	85.3	105.0	0.0	0.0	37.2	5
62.0	100.0	116.6	1.6	5.0	42.3	0-2
54.0	96.0	86.6	0.0	0.0	39.4	0-5
75.6	110.6	128.3	5.0	0.0	27.5	C-1
65.3	104.6	116.6	55.0	0.0	33.2	0-5
65.6	99.3	82.3	0.0	25.0	40.3	0-5
63.3	97.3	120.0	58.3	15.0	38.9	0-5
59.0	94.0	128.3	40.0	0.0	36.4	5-30
61.3	97.3	120.0	23.3	0.0	37.8	0-10
54.3	94.6	125.0	51.6	0.0	31.8	0-20
79.0	109.0	120.0	7.3	0.0	30.8	
55.0	96.3	97.3	12.1	3.3	38.4	
0.1	0.1	0.4	1.2	0.1	0.1	
2.2%	1.7%	5.6%	128.4%	56.4%	5.7%	
2.5	3.3	10.9	31.1	3.7	4.4	

ELATIONS

**						
*	0.88**					
**	0.43**	0.25				
*	0.44**	0.36**	0.61**			
	0.03	-0.03	-0.03	0.06		
*	-0.23	-0.22	-0.11	0.00	0.06	
	0.00	0.00	0.00	0.00	0.00	0.00

GNIFICANT AT THE 1 LEVEL

TABLE 5 AFRICA KENYA

PLANT BREEDING STATION.
COOPERATORS V.P. PATEL.

LATITUDE 000 18' S
LONGITUDE 035 56'E
ELEVATION +02164 M.ABOVE S.L.

DATE PLANTED 05/29/71
DATE HARVESTED 10/20/71
AMOUNT OF MOISTURE 0481 MM

NITROGE
PHOSPHO
POTASSI

LOCAL VARIETY TROPHY. WEEDS PULLED OUT TWICE BY HAND.

VARIETY NUMBER	VARIETY OR CROSS	ORIGIN	YIELD KG/HA	TEST WEIGHT	DAYS TO FLOWER	DA MA
31	ECTAN 70	MEXICO	3744.0	73.0	69.0	
36	TOB) E156	MEXICO	3477.4	78.5	70.0	
34	CAJEME 71 =(BLUEBIRD # 4)	MEXICO	3416.3	73.5	85.0	
18	NAFC 63	COLOMBIA	3349.6	74.1	73.0	
14	SIETE CERROS 66	MEXICO	3332.9	76.3	77.6	
27	INIA 66	MEXICO	3283.0	76.9	72.3	
45	NURI 70 =(BLUEBIRD # 1)	MEXICO	3160.7	77.9	72.0	
50	LOCAL VARIETY		3027.4	75.8	77.0	
23	SARIC 70 =(BLUEBIRD # 3)	MEXICO	3005.2	75.5	82.3	
28	TIPCALEN	AUSTRALIA	2960.8	77.1	78.6	
42	YECORA 70 =(BLUEBIRD # 2)	MEXICO	2860.8	72.4	72.6	
40	TOBARI 66	MEXICO	2771.9	76.9	73.3	
48	LP 301	INDIA	2727.5	73.0	74.6	
32	CHHOTI LERMA	INDIA	2716.3	73.8	76.6	
37	ET 2288	TUNISIA	2616.4	74.6	69.6	
38	LERMA ROJO 64A	MEXICO	2477.5	69.4	73.3	
24	FUELGUEN	CHILE	2421.9	71.9	75.0	
29	LUNDI	RHODESIA	2421.9	71.3	70.3	
35	SELKIRK	CANADA	2399.7	73.8	93.5	
21	CHRIS	USA	2371.9	76.0	79.6	
13	SON64 X TZPP-NAINARI 60 (B)	ARGENTINA	2277.5	66.4	73.3	
12	FATC ARGENTINA	ARGENTINA	2249.7	73.5	74.6	
33	SONALIKA	INDIA	2238.6	65.6	70.0	
5	ECNZA 55	COLOMBIA	2199.7	72.7	85.0	
16	GIZA 155	EGYPT	2155.3	76.8	77.0	
41	SAFED LERMA	INDIA	2044.2	71.1	79.0	
17	SYRIMEX	SYRIA	2005.3	69.1	77.3	
44	ET 2281	TUNISIA	1983.1	69.2	73.3	
19	C-306	INDIA	1966.4	79.0	88.0	
30	CRESPO 63	COLOMBIA	1949.8	64.0	77.3	
3	(TZFP-SCA 64) (LR64A-TZPP X ANE3)	MEXICO	1927.5	71.1	74.0	
8	PENJAMO 62	MEXICO	1822.0	65.6	74.6	
22	LERMA ROJO 64 X N10B X ANE3	SUDAN	1816.4	66.4	75.3	
47	SONORA 64-KLEIN REMOLDOR	ARGENTINA	1805.3	65.0	71.3	
9	SON 64A X TZFP-NAINARI 60 (C)	ARGENTINA	1727.6	61.2	71.3	
49	BUCK MANANTIAL	ARGENTINA	1695.8	72.2	91.0	
26	TURPIN 7	S. AFRICA	1644.2	55.5	78.0	
1	NAINARI 60	MEXICO	1488.7	62.5	79.3	
25	IASSUL	BRAZIL	1344.3	64.6	85.6	
15	ZAMBEZI	RHODESIA	1333.1	59.0	75.0	
10	CAECTO	ARGENTINA	1288.7	70.4	87.3	
11	CHENAB 70	PAKISTAN	1194.3	58.4	76.0	
4	CARAZINHO	BRAZIL	1110.9	64.3	92.0	
6	PIAMONTES	ARGENTINA	1022.1	-	87.6	
20	VICTOR 1	ITALY	894.3	-	89.6	
46	PALMIRA 1	COLOMBIA	861.0	-	76.0	
39	MAZERA 2152	ISRAEL	855.4	52.7	77.6	
7	36896-CJ542 X YAKTANA 54 A(H)	SUDAN	633.2	-	75.0	
2	PITIC 62	MEXICO	599.9	-	80.6	
43	MEXICO 120	AUSTRALIA	288.8	-	77.3	
		GRAND MEAN	2099.4	61.7	77.7	
	STANDARD ERROR OF GRAND MEAN		23.6	0.1	0.1	
	COEFFICIENT OF VARIATION		13.7%	2.7%	1.9%	
	LSD VARIETY MEANS 5 PC		578.9	3.3	3.0	

CORRELATIONS

YIELD	KG/HA			
TEST	WEIGHT	0.73**		
DAYS TO	FLOWER	-0.35*	-0.18	
DAYS TO	MATURITY	-0.17	0.01	0.92**
STRIPE	RUST	0.00	0.10	0.19
LEAF	RUST	0.21	0.19	0.01
STEM	RUST	-0.58**	-0.45**	0.05
HEIGHT	CM.	-0.23	0.00	0.62**
LODGING		-0.37**	-0.15	0.37**
1000 GRN	WGT GRMS	0.87**	0.63**	-0.19
SEPTORIA	SPP.	0.20	0.23	-0.38**

* SIGNIFICANT AT THE 5 LEVEL ** SIGNIFICANT AT THE 1 LEVE L

NJORO

021.0 KG/HA
028.0 KG/HA
000.0 KG/HA

S TO ITY	STRIPE RUST	LEAF RUST	STEM RUST	HEIGHT CM.	LODGING	1000 GRN WGT GRMS	SEPTORIA SPP.
7.0	5MS	2MS	50S	74.0	3.6	33.7	40.6
2.3	10MS	20S	10S	69.3	0.0	31.4	29.5
.0	20MS	5MR	60S	76.6	3.6	33.4	36.9
9.0	5MS	40S	MS-S	101.0	3.6	29.5	48.0
3.6	40S	40S	5S	81.6	0.0	32.5	44.3
1.3	5MS	10MR	50S	83.3	19.4	32.7	44.3
0.6	5MS	10MR	30S	80.0	7.3	32.2	36.9
6.0	15MS	15MS	MS-S	108.3	14.7	30.7	51.7
6.6	20MS	5MR	40S	67.3	0.0	35.5	29.5
.0	40S	2MS	30S	87.0	3.6	31.7	33.2
0.3	40S	2MR	40S	59.6	7.3	32.3	40.6
2.0	0	5MR	50S	85.3	7.3	29.8	25.8
2.0	15MS	5MR	50S	55.6	0.0	36.9	29.5
2.6	10MS	10MR	30S	84.3	14.7	26.7	36.9
9.3	15MS	10MS	60S	85.0	19.4	25.5	40.6
1.0	40S	2MS	50S	96.3	33.2	26.2	44.3
2.3	5MS	10MR	MS-S	101.0	7.3	23.5	59.1
1.6	2MS	10MS	15S	71.0	0.0	32.6	51.7
3.6	60S	20S	MS-S	133.0	19.4	31.1	48.0
.6	20S	2MS	50S	127.0	19.4	24.2	36.9
0.6	15MS	5MS	50S	78.6	0.0	25.8	48.0
2.0	10MS	5MR	70S	78.3	14.7	24.2	25.8
9.6	TMS	5MR	40S	87.3	7.3	29.7	55.5
9.3	5MS	5MR	40S	125.0	19.4	26.9	51.7
1.6	50S	20S	MS-S	102.6	11.0	32.9	51.7
3.0	TMS	10MR	MS-S	94.3	25.8	26.9	44.3
4.6	5MS	20S	40MS	91.0	11.0	23.7	40.6
1.0	2MS	10MS	50S	77.6	0.0	23.7	40.6
1.6	TMS	40S	MS-S	120.0	29.5	31.1	25.8
3.6	2MS	10MR	90S	115.0	11.0	20.3	36.9
2.6	TMS	10MR	90S	80.6	7.3	23.1	18.4
1.3	20MS	TMS	40S	84.3	11.0	23.3	40.6
3.3	TMS	10MR	90S	77.3	0.0	19.5	33.2
3.6	50MS	10MS	70S	82.6	11.0	23.5	44.3
0.6	30S	5MR	80S	82.6	7.3	17.8	44.3
2.3	60S	TMR	MS-S	116.6	11.0	23.5	22.1
4.0	10MS	10MR	80S	58.3	3.6	20.1	40.6
3.3	30S	10MS	60S	104.6	11.0	23.0	48.0
7.3	0	TMR	50S	137.3	22.1	19.9	25.8
1.0	60S	10MR	30S	79.3	14.7	19.5	51.7
9.3	10MS	2MR	MS-S	131.6	25.8	19.5	25.8
1.6	TMS	2MS	90S	85.0	11.0	17.9	51.7
1.3	20S	20MR	50S	130.3	25.8	19.5	25.8
8.6	TMS	5MR	50S	123.3	22.1	24.6	29.5
9.6	0	30S	60S	75.3	0.0	14.6	18.4
2.3	40S	20MR	100S	107.6	11.0	17.8	33.2
1.6	TMS	10MR	70S	80.0	7.3	16.3	48.0
0.6	10MS	10MR	50S	92.6	14.7	19.4	40.6
2.3	5MS	10MR	MS-S	94.6	19.4	14.7	36.9
0.6	5MS	10MR	90S	60.6	25.8	12.2	22.1
3.7	13.1	10.6	52.2	91.6	11.4	25.3	38.7
0.1	0.8	0.8	0.7	0.2	0.6	0.1	0.6
1.5%	79.5%	95.0%	18.5%	2.9%	57.9%	8.8%	22.0%
4.2	20.8	20.1	19.3	5.3	15.5	4.4	17.1

0.24						
0.05	0.05					
-0.07	-0.19	-0.41**				
0.64**	0.23	0.09	-0.00			
0.31*	0.03	-0.19	0.11	0.60**		
-0.00	0.05	0.14	-0.67	-0.15	-0.27*	
-0.34*	0.16	0.19	-0.38	-0.02	-0.11	0.18

TABLE 6 AFRICA LIBYA TRIPOLI

SIDI MISRY
COOPERATORS ABD-EL MOTTY ARAFA.

LATITUDE	032 00°N	DATE PLANTED	11/07/70	NITROGEN	114.0 KG/HA
LONGITUDE	013 00°E	DATE HARVESTED	06/05/71	PHOSPHORUS	141.0 KG/HA
ELEVATION	+00010 M. ABOVE S.L.	AMOUNT OF MOISTURE	1850 MM	POTASSIUM	000.0 KG/HA

LOCAL VARIETY FLORANCE AURORA. NO DISEASES WERE NOTICED. WEEDS WERE MECHANICALLY CONTROLLED.

VARIETY NUMBER	VARIETY OR CROSS	ORIGIN	YIELD KG/HA	TEST WEIGHT	DAYS TO FLOWER	HEIGHT CM.	1000 GRN WGT GRMS
20	VICTOR 1	ITALY	2044.2	76.0	124.0	90.0	43.0
26	TURPIN 7	S. AFRICA	2010.9	75.0	121.0	80.0	47.0
39	HAZERA 2152	ISRAEL	1899.8	74.0	99.0	95.0	49.0
14	SIETE CERROS 66	MEXICO	1899.8	78.5	102.0	80.0	42.0
7	36896-CJ542 X YAKTANA 54 A(H)	SUDAN	1844.2	76.0	97.0	100.0	45.0
33	SONALIKA	INDIA	1844.2	77.5	84.0	100.0	56.0
48	UP 301	INDIA	1844.2	76.5	106.0	70.0	46.0
47	SONORA 64-KLEIN RENDIDOR	ARGENTINA	1777.5	78.0	100.0	85.0	46.0
27	INIA 66	MEXICO	1777.5	76.5	91.0	100.0	42.0
43	MEXICO 120	AUSTRALIA	1755.3	77.0	104.0	90.0	48.0
45	NURI 70 =(BLUEBIRD # 1)	MEXICO	1710.9	78.0	103.0	95.0	45.0
17	SYRIMEX	SYRIA	1688.7	75.5	106.0	80.0	46.0
42	YECORA 70 =(BLUEBIRD # 2)	MEXICO	1644.2	77.0	102.0	80.0	43.0
32	CHETI LERMA	INDIA	1599.8	79.0	104.0	90.0	42.0
11	CHENAB 70	PAKISTAN	1588.7	77.0	103.0	100.0	45.0
23	SARIC 70 =(BLUEBIRD # 3)	MEXICO	1588.7	76.0	106.0	80.0	45.0
24	HUELQUEN	CHILE	1533.1	76.0	102.0	90.0	40.0
22	LERMA ROJO 64 X N10B X ANE3	SUDAN	1533.1	75.5	123.0	90.0	38.0
44	ET 2281	TUNISIA	1510.9	78.0	94.0	90.0	42.0
34	CAJEME 71 =(BLUEBIRD # 4)	MEXICO	1488.7	75.5	106.0	80.0	47.0
29	LUNCI	RHODESIA	1477.6	74.5	102.0	90.0	47.0
2	PITIC 62	MEXICO	1466.5	73.5	101.0	95.0	44.0
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

31	FOTAP 70	MEXICO	1410.9	73.5	93.0	80.0	38.0
41	SAFEC LERMA	INDIA	1410.9	75.5	104.0	100.0	46.0
38	LERMA FCJO 64A	MEXICO	1333.1	74.5	95.0	105.0	46.0
37	BT 2288	TUNISIA	1333.1	75.5	95.0	90.0	40.0
12	FATC ARGENTINO	ARGENTINA	1277.6	74.5	102.0	90.0	33.0
5	BONZA 55	COLOMBIA	1277.6	76.5	105.0	115.0	45.0
1	NAINARI 60	MEXICO	1199.8	74.5	107.0	115.0	45.0
16	GIZA 155	EGYPT	1199.8	75.0	106.0	110.0	50.0
3	(TZPP-SON 64) (LR64A-TZPP X ANE3)	MEXICO	1188.7	76.5	97.0	90.0	43.0
30	CRESPO 63	COLOMBIA	1177.6	74.5	105.0	110.0	38.0
36	TOB X 8156	MEXICO	1166.5	77.5	102.0	75.0	41.0
13	SON64 X TZFF-NAINARI 60 (B)	ARGENTINA	1133.2	74.5	107.0	80.0	49.0
40	TOBARI 66	MEXICO	1110.9	79.5	100.0	90.0	46.0
46	PALMIRA 1	COLOMBIA	1099.8	73.5	105.0	120.0	42.0
4	CARAZINHO	BRAZIL	1033.2	78.5	116.0	100.0	47.0
25	IAS5U	BRAZIL	988.7	73.0	121.0	125.0	40.0
6	PIAMONTES	ARGENTINA	966.5	80.0	121.0	115.0	44.0
15	ZAMBEZI	RHODESIA	922.1	80.5	102.0	90.0	47.0
8	PENJAMO 62	MEXICO	911.0	75.0	105.0	105.0	40.0
21	CHRIS	USA	844.3	77.5	114.0	110.0	34.0
10	GABOTO	ARGENTINA	833.2	75.5	120.0	120.0	33.0
9	SON 64A X TZFF-NAINARI 60 (C)	ARGENTINA	822.1	76.5	102.0	90.0	35.0
50	LOCAL VARIETY		799.9	77.0	0.0	110.0	0.0
49	BUCK MANANTIAL	ARGENTINA	755.4	73.5	121.0	110.0	27.0
19	C-306	INDIA	688.8	78.5	120.0	110.0	46.0
18	NAFC 63	COLOMBIA	544.3	72.0	104.0	100.0	35.0
35	SELKIRK	CANADA	333.2	70.5	124.0	120.0	31.0
		GRAND MEAN	1334.7	75.9	103.5	96.3	41.8
	STANDARD ERROR OF GRAND MEAN		36.5				
	COEFFICIENT OF VARIATION		33.5%				
	LSD VARIETY MEANS 5 PC		895.3				

CORRELATIONS

YIELD	KG/HA				
TEST	WEIGHT	0.21			
DAYS TO	FLOWER	-0.02	-0.13		
HEIGHT	CM.	-0.57**	-0.29*	0.05	
1000 GRN WGT	GRMS	0.49**	0.18	0.51**	-0.28*

* SIGNIFICANT AT THE 5 LEVEL ** SIGNIFICANT AT THE 1 LEVEL

TABLE 7 AFRICA MOROCCO BENI MELLAL

COTONNIERE-BENI MELLAL STATION.
COOPERATORS DR. ARISTEO ACOSTA.

LATITUDE	032 20'N	DATE PLANTED	01/30/71	NITROGEN	170.0 KG/HA
LONGITUDE	006 17'W	DATE HARVESTED	--/--/--	PHOSPHORUS	026.0 KG/HA
ELEVATION	+00500 M.ABOVE S.L.	AMOUNT OF MOISTURE	0899 MM	POTASSIUM	050.0 KG/HA

LOCAL VARIETY NOT IDENTIFIED. SHORT CYCLE DUE TO TEMPERATURES IN LATE MAY AND JUNE. LITTLE LEAF RUST AND STEM RUST. HEAVY INFESTATION OF WEEDS

VARIETY NUMBER	VARIETY OR CROSS	ORIGIN	YIELD KG/HA	DAYS TO FLOWER	HEIGHT CM.
33	SONALIKA	INDIA	3748.8	74.0	100.0
11	CHENAB 70	PAKISTAN	3721.7	78.0	85.0
31	POTAM 70	MEXICO	3709.2	74.0	90.0
47	SONORA 64-KLEIN RENDIDOR	ARGENTINA	3348.5	74.0	90.0
34	CAJEME 71 =(BLUEBIRD # 4)	MEXICO	3281.7	82.0	80.0
2	FITIC 62	MEXICO	3235.9	79.0	100.0
3	(TZPP-SON 64) (LR64A-TZPP X ANE3)	MEXICO	3155.5	79.0	90.0
41	SAFED LERMA	INDIA	3102.4	79.0	100.0
50	LOCAL VARIETY		3076.3	82.0	135.0
1	NAINARI 60	MEXICO	3073.2	78.0	105.0
9	SON 64A X TZPP-NAINARI 60 (C)	ARGENTINA	3046.1	78.0	90.0
27	INIA 66	MEXICO	3027.4	74.0	90.0
7	36896-CJ542 X YAKTANA 54 A(H)	SUDAN	3016.9	77.0	95.0
37	BT 2288	TUNISIA	2989.8	75.0	90.0
23	SAFIC 70 =(BLUEBIRD # 3)	MEXICO	2954.4	80.0	65.0
13	SON64 X TZPP-NAINARI 60 (B)	ARGENTINA	2927.3	77.0	90.0
32	CHHOTI LERMA	INDIA	2866.8	83.0	85.0
14	SIETE CERROS 66	MEXICO	2842.8	81.0	85.0
46	PALMIRA 1	COLOMBIA	2831.4	75.0	125.0
16	GIZA 155	EGYPT	2829.3	78.0	110.0
10	GABOTO	ARGENTINA	2812.6	82.0	120.0

40	TOBARI 66	MEXICO	[illegible]	[illegible]	[illegible]
38	LERMA ROJO 64A	MEXICO	2760.5	77.0	105.0
28	TIMGALEN	AUSTRALIA	2697.9	81.0	90.0
22	LERMA ROJO 64 X NICB X ANE3	SUDAN	2691.7	82.0	75.0
26	TURPIN 7	S. AFRICA	2672.9	82.0	65.0
20	VICTOR 1	ITALY	2660.4	75.0	75.0
36	TOB X 8156	MEXICO	2654.2	80.0	70.0
24	HUELQUEN	CHILE	2639.6	80.0	115.0
30	CRESPO 63	COLOMBIA	2595.8	78.0	115.0
45	NURI 70 =(BLUEBIRD # 1)	MEXICO	2589.5	77.0	85.0
12	FAIC ARGENTINO	ARGENTINA	2543.6	81.0	90.0
29	LUNDI	RHODESIA	2533.2	74.0	80.0
43	MEXICO 120	AUSTRALIA	2495.7	79.0	60.0
17	SYRIMEX	SYRIA	2491.5	80.0	90.0
42	YECORA 70 =(BLUEBIRD # 2)	MEXICO	2412.3	71.0	75.0
39	HAZERA 2152	ISRAEL	2404.0	77.0	85.0
8	PENJAMO 62	MEXICO	2395.6	79.0	90.0
48	UP 301	INDIA	2351.8	78.0	60.0
49	BUCK MANANTIAL	ARGENTINA	2328.9	0.0	130.0
21	CHRIS	USA	2274.7	83.0	135.0
44	BT 2281	TUNISIA	2264.3	76.0	90.0
25	IASSUL	BRAZIL	2168.3	84.0	125.0
18	NAFC 63	COLOMBIA	2141.2	75.0	105.0
5	BONZA 55	COLOMBIA	2039.1	84.0	130.0
6	PIAMONTES	ARGENTINA	1843.1	88.0	120.0
4	CARAZINHO	BRAZIL	1721.6	82.0	125.0
35	SELKIRK	CANADA	1392.7	0.0	150.0
15	ZAMBEZI	RHODESIA	1338.5	80.0	85.0
19	C-306	INDIA	919.4	78.0	115.0
		GRAND MEAN	2647.8	75.5	97.1
		STANDARD ERROR OF GRAND MEAN	56.2		
		COEFFICIENT OF VARIATION	21.2%		
		LSD VARIETY MEANS 5 PC	1125.4		

CORRELATIONS

YIELD KG/HA		
DAYS TO FLOWER	0.21	
HEIGHT CM.	-0.32*	-0.39**

* SIGNIFICANT AT THE 5 LEVEL ** SIGNIFICANT AT THE 1 LEVEL

TABLE 8 AFRICA MOROCCO MERCHOUCH

MERCHOUCH.
COOPERATORS DR. ARISTEC ACOSTA

LATITUDE	033 33' N	DATE PLANTED	12/28/70	NITROGEN	150.0 KG/HA
LONGITUDE	006 24' W	DATE HARVESTED	06/06/71	PHOSPHORUS	026.0 KG/HA
ELEVATION	+00395 M.ABOVE S.L.	AMOUNT OF MOISTURE	0700 MM	POTASSIUM	050.0 KG/HA

LOCAL VARIETY NOT IDENTIFIED. LESS SUNSHINE THAN AVERAGE. EXCESS OF WATER. HEAVY INFESTATION OF WILD OATS AND WEEDS WHICH AFFECTED YIELD.

VARIETY NUMBER	VARIETY OR CROSS	ORIGIN	YIELD KG/HA	DAYS TO FLOWER	DAYS TO MATURITY	HEIGHT CM.	SEPTORIA TRITICI
10	GAEOTO	ARGENTINA	4844.1	100.0	158.0	105.0	22.1
12	PATO ARGENTINO	ARGENTINA	3987.9	100.0	159.0	85.0	33.2
34	CAJEME 71 =(BLUEBIRD # 4)	MEXICO	3747.4	95.0	157.0	75.0	77.6
22	LERMA ROJO 64 X NIOB X ANE3	SUDAN	3455.5	100.0	160.0	85.0	22.1
13	SON64 X TZPP-NAINARI 60 (B)	ARGENTINA	3392.9	98.0	158.0	90.0	55.5
31	FCTAP 70	MEXICO	3359.6	86.0	156.0	80.0	55.5
20	VICTOR 1	ITALY	3138.6	105.0	157.0	75.0	33.2
7	36896-CJ542 X YAKTANA 54 A(H)	SUDAN	3069.1	85.0	156.0	85.0	66.5
4	CARAZINHO	BRAZIL	3052.4	104.0	158.0	95.0	33.2
47	SONORA 64-KLEIN RENDIDOR	ARGENTINA	3012.1	98.0	158.0	80.0	55.5
25	IASSUL	BRAZIL	2987.1	102.0	157.0	115.0	11.0
17	SYRIMEX	SYRIA	2960.6	98.0	158.0	90.0	44.3
3	(TZFF-SON 64) (LR64A-TZPP X ANE3)	MEXICO	2811.9	100.0	157.0	80.0	22.1
42	YECORA 70 =(BLUEBIRD # 2)	MEXICO	2810.5	87.3	156.0	70.0	77.6
49	EUCH MANANTIAL	ARGENTINA	2805.0	98.0	154.0	115.0	22.1
38	LERMA ROJO 64A	MEXICO	2778.6	85.6	158.0	80.0	66.5
1	NAINARI 60	MEXICO	2746.6	100.0	157.0	95.0	55.5
9	SON 64A X TZPP-NAINARI 60 (C)	ARGENTINA	2739.6	84.3	156.0	80.0	55.5
40	TOBARI 66	MEXICO	2636.8	84.6	157.0	80.0	55.5
14	SIETE CERROS 66	MEXICO	2621.5	102.0	158.0	90.0	66.5
30	CRESPO 63	COLOMBIA	2577.0	87.3	158.0	90.0	22.1
44	BT 2281	TUNISIA	2564.5	86.6	157.0	75.0	55.5

[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
32	CHECTI LERMA	INDIA	2533.9	98.0	157.0	85.0	77.6
41	SAFED LERMA	INDIA	2517.2	87.0	156.0	85.0	66.5
39	YAZERA 2152	ISRAEL	2478.3	84.6	156.0	80.0	66.5
6	FIANCNTES	ARGENTINA	2458.9	100.0	157.0	110.0	44.3
18	NAPO 63	COLOMBIA	2451.9	84.6	157.0	95.0	44.3
50	LOCAL VARIETY		2434.6	105.0	160.0	90.0	22.1
46	PALMIRA 1	COLOMBIA	2396.3	100.0	156.0	95.0	44.3
15	ZAMEEZI	RHODESIA	2296.2	102.0	158.0	80.0	77.6
23	SARIC 70 =(BLUEBIRD # 3)	MEXICO	2253.1	100.0	156.0	65.0	77.6
45	NURI 70 =(BLUEBIRD # 1)	MEXICO	2214.2	94.0	157.0	80.0	66.5
2	PITIC 62	MEXICO	2204.5	88.0	156.0	105.0	55.5
36	TOB X 8156	MEXICO	2178.1	100.0	157.0	60.0	77.6
8	BENJAMC 62	MEXICO	2150.3	100.0	157.0	80.0	55.5
43	MEXICO 120	AUSTRALIA	2139.2	84.3	157.0	60.0	88.7
37	ET 2288	TUNISIA	2129.4	86.3	158.0	70.0	66.5
33	SONALIKA	INDIA	2073.8	82.6	157.0	70.0	77.6
24	HUELQUEN	CHILE	2025.2	98.0	158.0	165.0	33.2
48	LP 301	INDIA	2007.1	100.0	158.0	60.0	77.6
11	CHENAB 70	PAKISTAN	2000.2	88.0	156.0	80.0	77.6
21	CHRIS	USA	1898.7	100.0	157.0	110.0	33.2
28	TINGALEN	AUSTRALIA	1891.7	102.0	158.0	65.0	55.5
27	INIA 66	MEXICO	1850.0	84.0	158.0	75.0	44.3
29	LUNDI	RHODESIA	1769.4	92.0	156.0	60.0	77.6
26	TURPIN 7	S. AFRICA	1570.7	98.0	157.0	95.0	66.5
35	SELKIRK	CANADA	1627.6	120.0	173.0	125.0	44.3
19	C-306	INDIA	1180.1	91.3	156.0	95.0	77.6
16	GIZA 155	EGYPT	1074.4	98.0	157.0	95.0	66.5
		GRAND MEAN	2531.3	94.9	157.4	87.0	54.6
		STANDARD ERROR OF GRAND MEAN	60.2	0.1			
		COEFFICIENT OF VARIATION	29.1%	1.8%			
		LSD VARIETY MEANS 5 PC	1476.8	3.4			

CORRELATIONS

YIELD	KG/HA				
DAYS TO	FLOWER	0.04			
DAYS TO	MATURITY	-0.07	0.55**		
HEIGHT	CM.	0.00	0.33*	0.26	
SEPTORIA	TRITICI	-0.40**	-0.36**	-0.20	-0.55**

* SIGNIFICANT AT THE 5 LEVEL ** SIGNIFICANT AT THE 1 LEVEL

TABLE 9 AFRICA NIGERIA SAMARU - ZARIA

SAMARU-ZARIA.
COOPERATORS L.B. OLUGBEMI.

LATITUDE	011 06'N	DATE PLANTED	11/28/70	NITROGEN	156.0 KG/HA
LONGITUDE	007 39' E	DATE HARVESTED	03/13/71	PHOSPHORUS	020.0 KG/HA
ELEVATION	+00790 M.ABOVE S.L.	AMOUNT OF MOISTURE	---- MM	POTASSIUM	---.- KG/HA

LOCAL VARIETY NOT IDENTIFIED. INSECTS, WEEDS AND PESTS NO PROBLEM.

VARIETY NUMBER	VARIETY OR CROSS	ORIGIN	YIELD KG/HA	DAYS TO FLOWER	DAYS TO MATURITY	HEIGHT CM.	1000 GRN WGT GRMS
50	LOCAL VARIETY		4108.9	66.3	95.6	80.3	36.0
22	LERMA ROJO 64 X N108 X ANE3	SUDAN	3861.9	65.0	94.3	66.6	31.0
26	TURPIN 7	S. AFRICA	3551.9	71.6	96.3	56.6	31.0
47	SONORA 64-KLEIN REMIDOR	ARGENTINA	3457.3	58.0	91.6	74.3	37.0
27	INIA 66	MEXICO	3452.9	58.3	91.0	69.3	41.0
42	YECORA 70 =(BLUEBIRD # 2)	MEXICO	3289.9	60.0	93.0	56.3	35.0
45	NURI 70 =(BLUEBIRD # 1)	MEXICO	3279.9	62.6	94.0	73.0	38.0
15	ZAMBEZI	RHODESIA	3248.6	61.3	93.6	69.0	37.0
38	LERMA ROJO 64A	MEXICO	3236.6	62.6	93.0	78.6	36.0
16	GIZA 155	EGYPT	3234.6	62.0	95.0	84.6	35.6
11	CHENAB 70	PAKISTAN	3141.3	61.3	93.6	75.3	37.0
24	HUELGLEN	CHILE	3126.3	60.0	93.0	73.0	36.0
30	CRESPO 63	COLOMBIA	3083.6	60.6	93.0	76.6	38.0
19	C-306	INDIA	3079.9	69.6	97.0	89.6	35.0
17	SYRIMEX	SYRIA	3048.0	62.6	93.6	72.6	38.0
33	SONALIKA	INDIA	3047.9	57.6	92.3	68.6	49.0
48	LP 301	INDIA	2956.6	64.3	93.6	54.0	40.0
28	TINGALEN	AUSTRALIA	2948.3	67.0	94.3	69.3	31.0
34	CAJEME 71 =(BLUEBIRD # 4)	MEXICO	2932.6	73.0	96.3	61.6	37.0
39	FAZENDA 2152	ISRAEL	2858.3	62.6	93.6	64.6	42.0
43	MEXICO 120	AUSTRALIA	2856.9	63.6	94.3	53.6	33.0
41	SAFED LERMA	INDIA	2847.6	64.0	93.0	77.0	40.0
14	SIETE CERROS 66	MEXICO	2775.9	70.3	93.0	71.3	33.0

[illegible]	[illegible]	INDIA	2753.6	62.0	93.6	67.6	36.0
44	ET 2281	TUNISIA	2745.6	58.3	93.0	67.0	38.0
40	TOBARI 66	MEXICO	2693.3	60.0	93.0	68.0	35.0
46	PALMIRA 1	COLOMBIA	2692.0	67.0	94.3	86.6	39.0
29	LUNDI	RHODESIA	2573.6	60.0	92.3	55.6	35.0
23	SARIC 70 =(BLUEBIRD # 3)	MEXICO	2548.9	72.0	95.0	61.0	32.0
36	TOB X 8156	MEXICO	2505.9	61.3	91.6	61.0	32.0
18	NAPO 63	COLOMBIA	2463.6	53.0	91.6	74.3	37.0
8	PENJAMO 62	MEXICO	2453.3	61.3	92.3	68.0	39.0
20	VICTOR 1	ITALY	2436.3	74.0	96.3	56.3	22.0
2	PITIC 62	MEXICO	2427.6	64.3	95.0	74.3	34.0
9	SON 64A X TZPP-NAINARI 60 (C)	ARGENTINA	2408.6	57.3	91.0	64.3	38.0
25	IASSUL	BRAZIL	2334.3	72.0	94.3	93.3	34.0
21	CHRIS	USA	2317.6	67.0	93.6	89.0	27.0
12	FAIC ARGENTINO	ARGENTINA	2315.6	60.6	93.6	62.3	28.0
31	POTAM 70	MEXICO	2277.6	59.3	91.6	62.0	42.0
5	BONZA 55	COLOMBIA	2269.6	68.3	94.3	78.3	31.0
13	SON64 X TZPP-NAINARI 60 (B)	ARGENTINA	2227.9	63.6	93.6	65.6	37.0
3	(TZPP-SON 64) (LR64A-TZPP X ANE3)	MEXICO	2037.3	61.3	92.3	64.0	32.0
7	26656-CJ542 X YAKTANA 54 A(H)	SUDAN	2000.3	61.3	95.6	75.0	32.0
37	ET 2288	TUNISIA	1928.9	59.6	92.3	69.3	37.0
10	GABOTO	ARGENTINA	1901.6	74.0	96.3	86.0	28.0
6	PIAMONTES	ARGENTINA	1661.0	72.0	95.6	83.6	32.0
1	NAINARI 60	MEXICO	1636.6	69.3	95.0	71.0	41.0
4	CARAZINHO	BRAZIL	1634.3	74.0	97.0	77.0	34.0
35	SELKIRK	CANADA	1294.3	55.0	105.0	71.0	27.0
49	BUCK MANANTIAL	ARGENTINA	1055.3	74.0	104.6	81.6	23.0
		GRAND MEAN	2660.4	64.2	94.2	71.0	35.1
		STANDARD ERROR OF GRAND MEAN	42.9	0.2	0.0	0.5	0.0
		COEFFICIENT OF VARIATION	19.7%	4.2%	1.1%	8.6%	0.4%
		LSD VARIETY MEANS 5 PC	1051.3	5.4	2.1	12.3	0.3

CORRELATIONS

YIELD KG/HA				
DAYS TO FLOWER	-0.21			
DAYS TO MATURITY	-0.44**	0.44**		
HEIGHT CM.	-0.14	0.26	0.23	
1000 GRN WGT GRMS	0.38**	-0.42**	-0.57**	-0.07

* SIGNIFICANT AT THE 5 LEVEL ** SIGNIFICANT AT THE 1 LEVEL

TABLE 10 AFRICA RHODESIA SALISBURY

SALISBURY RESEARCH STATION.
COOPERATORS M. S. ARNOTT

LATITUDE	017 48' S	DATE PLANTED	07/05/71	NITROGEN	094.0 KG/HA
LONGITUDE	031 05'E	DATE HARVESTED	12/01/71	PHOSPHORUS	032.0 KG/HA
ELEVATION	+01495 M.ABOVE S.L.	AMOUNT OF MOISTURE	0736 MM	POTASSIUM	045.0 KG/HA

LOCAL VARIETY NOT IDENTIFIED. DISEASE, INSECTS. WEEDS AND PESTS NO PROBLEM.

VARIETY NUMBER	VARIETY OR CROSS	ORIGIN	YIELD KG/HA	TEST WEIGHT	DAYS TO FLOWER	DAYS TO MATURITY	HEIGHT CM.	LODGING
42	YECORA 70 =(BLUEBIRD # 2)	MEXICO	5592.0	82.3	82.0	135.6	80.4	0.0
43	MEXICO 120	AUSTRALIA	5589.8	80.4	87.0	142.3	71.9	0.0
45	NURI 70 =(BLUEBIRD # 1)	MEXICO	5568.3	83.0	86.3	141.0	104.1	5.0
50	LOCAL VARIETY		5257.9	78.9	83.0	143.0	66.0	0.0
32	CHHOTI LERMA	INDIA	5241.6	82.5	90.6	142.6	105.8	25.0
26	TURPIN 7	S. AFRICA	5217.9	80.0	92.6	145.6	74.5	10.0
48	UP 301	INDIA	5207.6	80.5	87.6	143.3	76.1	0.0
11	CHENAB 70	PAKISTAN	5175.0	83.0	85.6	139.0	108.3	8.3
14	SIETE CERROS 66	MEXICO	5102.4	81.0	88.6	139.6	100.7	18.3
22	LERMA ROJO 64 X N108 X ANE3	SUDAN	5097.2	83.1	91.0	144.6	91.4	33.3
17	SYRIMEX	SYRIA	5023.9	81.4	90.6	143.6	110.9	36.6
34	CAJEME 71 =(BLUEBIRD # 4)	MEXICO	5000.2	81.6	95.0	143.3	86.3	48.3
31	PETAP 70	MEXICO	4957.2	83.9	75.3	133.0	91.4	0.0
44	ET 2281	TUNISIA	4827.6	82.9	80.6	141.3	99.9	0.0
40	TCEARI 66	MEXICO	4745.4	81.9	85.3	141.3	108.3	60.0
39	HAZERA 2152	ISRAEL	4739.5	79.7	84.3	140.3	95.6	8.3
23	SAFIC 70 =(BLUEBIRD # 3)	MEXICO	4714.3	79.3	95.3	144.3	86.3	56.6
47	SONORA 64-KLEIN RENDIDOR	ARGENTINA	4623.9	83.2	81.3	137.0	104.1	8.3
1	NAINARI 60	MEXICO	4561.0	81.0	86.6	131.3	119.3	45.0
36	TOB X 8156	MEXICO	4531.3	83.6	82.0	129.0	79.5	0.0
12	PATO ARGENTINO	ARGENTINA	4473.6	81.8	89.0	144.3	108.3	60.0
15	ZAMBEZI	RHODESIA	4471.4	82.4	82.6	139.3	93.9	31.6
9	SON 64A X TZPP-NAINARI 60 (C)	ARGENTINA	4427.7	80.6	81.6	135.0	106.6	7.3

33	SONALIKA	INDIA	4412.8	82.8	76.8	129.0	103.2	0.0
41	SAFED LERMA	INDIA	4406.2	82.4	88.3	136.6	108.3	96.6
7	36896-CJ542 X YAKTANA 54 A(H)	SUDAN	4394.3	79.5	83.3	144.3	110.0	31.6
20	VICTOR 1	ITALY	4318.0	80.2	104.3	146.6	100.7	28.3
8	PENJAMO 62	MEXICO	4280.3	80.8	81.3	138.0	104.1	76.6
16	GIZA 155	EGYPT	4227.7	82.2	83.6	133.6	121.0	93.3
13	SONE4 X TZPP-NAINARI 60 (B)	ARGENTINA	4205.5	81.5	83.0	138.6	96.5	1.6
29	LUNCI	RHODESIA	4166.2	81.3	77.0	127.6	82.1	0.0
27	INIA 66	MEXICO	4110.6	84.2	77.0	128.6	103.2	3.3
18	NAFC 63	COLOMBIA	4004.0	82.4	76.0	127.0	110.9	38.3
37	BT 2288	TUNISIA	3970.7	81.7	78.6	137.3	105.8	0.6
24	HUELQUEN	CHILE	3598.1	78.9	89.6	141.3	117.6	75.0
38	LERMA ROJO 64A	MEXICO	3545.5	80.7	85.0	137.3	117.6	95.0
2	PITIC 62	MEXICO	3448.5	72.9	90.3	144.3	108.3	95.0
46	PALMIRA 1	COLOMBIA	3127.8	79.0	81.0	128.6	115.1	88.3
3	(TZFF-SCN 64) (LR64A-TZPP X ANE3)	MEXICO	2883.4	79.4	87.0	139.0	100.7	93.3
28	TIMGALEN	AUSTRALIA	2775.2	78.2	88.3	134.6	100.7	68.3
49	BUCK MANANTIAL	ARGENTINA	2757.5	81.2	99.3	146.3	123.6	73.3
30	CRESPO 63	COLOMBIA	2756.0	80.6	82.3	134.6	126.1	93.3
19	C-306	INDIA	2627.1	82.6	87.6	143.0	128.6	96.6
4	CARAZINHO	BRAZIL	2409.3	78.3	95.6	146.3	133.7	100.0
10	CAECTO	ARGENTINA	2206.4	79.5	95.0	143.3	127.8	98.3
5	ECAZA 55	COLOMBIA	2179.0	77.5	91.3	139.6	131.2	100.0
35	SELKIRK	CANADA	2053.8	75.6	103.6	146.0	126.1	81.6
21	CHRIS	USA	1979.8	78.4	88.3	138.6	132.0	100.0
25	IASSUL	BRAZIL	1731.6	75.8	90.3	130.3	133.7	96.6
6	FIANCNTES	ARGENTINA	1628.7	81.1	97.3	144.0	121.9	98.3
		GRAND MEAN	4047.0	80.7	86.9	138.9	105.2	45.7
	STANDARD ERROR OF GRAND MEAN		43.0	0.1	0.1	0.2	0.3	2.0
	COEFFICIENT OF VARIATION		13.0%	1.7%	2.1%	2.5%	4.4%	55.6%
	LSD VARIETY MEANS 5 PC		1055.7	2.7	3.7	6.9	9.4	50.9

CORRELATIONS

YIELD	KG/HA					
TEST	WEIGHT	0.54**				
DAYS TO	FLOWER	-0.34*	-0.46**			
DAYS TO MATURITY		0.02	-0.26	0.73**		
HEIGHT	CM.	-0.76**	-0.29*	0.26	-0.00	
LODGING		-0.78**	-0.52**	0.45**	0.15	0.74**

* SIGNIFICANT AT THE 5 LEVEL ** SIGNIFICANT AT THE 1 LEVEL

TABLE 11 AFRICA SOI

RGODEPLAAT.
COOPERATORS D.J. ROSSOUW, AND STAFF.

LATITUDE 025 35'S DATE PLANTED
LONGITUDE 023 21'E DATE HARVESTED
ELEVATION +01164 M.ABOVE S.L. AMOUNT OF MOISTURI

LOCAL VARIETY TURPIN NO. 4. LOW INCIDENCE OF WEEDS

VARIETY NUMBER	VARIETY OR CROSS	ORIGIN	YIELD KG/HA
34	CAJEME 71 =(BLUEBIRD # 4)	MEXICO	7488.1
11	CHENAB 70	PAKISTAN	7074.8
42	YECORA 70 =(BLUEBIRD # 2)	MEXICO	6387.1
32	CHHOTI LERMA	INDIA	6338.2
31	ICTAF 70	MEXICO	6126.0
43	MEXICO 120	AUSTRALIA	5914.9
36	TOB X 8156	MEXICO	5911.6
22	LERMA ROJO 64 X N10B X ANE3	SUDAN	5830.5
33	SONALIKA	INDIA	5824.9
8	FENJAMC 62	MEXICO	5804.9
50	LOCAL VARIETY		5772.7
45	NURI 70 =(BLUEBIRD # 1)	MEXICO	5764.9
41	SAFED LERMA	INDIA	5763.8
13	SON64 X TZFF-NAINARI 60 (B)	ARGENTINA	5722.7
29	LUNDI	RHODESIA	5689.4
48	UP 301	INDIA	5617.2
20	VICTOR 1	ITALY	5610.5
23	SARIC 70 =(BLUEBIRD # 3)	MEXICO	5548.3
39	HAZERA 2152	ISRAEL	5502.7
2	PITIC 62	MEXICO	5273.9
17	SYRIMEX	SYRIA	5271.6
44	ET 2281	TUNISIA	5138.3
37	ET 2288	TUNISIA	5120.5
47	SONORA 64-KLEIN RENDIDOR	ARGENTINA	5120.5
15	ZAMBEZI	RHODESIA	5082.8
9	SON 64A X TZFF-NAINARI 60 (C)	ARGENTINA	5051.7
7	36656-CJ542 X YAKTANA 54 A(H)	SUDAN	5029.4
3	(TZFF-SON 64) (LR64A-TZPP X ANE3)	MEXICO	5010.5
12	PATO ARGENTINO	ARGENTINA	4969.4
40	TOBARI 66	MEXICO	4877.2
18	NAPO 63	COLOMBIA	4718.4
38	LERMA ROJO 64A	MEXICO	4707.3
27	INIA 66	MEXICO	4640.6
19	C-306	INDIA	4552.8
26	TUFFIN 7	S. AFRICA	4547.3
1	NAINARI 60	MEXICO	4451.7
14	SIETE CERROS 66	MEXICO	4443.9
5	ECANA 55	COLOMBIA	4341.7
28	TIPGALEN	AUSTRALIA	4340.6
30	CRESPO 63	COLOMBIA	4284.0
49	BUCK NAMANTIAL	ARGENTINA	4232.9
16	GIZA 155	EGYPT	4192.9
4	CARAZINHO	BRAZIL	4112.9
46	PALMIRA 1	COLOMBIA	4080.7
24	HUELQUEN	CHILE	3875.1
10	GABOTO	ARGENTINA	3758.5
21	CHRIS	USA	3732.9
6	PIAMONTES	ARGENTINA	3561.8
35	SELKIRK	CANADA	3248.5
25	IASSUL	BRAZIL	3050.8
		GRAND MEAN	5050.3
	STANDARD ERROR OF GRAND MEAN		63.0
	COEFFICIENT OF VARIATION		15.2%
	LSC VARIETY MEANS 5 PC		1544.3

	CORRE
YIELD KG/HA	
TEST WEIGHT	-0.06
DAYS TO FLOWER	-0.43*
DAYS TO MATURITY	-0.31*
HEIGHT CM.	-0.62*
LODGING	-0.61*
SHATTERING	0.00
1000 GRN WGT GRMS	0.18

* SIGNIFICANT AT THE 5 LEVEL ** SI

H AFRICA ROODEPLAAT

05/27/71 NITROGEN 140.0 KG/HA
11/13/71 PHOSPHORUS 023.0 KG/HA
0780 44 POTASSIUM 030.0 KG/HA

AND PESTS.

TEST WEIGHT	DAYS TO FLOWER	DAYS TO MATURITY	HEIGHT CM.	LODGING	SHATTERING	1000 GRN WGT GRMS
74.3	123.6	158.3	78.3	20.0	5	43.0
78.6	119.3	160.0	95.0	30.0	5	39.3
74.0	118.3	158.3	70.0	23.3	5	39.0
77.6	124.6	161.6	93.3	20.0	0	35.3
75.3	115.0	156.6	83.3	50.0	0	37.3
71.6	115.6	160.0	66.6	0.0	5	41.3
74.0	123.3	161.6	85.0	10.0	0	35.6
75.3	123.3	166.6	85.0	53.3	0	31.6
77.6	114.0	158.3	80.0	43.3	0	45.3
77.0	122.0	160.0	88.3	46.6	0	38.6
76.3	123.6	166.6	83.3	36.6	0	33.0
80.3	122.3	160.0	90.0	30.0	0	37.6
78.0	120.6	160.0	95.0	80.0	0	43.6
75.0	119.6	160.0	83.3	6.6	0	38.6
74.0	118.3	158.3	83.3	13.3	0	37.6
72.0	125.0	161.6	65.0	0.0	0	43.3
70.0	134.3	165.0	80.0	10.0	10	33.6
74.0	123.3	160.0	75.0	5.0	0	44.6
74.3	115.0	156.6	83.3	30.0	0	35.3
71.0	122.0	160.0	100.0	66.6	0	39.0
79.3	122.3	163.3	93.3	45.0	5	37.3
76.3	119.3	161.6	85.0	16.6	0	35.6
78.6	119.6	160.0	88.3	33.3	0	34.3
75.3	117.3	158.3	95.0	53.3	0	36.3
74.0	125.6	166.6	91.6	46.6	0	30.6
77.3	119.6	156.6	98.3	60.0	0	32.0
76.6	119.0	163.3	93.3	70.0	0	42.3
76.6	119.3	160.0	88.3	73.3	0	31.0
75.0	127.3	163.3	91.6	40.0	0	32.3
79.3	120.0	161.6	78.3	38.3	0	36.3
76.3	118.3	153.3	106.6	76.6	0	44.0
77.6	119.3	156.6	96.6	80.0	0	37.6
78.3	114.0	155.0	88.3	26.6	0	38.6
78.3	120.6	160.0	96.6	86.6	0	41.3
65.0	121.3	160.0	65.6	0.0	0	35.3
73.0	119.3	160.0	93.3	43.3	0	39.6
77.6	126.6	165.0	88.3	23.3	5	37.6
75.0	125.6	163.0	110.0	83.3	0	36.6
74.3	120.6	161.6	90.0	71.6	5	35.6
76.0	119.3	160.0	101.6	76.6	0	32.6
73.5	134.6	168.3	108.3	76.6	0	29.3
78.6	122.0	165.0	93.3	66.6	0	43.6
78.3	129.0	165.0	95.6	66.6	5	39.0
74.0	119.3	156.6	95.0	83.3	0	41.3
79.0	129.3	165.0	108.3	66.6	0	39.3
78.3	129.3	163.3	103.3	80.0	0	32.0
78.0	129.6	166.6	106.6	83.3	0	29.3
79.6	128.6	163.3	105.0	76.6	0	33.6
72.3	137.3	168.3	105.0	66.6	0	39.3
74.0	129.0	161.6	113.3	83.3	5	41.0
75.7	122.4	161.1	90.7	47.3		37.3
0.1	0.1	0.2	0.6	1.3		0.2
2.7%	1.5%	1.7%	8.6%	33.7%		9.2%
4.2	4.1	5.6	15.7	32.0		6.9

ATIONS

-0.11					
0.00	0.77**				
0.39**	0.40**	0.20			
0.36**	0.21	0.11	0.81**		
0.00	0.00	0.00	0.00	0.00	
-0.00	-0.29*	-0.39**	-0.20	-0.11	0.00

EFICANT AT THE 1 LEVEL

TABLE 12 AFRICA SUDAN ED - DAMER

HUDEIBA AGRICULTURAL RESEARCH STATION.
COOPERATORS DR. ABDEL GALIL IBRAHIM IMAN.

LATITUDE	017 35' N	DATE PLANTED	11/09/70	NITROGEN	074.0 KG/HA
LONGITUDE	033 27'E	DATE HARVESTED	03/09/71	PHOSPHORUS	---.- KG/HA
ELEVATION	+00353 M.ABOVE S.L.	AMOUNT OF MOISTURE	---- MM	POTASSIUM	---.- KG/HA

LOCAL VARIETY NOT IDENTIFIED. SLIGHT INFECTION OF APHIDS TREATED BY ROGOR.

VARIETY NUMBER	VARIETY OR CROSS	ORIGIN	YIELD KG/HA	DAYS TO FLOWER	DAYS TO MATURITY	HEIGHT CM.	1000 GRN WGT GRMS
34	CAJEME 71 =(BLUEBIRD # 4)	MEXICO	4344.4	59.3	112.0	72.0	38.5
2	FITIC 62	MEXICO	4038.8	62.3	108.3	76.3	35.3
22	LERMA ROJO 64 X N10B X ANE3	SUDAN	3944.4	51.6	103.6	70.3	36.7
11	CHENAB 70	PAKISTAN	3905.5	58.3	104.0	75.3	40.8
23	SARIC 70 =(BLUEBIRD # 3)	MEXICO	3844.4	67.3	106.6	63.3	39.0
43	MEXICO 120	AUSTRALIA	3772.2	52.0	101.6	54.6	37.5
17	SYRIMEX	SYRIA	3455.5	54.0	104.0	79.0	39.1
28	TINGALEN	AUSTRALIA	3361.1	67.3	108.0	72.6	31.5
13	SONA4 X TZFF-NAINAFI 60 (B)	ARGENTINA	3316.6	57.0	112.3	69.6	35.5
39	HAZERA 2152	ISRAEL	3266.6	48.3	89.0	72.6	40.0
42	YECORA 70 =(BLUEBIRD # 2)	MEXICO	3222.2	47.3	104.6	57.0	40.2
45	NURI 70 =(BLUEBIRD # 1)	MEXICO	3161.1	46.3	93.0	63.6	36.1
7	36896-CJ542 X YAKTANA 54 A(H)	SUDAN	3149.9	44.3	100.3	73.3	42.8
16	GIZA 155	EGYPT	3149.9	58.6	106.6	81.3	39.9
41	SAFED LERMA	INDIA	3038.8	56.6	101.6	77.6	44.5
24	HUELGUEN	CHILE	2983.3	47.0	88.6	76.0	37.3
40	TOBARI 66	MEXICO	2972.2	46.3	94.3	62.0	35.9
29	LUNDI	RHODESIA	2972.2	46.6	89.0	52.3	34.1
26	TURPIN 7	S. AFRICA	2933.3	72.3	117.0	57.0	30.9
8	FENJAMO 62	MEXICO	2911.1	48.0	96.6	61.6	37.8
32	CHHOTI LERMA	INDIA	2888.8	51.3	94.3	67.0	33.6
38	LERMA ROJO 64A	MEXICO	2866.6	47.6	100.3	67.3	39.2
15	ZAMBEZI	RHODESIA	2861.1	45.3	106.0	65.0	36.4
44	ET 2281	TUNISIA	2849.9	46.6	102.0	60.3	36.5

12	FATC ARGENTINC	ARGENTINA	2822.2	46.3	102.0	55.6	30.6
9	SON E4A X TZPP-NAINARI 60 (C)	ARGENTINA	2811.1	45.3	96.3	67.6	31.5
27	INIA 66	MEXICO	2749.9	45.0	93.3	56.6	37.3
19	C-3C6	INDIA	2711.1	67.6	114.0	92.3	35.5
50	LOCAL VARIETY		2711.1	67.3	107.0	71.6	32.8
20	VICTOR 1	ITALY	2711.1	67.0	114.0	74.6	36.7
47	SCNCRA 64-KLEIN RENDIDOR	ARGENTINA	2699.9	45.6	93.0	67.6	39.3
30	CRESPO 63	COLOMBIA	2655.5	47.3	99.6	78.3	37.7
18	NAPO 63	COLOMBIA	2644.4	43.6	91.6	77.6	32.0
1	NAINARI 60	MEXICO	2638.8	67.6	112.6	78.0	40.9
5	BONZA 55	COLOMBIA	2533.3	57.0	103.3	89.6	33.5
6	FIAMCNTES	ARGENTINA	2588.8	57.6	102.0	84.3	40.0
14	SIETE CERROS 66	MEXICO	2566.6	47.0	101.0	60.6	33.9
33	SONALIKA	INDIA	2555.5	41.6	94.6	62.6	43.0
37	ET 2288	TUNISIA	2555.5	47.0	96.0	65.3	33.9
3	(TZPP-SON 64) (LR64A-TZPP X ANE3)	MEXICO	2505.5	47.0	93.3	61.6	35.3
48	UP 301	INDIA	2377.7	49.6	88.6	50.0	41.0
26	TOB X E156	MEXICO	2327.7	45.0	99.0	51.3	33.7
46	PALMIRA 1	COLOMBIA	2227.7	55.6	101.3	82.0	42.5
31	FOTAM 70	MEXICO	2111.1	39.6	101.6	53.0	36.3
10	GAEOTO	ARGENTINA	2044.4	66.0	114.0	97.6	29.2
21	CHRIS	USA	1888.8	49.6	100.0	84.6	30.3
49	BUCK MANANTIAL	ARGENTINA	1822.2	82.3	116.6	93.3	18.8
4	CARAZINHC	BRAZIL	1522.2	69.3	114.0	95.0	37.3
25	IASSUL	BRAZIL	1044.4	71.0	108.0	102.3	32.2
35	SELKIRK	CANADA	722.2	102.6	118.6	91.6	23.1
	GRAND MEAN		2797.1	55.0	102.3	71.4	36.0
	STANDARD ERROR OF GRAND MEAN		53.5	0.4	0.5	0.5	0.1
	COEFFICIENT OF VARIATION		23.4%	8.9%	6.3%	9.2%	5.1%
	LSD VARIETY MEANS 5 PC		1312.8	9.9	13.0	13.1	3.7

CORRELATIONS

YIELD	KG/HA				
DAYS TO	FLOWER	-0.33*			
DAYS TO	MATURITY	-0.14	0.79**		
HEIGHT	CM.	-0.40**	0.61**	0.50**	
1000 GRN	WGT GRMS	0.45**	-0.47**	-0.34*	-0.25

* SIGNIFICANT AT THE 5 LEVEL ** SIGNIFICANT AT THE 1 LEVEL

KHASHM EL GIRBA RESEARCH SUB-STATION.
COOPERATORS DAFALLA AHMED DAFALLA.

LATITUDE 015 08°N DATE PLANTED
LONGITUDE 035 45° E DATE HARVESTED
ELEVATION +00440 M.ABOVE S.L. AMOUNT OF MOISTUR

LOCAL VARIETY NOT IDENTIFIED. SEASON EXCEPTIONALL
LATE RUST INFECTION. FOUR SPRAYINGS TO CONTROL AP

VARIETY NUMBER	VARIETY OR CROSS	ORIGIN	YIELD KG/HA
26	TURPIN 7	S. AFRICA	3715.1
23	SAFIC 70 =(ELUEBIRD # 3)	MEXICO	3711.8
22	LERMA ROJO 64 X N10B X ANE3	SUDAN	3699.6
34	CAJEME 71 =(ELUEBIRD # 4)	MEXICO	3595.1
19	C-306	INDIA	3589.6
2	PITIC 62	MEXICO	3496.3
28	TIPGALEN	AUSTRALIA	3305.2
20	VICTOR 1	ITALY	3250.7
16	GIZA 155	EGYPT	3229.6
1	NAINARI 60	MEXICO	3126.3
17	SYRIMEX	SYRIA	3116.3
13	SON64 > TZPP-NAINARI 60 (B)	ARGENTINA	3005.2
43	MEXICO 120	AUSTRALIA	2940.8
41	SAFED LERMA	INDIA	2854.1
38	LERMA ROJO 64A	MEXICO	2823.0
32	CHRCTI LERMA	INDIA	2790.8
42	YECORA 70 =(BLUEBIRD # 2)	MEXICO	2747.5
7	36896-CJ542 X YAKTANA 54 A(H)	SUDAN	2727.5
11	CHENAB 70	PAKISTAN	2716.3
5	ECAZA 55	COLOMBIA	2706.3
12	FATC ARGENTINO	ARGENTINA	2695.2
8	PENJAMO 62	MEXICO	2681.9
10	GABOTO	ARGENTINA	2553.0
50	LOCAL VARIETY		2545.2
39	HAZERA 2152	ISRAEL	2544.1
30	CRESPO 62	COLOMBIA	2455.3
3	(TZPP-SON 64) (LR64A-TZPP X ANE3)	MEXICO	2454.1
15	ZAMBEZI	RHODESIA	2428.6
29	LUPCI	RHODESIA	2376.4
24	HUELQUEN	CHILE	2371.9
33	SONALIKA	INDIA	2288.6
46	FALPIRA 1	COLOMBIA	2265.7
47	SONORA 64-KLEIN REMOLDOR	ARGENTINA	2261.9
49	BUCK MANANTIAL	ARGENTINA	2258.6
6	PIAPONTES	ARGENTINA	2205.3
45	NUFI 70 =(ELUEBIRD # 1)	MEXICO	2197.5
44	ET 2281	TUNISIA	2157.5
14	SIETE CERROS 66	MEXICO	2155.3
48	UP 301	INDIA	2136.4
21	CHRIS	USA	2126.4
40	TOBARI 66	MEXICO	2110.8
27	INIA 66	MEXICO	2096.4
4	CARAZINHO	BRAZIL	2025.3
9	SON 64A X TZPP-NAINARI 60 (C)	ARGENTINA	1990.9
18	NAPO 63	COLOMBIA	1947.5
37	ET 2288	TUNISIA	1807.5
35	SELKIRK	CANADA	1723.1
36	TOB X 8156	MEXICO	1565.3
31	POTAM 70	MEXICO	1448.7
25	IASSUL	BRAZIL	1227.6

	GRAND MEAN	2555.0
STANDARD ERROR OF GRAND MEAN		30.4
COEFFICIENT OF VARIATION		14.5%
LSD VARIETY MEANS 5 PC		746.3

	CORR
YIELD KG/HA	
DAYS TO FLOWER	0.24
DAYS TO MATURITY	0.32*
STEM RUST	0.16
HEIGHT CM.	-0.07
LODGING	0.07
SHATTERING	-0.35
1000 GRN WGT GRMS	0.29*

* SIGNIFICANT AT THE 5 LEVEL ** SI

KHASHM EL GIRBA

11/10/70 NITROGEN 143.0 KG/HA
03/11/71 PHOSPHORUS ---.- KG/HA
0040 MM POTASSIUM ---.- KG/HA

COOLER AND LONGER.
MS.

DAYS TO FLOWER	DAYS TO MATURITY	STEM RUST	HEIGHT CM.	LODGING	SHATTERING	1000 GRN WGT GRMS
64.0	100.3	5VR	54.0	0.0	0.0	34.2
61.3	97.0	TR	61.3	0.0	4.6	36.2
54.3	92.3	0	64.6	0.0	0.0	35.1
60.0	93.3	0	62.0	0.0	0.0	38.2
62.6	100.6	10VS	80.3	62.6	33.3	38.8
53.0	96.3	0	75.3	0.0	2.3	35.0
60.6	95.0	0	69.0	0.0	2.0	30.9
63.0	93.0	0	59.0	0.0	0.0	33.8
56.3	93.6	0	89.3	0.0	0.0	39.0
62.3	97.0	0	74.3	0.0	0.0	38.1
48.3	86.3	0	68.3	0.0	0.0	36.1
57.0	94.0	0	65.6	0.0	0.0	31.8
44.6	86.3	0	45.3	0.0	5.6	36.4
52.0	85.6	0	73.0	0.0	0.0	40.0
43.6	83.3	0	64.3	0.0	0.0	36.9
51.0	89.0	0	67.6	0.0	0.0	31.6
42.3	83.3	0	53.0	0.0	0.0	35.4
42.3	92.0	0	62.0	0.0	0.0	37.3
55.6	93.0	0	75.6	0.0	17.6	40.1
54.3	92.3	0	95.0	61.6	0.0	33.5
43.0	87.0	0	59.0	0.0	5.0	30.4
45.6	85.3	0	61.6	0.0	5.3	36.2
58.6	96.3	0	84.0	0.0	7.0	30.7
59.6	97.0	0	73.3	0.0	2.0	36.2
41.3	84.6	0	62.3	0.0	5.3	32.4
46.0	85.6	0	80.3	68.3	3.6	35.3
42.6	79.6	0	57.0	0.0	26.0	33.7
41.3	86.6	0	56.6	0.0	1.0	32.8
45.0	85.3	0	53.3	0.0	0.0	28.5
42.0	83.6	0	71.6	0.0	0.0	29.2
49.6	83.0	0	59.6	38.3	0.3	43.9
56.6	90.0	0	79.6	52.6	27.3	38.1
40.3	81.3	0	60.0	0.0	3.3	36.5
83.0	120.3	0	84.3	0.0	0.0	20.9
56.6	87.3	10MS	91.0	0.0	0.3	39.6
42.3	88.3	0	58.3	0.0	0.0	31.7
52.0	84.6	0	53.3	0.0	0.0	35.6
42.6	84.3	0	59.6	0.0	9.3	34.0
44.0	82.3	0	44.0	0.0	0.0	33.1
52.6	92.0	0	84.0	0.0	0.0	29.2
41.3	81.0	0	61.3	0.0	0.0	35.1
40.6	79.6	0	56.0	0.0	0.0	35.1
62.3	97.3	0	86.0	0.0	34.6	36.4
39.6	80.3	0	62.3	0.0	4.6	31.1
39.6	90.3	0	64.0	0.0	5.0	31.2
41.3	80.6	0	63.6	0.0	7.3	31.6
88.0	109.0	0	101.3	0.0	13.3	27.3
40.3	77.6	0	54.3	0.0	0.0	30.9
38.6	83.0	0	53.0	0.0	24.3	36.3
62.3	92.0	0	93.6	0.0	98.3	33.2
51.3	89.5	0.6	67.7	5.6	6.9	34.3
0.3	0.2		0.3	0.9	1.0	0.2
8.0%	4.0%		5.6%	195.5%	187.6%	8.6%
8.2	7.3		7.7	22.1	26.2	5.9

LATIONS

0.89**					
0.17	0.14				
0.63**	0.56**	0.25			
0.07	0.05	0.33*	0.31*		
0.19	0.10	0.14	0.34*	0.13	
-0.15	-0.29*	0.25	-0.06	0.25	0.06

IFICANT AT THE 1 LEVEL

TABLE 14 AFRICA TUNISIA ARIANA

ARIANA
COOPERATORS ACPP. AND INRAT.

LATITUDE 035 65'N
LONGITUDE 010 10'E
ELEVATION +00020 M.ABOVE S.L.

DATE PLANTED 12/02/70
DATE HARVESTED 04/12/71
AMOUNT OF MOISTURE 0473 MM

NITROGEN 120.0 KG/HA
PHOSPHORUS ---.- KG/HA
POTASSIUM ---.- KG/HA

LOCAL VARIETY BT-2123. NO "GENERAL NOTES TO BE TAKEN" WERE REPORTED.

VARIETY NUMBER	VARIETY OR CROSS	ORIGIN	YIELD KG/HA	DAYS TO MATURITY	LEAF RUST	HEIGHT CM.	MILDEW	SEPTORIA TRITICI
31	POTAM 70	MEXICO	5268.0	118.0	TMR	90.0	9.0	30.0
42	YECORA 70 =(BLUEBIRD # 2)	MEXICO	5100.0	119.0	0	75.0	9.0	40.0
34	CAJEME 71 =(BLUEBIRD # 4)	MEXICO	5070.6	120.0	TR	85.0	9.0	24.0
48	UP 301	INDIA	4896.0	126.0	10MS	75.0	7.1	60.0
39	HAZERA 2152	ISRAEL	4861.3	119.0	TMS	90.0	7.1	24.0
7	36896-CJ542 X YAKTANA 54 A(H)	SUDAN	4853.3	114.0	TMR	90.0	7.1	8.0
23	SARIC 70 =(BLUEBIRD # 3)	MEXICO	4838.6	121.0	TMR	80.0	9.0	24.0
37	BT 2288	TUNISIA	4680.0	118.0	TMR	100.0	7.1	8.0
47	SONORA 64-KLEIN RENDIDOR	ARGENTINA	4660.0	124.0	0	95.0	9.0	8.0
44	BT 2281	TUNISIA	4589.3	117.0	30MS	95.0	7.1	16.0
9	SON 64A X T2PP-NAINARI 60 (C)	ARGENTINA	4589.3	115.0	5MR	95.0	7.1	8.0
22	LERMA ROJO 64 X N10B X ANE3	SUDAN	4556.0	130.0	10MS	85.0	9.0	8.0
33	SONALIKA	INDIA	4553.3	113.0	5MS	95.0	3.5	40.0
29	LUNCI	RHODESIA	4469.3	122.0	5MR	85.0	9.0	60.0
27	INIA 66	MEXICO	4434.6	113.0	0	95.0	9.0	8.0
20	VICTOR 1	ITALY	4428.0	132.0	20S	90.0	9.0	16.0
41	SAFEC LERMA	INDIA	4365.3	124.0	0	100.0	7.1	0.0
11	CHENAB 70	PAKISTAN	4338.6	124.0	0	100.0	9.0	70.0
40	TOBARI 66	MEXICO	4333.3	119.0	0	95.0	3.5	0.0
2	FITIC 62	MEXICO	4305.3	118.0	TMR	105.0	7.1	16.0
8	PENJAMO 62	MEXICO	4288.0	123.0	0	100.0	4.0	7.1
1	NAINARI 60	MEXICO	4282.6	117.0	TMR	105.0	3.5	40.0
32	CHHOTI LERMA	INDIA	4264.0	126.0	TMS	100.0	7.1	40.0
		RHODESIA	4238.0	126.0	0	90.0	7.1	50.0

15	ZAMBEZI	RHODESIA	4220.0	126.0	0	90.0	7.1	30.0
43	MEXICO 120	AUSTRALIA	4204.0	121.0	0	75.0	9.0	24.0
12	PATO ARGENTINO	ARGENTINA	4145.3	127.0	TMR	95.0	7.1	24.0
28	TINGALEN	AUSTRALIA	4144.0	128.0	0	95.0	9.0	40.0
14	SIETE CERROS 66	MEXICO	4121.3	130.0	10S	105.0	9.0	70.0
17	SYRIMEX	SYRIA	4100.0	126.0	TMS	105.0	1.5	4.0
24	HUELQUEN	CHILE	4065.3	127.0	TMR	110.0	7.1	0.0
38	LERMA ROJO 64A	MEXICO	4058.6	122.0	0	105.0	7.1	60.0
36	T08 X 8156	MEXICO	4056.0	123.0	5MR	85.0	7.1	8.0
19	C-306	INDIA	4014.6	123.0	0	120.0	9.0	90.0
45	NURI 70 =(BLUEBIRD # 1)	MEXICO	3997.3	123.0	TR	90.0	9.0	16.0
3	(TZPP-SON 64) (LR64A-TZPP X ANE3)	MEXICO	3941.3	113.0	0	100.0	9.0	8.0
50	LOCAL VARIETY		3882.6	129.0	TMR	120.0	3.5	8.0
30	CRESPO 63	COLOMBIA	3877.3	124.0	0	110.0	7.1	2.0
13	SON64 X TZPP-NAINARI 60 (B)	ARGENTINA	3856.0	126.0	TMR	100.0	9.0	4.0
18	NAPC 63	COLOMBIA	3788.0	120.0	0	105.0	7.1	16.0
26	TURPIN 7	S. AFRICA	3760.0	125.0	0	70.0	9.0	80.0
5	BONZA 55	COLOMBIA	3682.6	125.0	TMR	125.0	6.3	0.0
16	GIZA 155	EGYPT	3608.0	127.0	TMS	115.0	9.0	60.0
21	CHRIS	USA	3522.6	130.0	0	120.0	9.0	0.0
10	CAECTC	ARGENTINA	3353.3	131.0	0	125.0	9.0	4.0
25	IASSUL	BRAZIL	3004.0	132.0	0	135.0	7.1	0.0
46	PALMIRA 1	COLOMBIA	2980.0	125.0	10MS	105.0	9.0	60.0
4	CARAZINHO	BRAZIL	2676.0	124.0	0	130.0	9.0	4.0
49	BUCK MANANTIAL	ARGENTINA	2616.0	142.0	0	120.0	7.1	0.0
6	PIAPCNTES	ARGENTINA	2424.0	130.0	5MS	120.0	7.1	0.0
35	SELKIRK	CANADA	2148.0	144.0	0	115.0	1.7	0.0
		GRAND MEAN	4085.5	123.9	1.8	100.2	7.4	23.7
	STANDARD ERROR OF GRAND MEAN		39.6					
	COEFFICIENT OF VARIATION		11.9%					
	LSD VARIETY MEANS 5 PC		972.4					

CORRELATIONS

YIELD	KG/HA					
DAYS TO MATURITY		-0.66**				
LEAF RUST		0.11	0.05			
HEIGHT	CM.	-0.70**	0.42**	-0.16		
MILDEW		0.14	-0.08	0.10	-0.21	
SEPTORIA TRITICI		0.20	-0.10	0.09	-0.30*	0.23*

* SIGNIFICANT AT THE 5 LEVEL ** SIGNIFICANT AT THE 1 LEVEL

TABLE 15 AFRICA TUNISIA BEJA

INRAT
COOPERATORS ACPP. AND INRAT.

LATITUDE 036 40'N DATE PLANTED 12/12/70 NITROGEN 051.0 KG/HA
LONGITUDE 009 10' E DATE HARVESTED 07/04/71 PHOSPHORUS 021.0 KG/HA
ELEVATION +00161 M.ABOVE S.L. AMOUNT OF MOISTURE 0554 MM POTASSIUM ---.- KG/HA

LOCAL VARIETY BT-2123. NO "GENERAL NOTES TO BE TAKEN" WERE NOT REPORTED.

VARIETY NUMBER	VARIETY OR CROSS	ORIGIN	YIELD KG/HA	DAYS TO MATURITY	LEAF RUST	STEM RUST	HEIGHT CM.	MILDEW	SEPTORIA TRITICI
31	POTAM 70	MEXICO	3500.0	125.0	0	10MR	75.0	0.0	8.0
42	YECORA 70 =(BLUEBIRD # 2)	MEXICO	3462.6	124.0	30MR	0	60.0	6.3	8.0
41	SAFED LERMA	INDIA	3350.6	124.0	0	T	90.0	0.0	8.0
47	SONORA 64-KLEIN REMDIDOR	ARGENTINA	3340.0	126.0	0	0	80.0	0.0	8.0
44	ET 2281	TUNISIA	3336.0	124.0	10MR	0	75.0	8.0	7.0
38	LERMA ROJO 64A	MEXICO	3290.6	95.0	0	0	85.0	8.0	8.0
22	LERMA ROJO 64 X A108 X ANE3	SUDAN	3226.6	134.0	0	0	70.0	0.0	7.0
43	MEXICO 120	AUSTRALIA	3221.3	123.0	0	0	55.0	8.0	8.0
8	FENJAMC 62	MEXICO	3204.0	128.0	0	0	75.0	6.3	8.0
7	36656-CJ542 X YAKTANA 54 A(H)	SUDAN	3125.3	123.0	30MR	0	85.0	6.3	6.3
32	CHOTI LERMA	INDIA	3104.0	129.0	0	0	85.0	0.0	8.0
2	FITIC 62	MEXICO	2900.0	132.0	0	T	75.0	6.3	8.0
1	NAINARI 60	MEXICO	2889.3	127.0	0	0	90.0	6.3	8.0
36	TCE X 8156	MEXICO	2845.3	128.0	0	10MR	70.0	0.0	8.0
34	CAJEME 71 =(BLUEBIRD # 4)	MEXICO	2845.3	125.0	10MR	0	60.0	0.0	8.0
15	ZAMBEZI	RHODESIA	2842.6	135.0	0	0	60.0	0.0	8.0
45	NURI 70 =(BLUEBIRD # 1)	MEXICO	2840.0	125.0	0	0	80.0	8.0	8.0
10	CAEETC	ARGENTINA	2826.6	129.0	0	0	95.0	6.3	6.3
48	LP 301	INDIA	2776.0	127.0	0	0	55.0	0.0	8.0
40	TOBARI 66	MEXICO	2766.6	123.0	0	T	50.0	0.0	6.3
9	SCA 64A X TZFF-NAINARI 60 (C)	ARGENTINA	2725.3	123.0	0	T	75.0	0.0	8.0
14	SIETE CERROS 66	MEXICO	2640.0	139.0	0	0	65.0	0.0	9.0
37	ET 2288	TUNISIA	2593.3	124.0	0	0	75.0	0.0	8.0

13	SONEA X TZPP-NAINARI 60 (B)	ARGENTINA	2581.3	129.0	30MR	30MR	75.0	0.0	5.8
17	SYRIMEX	SYRIA	2576.0	135.0	0	30 MR	80.0	6.3	6.3
33	SONALIKA	INDIA	2566.6	121.0	0	0	80.0	6.3	8.0
23	SARIC 70 =(ELUEBIRD # 3)	MEXICO	2544.0	125.0	0	0	55.0	7.1	8.0
49	BUCK MANANTIAL	ARGENTINA	2529.3	142.0	0	T	95.0	8.0	0.0
3	(TZPP-SON 64) (LR64A-TZPP X ANE3)	MEXICO	2458.6	128.0	0	20MR	80.0	8.0	8.0
28	TIPGALEN	AUSTRALIA	2420.0	129.0	0	0	70.0	0.0	8.0
27	INIA 66	MEXICO	2344.0	118.0	0	10MR	80.0	7.1	5.5
39	FAZENDA 2152	ISRAEL	2321.3	122.0	0	10MR	75.0	0.0	8.0
18	NAPO 63	COLOMBIA	2301.3	124.0	0	T	95.0	0.0	6.3
50	LOCAL VARIETY		2297.3	129.0	30MR	10MR	95.0	0.0	4.0
24	KLEIGLEN	CHILE	2293.3	133.0	10MR	30MR	90.0	0.0	8.0
12	PATO ARGENTINO	ARGENTINA	2285.3	127.0	0	30MR	70.0	6.3	5.5
20	VICTOR 1	ITALY	2214.6	136.0	0	0	70.0	6.3	5.5
11	CHENAB 70	PAKISTAN	2180.0	127.0	0	0	70.0	0.0	0.0
21	CHRIS	USA	2114.6	134.0	30MR	0	105.0	0.0	6.3
26	TUFFIN 7	S. AFRICA	2049.3	129.0	0	0	55.0	0.0	0.0
29	LUNDI	RHODESIA	1986.6	128.0	0	0	65.0	0.0	8.0
5	ESPIGA 55	COLOMBIA	1966.6	128.0	0	T	95.0	8.0	8.0
30	CRESPO 63	COLOMBIA	1965.3	129.0	0	0	85.0	5.5	8.0
4	CARAZINHO	BRAZIL	1876.0	134.0	0	0	90.0	5.0	0.0
19	C-306	INDIA	1634.6	128.0	0	0	85.0	0.0	0.0
16	GIZA 155	EGYPT	1572.0	134.0	0	0	75.0	0.0	0.0
46	PALMIRA 1	COLOMBIA	1465.3	128.0	0	0	100.0	0.0	8.0
25	IASSUL	BRAZIL	1180.0	138.0	0	10MR	105.0	0.0	4.7
35	SELKIRK	CANADA	1153.3	142.0	0	0	85.0	0.0	6.0
6	PIAMONTES	ARGENTINA	914.6	135.0	0	0	90.0	8.0	6.3
		GRAND MEAN	2508.8	128.0	2001.4	1.6	78.0	3.0	6.9
	STANDARD ERROR OF GRAND MEAN		48.6						
	COEFFICIENT OF VARIATION		23.7%						
	LSD VARIETY MEANS 5 PC		1191.1						

CORRELATIONS

YIELD KG/HA							
DAYS TO MATURITY	-0.44**						
LEAF RUST	0.07	0.01					
STEM RUST	-0.05	0.08	-0.05				
HEIGHT CM.	-0.36**	0.15	0.18	0.07			
MILDEW	0.14	-0.20	0.13	0.00	0.08		
SEPTORIA TRITICI	0.44**	-0.29*	-0.00	0.02	-0.13	0.08	

* SIGNIFICANT AT THE 5 LEVEL ** SIGNIFICANT AT THE 1 LEVEL

TABLE 16 AFRICA TUNISIA KOUDIAT

KOUDIAT-BOU SALEM.
COOPERATORS ACPP. AND INRAT.

LATITUDE	035 35'N	DATE PLANTED	12/14/70	NITROGEN	102.0 KG/HA
LONGITUDE	009 00'E	DATE HARVESTED	07/01/71	PHOSPHORUS	045.0 KG/HA
ELEVATION	+00134 M.ABOVE S.L.	AMOUNT OF MOISTURE	0585 MM	POTASSIUM	---.- KG/HA

LOCAL VARIETY ARIANA. NO "GENERAL NOTES TO BE TAKEN" WERE REPORTED.

VARIETY NUMBER	VARIETY OR CROSS	ORIGIN	YIELD KG/HA	DAYS TO MATURITY	LEAF RUST	STEM RUST	HEIGHT CM.	SEPTORIA TRITICI
45	NURI 70 =(BLUEBIRD # 1)	MEXICO	3957.3	111.0	0	0	90.0	6.3
47	SONORA 64-KLEIN RENDIDOR	ARGENTINA	3916.2	111.0	0	0	95.0	4.7
34	CAJEME 71 =(BLUEBIRD # 4)	MEXICO	3860.7	122.0	0	T	75.0	8.0
41	SAFED LERMA	INDIA	3820.7	111.0	0	0	100.0	8.0
8	PENJAMO 62	MEXICO	3778.5	115.0	20S	0	100.0	7.0
3	(TZPP-SON 64) (LR64A-TZPP X AVE3)	MEXICO	3730.7	114.0	20S	0	95.0	8.0
44	ET 2281	TUNISIA	3675.1	109.0	0	0	90.0	8.0
31	POTAM 70	MEXICO	3644.0	109.0	0	0	85.0	8.0
7	36896-CJ542 X YAKTANA 54 A(H)	SUDAN	3627.4	114.0	10MS	0	90.0	8.0
9	SON 64A X TZPP-NAINARI 60 (3)	ARGENTINA	3547.4	111.0	0	0	90.0	8.0
40	TOBARI 66	MEXICO	3508.5	111.0	0	0	90.0	8.0
13	SON64 X TZPP-NAINARI 60 (8)	ARGENTINA	3485.2	117.0	20S	0	90.0	8.0
27	INIA 66	MEXICO	3475.2	109.0	0	0	85.0	8.0
38	LERMA ROJO 64A	MEXICO	3447.4	112.0	0	0	105.0	8.0
12	PATO ARGENTINO	ARGENTINA	3414.1	117.0	0	0	95.0	7.0
37	ET 2288	TUNISIA	3408.5	109.0	0	0	95.0	8.0
33	SONALIKA	INDIA	3404.1	108.0	0	0	100.0	8.0
2	FITIC 62	MEXICO	3398.5	117.0	0	0	95.0	8.0
17	SYRINEX	SYRIA	3394.1	117.0	T	0	100.0	7.0
50	LOCAL VARIETY		3354.1	118.0	0	0	110.0	7.0
30	CRESPO 63	COLOMBIA	3340.7	114.0	0	0	110.0	7.0
20	VICTOR 1	ITALY	3304.1	122.0	0	0	85.0	4.7
14	SIETE CERROS 66	MEXICO	3291.8	121.0	10MS	0	100.0	8.0

23	SARIC 70 =(BLUEBIRD # 3)	MEXICO	3166.3	112.0	0	0	75.0	8.0
42	YECORA 70 =(BLUEBIRD # 2)	MEXICO	3103.0	109.0	0	0	65.0	8.0
15	ZAREEZI	RHODESIA	3038.5	118.0	0	0	85.0	8.0
36	108 X 8156	MEXICO	3030.8	112.0	0	0	90.0	8.0
4	CAFAZINHO	BRAZIL	3008.5	119.0	0	0	125.0	4.7
48	LP 301	INDIA	2986.3	111.0	0	0	65.0	8.0
11	CHENAB 70	PAKISTAN	2973.0	112.0	0	0	95.0	8.0
24	HUELGUEN	CHILE	2924.1	121.0	0	0	115.0	7.0
10	GAEOTO	ARGENTINA	2919.7	121.0	0	0	125.0	8.0
32	CHHOTI LERMA	INDIA	2880.8	115.0	0	0	105.0	8.0
46	PALMIRA 1	COLOMBIA	2867.4	119.0	0	0	115.0	8.0
	NAINARI 60	MEXICO	2848.6	115.0	T	0	110.0	8.0
16	GIZA 155	EGYPT	2837.4	117.0	0	0	110.0	8.0
18	NAPO 63	COLOMBIA	2830.8	112.0	0	10MS	105.0	6.0
29	LUNCI	RHODESIA	2814.1	115.0	0	0	85.0	8.0
5	BONZA 55	COLOMBIA	2803.0	116.0	20S	0	115.0	8.0
21	CHRIS	USA	2719.7	119.0	0	0	125.0	5.0
39	HAZERA 2152	ISRAEL	2670.8	114.0	0	0	85.0	8.0
19	C-306	INDIA	2607.5	116.0	0	0	115.0	8.0
6	FIAPCANTES	ARGENTINA	2604.1	121.0	0	0	115.0	7.0
22	LERMA ROJO 64 X N10B X ANE3	SUDAN	2579.7	120.0	0	0	80.0	7.0
43	MEXICO 120	AUSTRALIA	2478.6	109.0	0	0	70.0	6.3
49	BUCK MANANTIAL	ARGENTINA	2380.8	128.0	0	10S	115.0	4.7
26	TUFFIN 7	S. AFRICA	1943.1	115.0	0	0	70.0	8.0
35	SELKIRK	CANADA	1600.9	134.0	0	0	110.0	4.0
25	JASSUL	BRAZIL	1372.0	122.0	T	0	140.0	4.0
		GRAND MEAN	3100.0	115.5	1.9	0.3	97.5	7.2

STANDARD ERROR OF GRAND MEAN 36.0
COEFFICIENT OF VARIATION 14.2%
LSD VARIETY MEANS 5 PC 883.7

CORRELATIONS

YIELD	KG/HA					
DAYS TO	MATURITY	-0.52**				
LEAF	RUST	0.22	0.02			
STEM	RUST	-0.19	0.21	-0.07		
HEIGHT	CM.	-0.31*	0.47**	0.03	0.16	
SEPTORIA	TRITICI	0.39**	-0.52**	0.15	-0.32*	-0.40**

* SIGNIFICANT AT THE 5 LEVEL ** SIGNIFICANT AT THE 1 LEVEL

TABLE 17 ASIA INDIA RAJASTHAN

GOVT. AGRICULTURAL RESEARCH STATION, DURGAPURA, JAIPUR.
COOPERATORS DR. S.M. GANDHI.

LATITUDE	026 51' N	DATE PLANTED	11/30/70	NITROGEN	134.0 KG/HA
LONGITUDE	075 47'E	DATE HARVESTED	04/25/71	PHOSPHORUS	029.0 KG/HA
ELEVATION	+00390 M.ABOVE S.L.	AMOUNT OF MOISTURE	0015 MM	POTASSIUM	028.0 KG/HA

LOCAL VARIETY NOT IDENTIFIED. WEATHER REMAINED NORMAL UP TO FEB. HOT WINDS STARTED IN MARCH. NO DISEASE, INSECT OR PEST PROBLEMS.

VARIETY NUMBER	VARIETY OR CROSS	ORIGIN	YIELD KG/HA	DAYS TO FLOWER	DAYS TO MATURITY	HEIGHT CM.	1000 GRN WGT GRMS
27	INIA 66	MEXICO	4236.6	41.0	93.0	84.0	36.0
1	NAINARI 60	MEXICO	4016.6	56.0	97.3	107.0	32.0
11	CHENAB 70	PAKISTAN	3737.7	51.0	100.0	89.0	37.0
33	SONALIKA	INDIA	3527.7	39.0	93.0	87.0	44.0
36	TOE X 8156	MEXICO	3354.4	47.0	98.6	71.0	26.0
2	PITIC 62	MEXICO	3285.5	56.0	98.0	85.0	24.0
3	(TZPP-SON 64) (LR64A-TZPP X AVE3)	MEXICO	3236.6	45.6	95.0	95.0	31.0
50	LOCAL VARIETY		3185.5	46.3	98.0	66.0	30.0
37	ET 2288	TUNISIA	3174.4	41.0	95.0	82.0	35.0
8	PENJAMO 62	MEXICO	3173.3	46.6	91.3	87.0	35.0
38	LERMA ROJO 64A	MEXICO	3137.7	59.0	107.3	80.0	34.0
15	ZAPEEZI	RHODESIA	3102.2	49.0	95.0	85.0	34.0
31	POTAM 70	MEXICO	3083.3	41.0	93.0	76.0	38.0
47	SONORA 64-KLEIN RENDIDOR	ARGENTINA	3059.9	41.6	96.0	58.0	35.0
30	CRESFO 63	COLOMBIA	3046.6	49.0	95.6	107.0	30.0
18	NAPO 63	COLOMBIA	2998.8	41.0	93.0	94.0	31.0
19	C-306	INDIA	2893.3	57.0	95.0	105.0	38.0
28	TIMGALEN	AUSTRALIA	2781.1	53.3	104.0	87.0	26.0
5	ECUZA 55	COLOMBIA	2774.4	56.0	100.6	119.0	25.0
41	SAFED LERMA	INDIA	2734.4	59.0	98.0	91.0	32.0
9	SCP 64A X TZPP-NAINARI 60 (C)	ARGENTINA	2701.1	46.3	95.6	83.0	30.0
7	36556-CJ542 X YAKTANA 54 A(H)	SUDAN	2694.4	50.3	98.0	96.0	36.0
39	FAZENA 2152	ISRAEL	2683.3	43.0	93.0	75.0	37.0

29	LUNDI	RHODESIA	2678.8	49.0	95.6	75.0	31.0
16	GIZA 155	EGYPT	2564.4	49.0	99.0	112.0	33.0
14	SIETE CERROS 66	MEXICO	2648.8	56.0	100.0	85.0	26.0
24	HUELQUEN	CHILE	2597.7	51.0	95.3	104.0	32.0
40	TOBARI 66	MEXICO	2548.8	42.0	94.3	82.0	32.0
13	SONEA X TZPP-NAINARI 60 (B)	ARGENTINA	2485.5	51.0	96.3	96.0	31.0
17	SYRIMEX	SYRIA	2477.7	59.0	98.0	87.0	27.0
46	PALMIRA 1	COLOMBIA	2390.0	56.0	95.0	104.0	35.0
43	MEXICO 120	AUSTRALIA	2276.6	51.6	93.0	58.0	30.0
4	CARAZINHO	BRAZIL	2274.4	59.0	103.3	106.0	30.0
12	PATO ARGENTINO	ARGENTINA	2243.3	52.3	102.3	84.0	20.0
22	LERMA ROJO 64 X N10B X ANE3	SUDAN	2224.4	59.0	98.0	84.0	25.0
21	CHRIS	USA	2195.5	59.0	100.6	116.0	24.0
44	BT 2281	TUNISIA	2179.9	49.0	95.0	77.0	32.0
42	YECORA 70 =(BLUEBIRD # 2)	MEXICO	2178.8	49.6	93.0	62.0	0.0
26	TURPIN 7	S. AFRICA	2143.3	61.0	104.6	66.0	28.0
10	GABETO	ARGENTINA	2103.3	59.6	97.0	115.0	24.0
32	CHHOTI LERMA	INDIA	2079.9	51.0	96.3	84.0	27.0
45	NURI 70 =(BLUEBIRD # 1)	MEXICO	2008.8	53.6	95.6	84.0	28.0
34	CAJEME 71 =(BLUEBIRD # 4)	MEXICO	1956.6	61.0	101.6	72.0	30.0
6	PIAMONTES	ARGENTINA	1946.6	59.0	108.0	106.0	25.0
48	LP 301	INDIA	1891.1	43.0	96.6	78.0	35.0
20	VICTOR 1	ITALY	1878.8	60.6	106.0	79.0	28.0
23	SARIC 70 =(BLUEBIRD # 3)	MEXICO	1792.2	56.3	93.0	72.0	30.0
25	IASSUL	BRAZIL	1506.6	59.6	93.0	117.0	31.0
49	BUCK MANANTIAL	ARGENTINA	1106.6	59.0	103.3	87.0	16.0
35	SELKIRK	CANADA	755.5	59.6	100.0	97.0	21.0
		GRAND MEAN	2597.0	51.9	97.5	87.9	29.7
		STANDARD ERROR OF GRAND MEAN	44.5	0.2	0.2		
		COEFFICIENT OF VARIATION	21.0%	6.3%	3.5%		
		LSD VARIETY MEANS 5 PC	1091.5	6.5	7.0		

CORRELATIONS

YIELD KG/HA				
DAYS TO FLOWER	-0.52**			
DAYS TO MATURITY	-0.26	0.63**		
HEIGHT CM.	-0.04	0.32*	0.12	
1000 GRN WGT GRMS	0.48**	-0.41**	-0.29*	0.05

* SIGNIFICANT AT THE 5 LEVEL ** SIGNIFICANT AT THE 1 LEVEL

TABLE 18 ASIA INDIA

LUDHIANA DEPT. OF PLANT BREEDING, PUNJAB AGRIC. UNIV.
COOPERATORS DR. S.C. ANAND. SENIOR WHEAT BREEDER.

LATITUDE	030 56' N	DATE PLANTED	11
LONGITUDE	070 52'E	DATE HARVESTED	04
ELEVATION	+00247 M.ABOVE S.L.	AMOUNT OF MOISTURE	0

LOCAL VARIETY KALYANSONA. CLIMATE REMAINED DRY. LITTL
OF THE SEASON WARMER THAN USUAL. SEVERE LEAF RUST. LI
PEST PROBLEMS.

VARIETY NUMBER	VARIETY OR CROSS	ORIGIN	YIELD KG/HA	DA F
11	CHENAB 70	PAKISTAN	3644.4	
39	HAZERA 2152	ISRAEL	3288.8	
50	LOCAL VARIETY		3199.9	
9	SON 64A X TZPP-NAINARI 60 (C)	ARGENTINA	3111.1	
8	PENJAMO 62	MEXICO	3074.0	
47	SONORA 64-KLEIN RENDIDOR	ARGENTINA	3007.4	
27	INIA 66	MEXICO	2999.9	
33	SONALIKA	INDIA	2962.9	
42	VECORA 70 =(BLUEBIRD # 2)	MEXICO	2940.7	
23	SAFIC 70 =(BLUEBIRD # 3)	MEXICO	2925.9	
44	BT 2281	TUNISIA	2903.7	
43	MEXICO 120	AUSTRALIA	2888.8	
14	SIETE CERROS 66	MEXICO	2866.6	
38	LERMA ROJO 64A	MEXICO	2829.6	
3	(TZPP-SON 64) (LR64A-TZPP X ANE3)	MEXICO	2718.5	
19	C-306	INDIA	2703.7	
2	FITIC 62	MEXICO	2655.2	
37	BT 2286	TUNISIA	2644.4	
15	ZAREEZI	RHODESIA	2622.2	
24	HUELQUEN	CHILE	2585.1	
28	TIMGALEN	AUSTRALIA	2570.3	
31	POTAM 70	MEXICO	2548.1	
48	UP 301	INDIA	2518.5	
1	NAINARI 60	MEXICO	2481.4	
10	CAEOTO	ARGENTINA	2474.0	
16	GIZA 155	EGYPT	2444.4	
29	LUNDI	RHODESIA	2407.4	
7	36896-CJ542 X YAKTANA 54 A(H)	SUDAN	2407.4	
45	NURI 70 =(BLUEBIRD # 1)	MEXICO	2407.4	
18	NAFC 63	COLOMBIA	2407.4	
36	TOB X B156	MEXICO	2377.7	
22	LERMA ROJO 64 X N10B X ANE3	SUDAN	2370.3	
13	SON64 X TZPP-NAINARI 60 (B)	ARGENTINA	2370.3	
17	SYRIMEX	SYRIA	2355.5	
46	PALMIRA 1	COLOMBIA	2348.1	
41	SAFED LERMA	INDIA	2333.3	
20	VICTOR 1	ITALY	2303.7	
4	CAFAZINHO	BRAZIL	2296.2	
40	TOBARI 66	MEXICO	2274.0	
34	CAJEME 71 =(BLUEBIRD # 4)	MEXICO	2259.2	
12	FAIC ARGENTINA	ARGENTINA	2222.2	
32	CHHOTI LERMA	INDIA	2162.9	
30	CRESPO 63	COLOMBIA	1999.9	
25	IASSUL	BRAZIL	1977.7	
26	TUFFIN 7	S. AFRICA	1814.8	
5	BONZA 55	COLOMBIA	1814.8	
21	CHRIS	USA	1681.4	
6	PIAMONTES	ARGENTINA	1592.5	
49	BUCK MANANTIAL	ARGENTINA	1444.4	
35	SELBIRD	CANADA	851.8	

GRAND MEAN	2481.9
STANDARD ERROR OF GRAND MEAN	33.0
COEFFICIENT OF VARIATION	16.3%
LSD VARIETY MEANS 5 PC	810.6

CORRELA

YIELD KG/HA	
DAYS TO FLOWER	-0.59**
DAYS TO MATURITY	-0.48**
STRIPE RUST	0.03
LEAF RUST	0.19
STEM RUST	0.08
HEIGHT CM.	-0.41**
LODGING	-0.29*
1000 GRN WGT GRMS	0.42**

* SIGNIFICANT AT THE 5 LEVEL ** SIGNI

LUDHIANA

/20/70 NITROGEN 120.0 KG/HA
/30/71 PHOSPHORUS 026.0 KG/HA
61 MM POTASSIUM ---.- KG/HA

E RAINFALL DURING FEB. TOWARDS THE END
TLE OF OTHER DISEASES. NO INSECT OR

S TO ER	DAYS TO MATURITY	STRIPE RUST	LEAF RUST	STEM RUST	HEIGHT CM.	LODGING	1000 GRN WGT GRMS
97.0	140.5	0	20S	0	111.0	0.0	35.0
00.0	140.0	0	40S	0	101.5	10.0	35.0
13.5	143.0	15S	40S	15S	108.5	16.6	30.0
02.0	140.5	15S	0	0	110.0	13.3	27.0
04.5	138.0	0	0	0	109.5	20.0	27.0
03.0	139.5	0	0	0	111.5	6.6	36.0
97.5	133.5	0	0	0	99.0	20.0	35.0
96.0	138.0	0	0	0	111.5	23.3	40.0
02.5	137.0	0	0	0	82.0	0.0	35.0
04.0	139.5	0	0	0	86.0	0.0	37.0
06.5	141.0	0	40S	5S	106.0	6.6	31.0
04.5	140.5	0	0	0	77.5	0.0	32.0
12.5	142.0	10S	80S	20S	109.0	10.0	31.0
04.5	139.5	0	0	0	119.5	10.0	35.0
06.5	141.5	0	0	0	111.5	26.6	33.0
07.5	141.0	0	60S	5S	126.5	73.3	34.0
10.0	142.5	0	40S	10S	115.0	73.3	25.0
99.0	139.5	0	0	0	104.0	13.3	31.0
06.5	141.0	40S	0	0	102.5	0.0	33.0
08.5	140.5	0	0	0	132.0	40.0	31.0
09.0	140.0	20S	15S	0	107.5	30.0	33.0
96.0	133.5	0	0	0	96.5	0.0	31.0
07.0	138.0	0	0	0	78.5	0.0	35.0
04.5	139.5	25S	0	5S	127.5	30.0	39.0
12.5	140.5	0	0	0	139.5	50.0	28.0
07.0	141.5	60S	5S	0	133.5	26.6	37.0
00.0	135.0	0	5S	0	98.0	0.0	37.0
04.0	143.5	0	0	0	115.0	10.0	33.0
05.5	139.0	0	0	0	105.5	6.6	30.0
99.0	134.5	0	40X	0	131.5	23.3	31.0
04.5	140.5	0	5S	0	100.5	0.0	25.0
13.5	141.0	0	10X	5S	95.0	0.0	25.0
07.0	141.0	0	3	0	104.0	0.0	29.0
10.0	140.0	0	5X	0	112.5	20.0	27.0
06.0	139.5	0	60S	0	137.0	40.0	37.0
05.5	138.0	0	0	0	112.0	20.0	38.0
15.0	144.5	0	40S	20S	93.0	0.0	28.0
12.0	142.5	0	3	0	134.5	63.3	35.0
03.5	139.5	0	0	0	113.0	13.3	28.0
09.5	140.0	0	0	0	84.0	23.3	33.0
10.5	142.0	0	0	0	107.5	23.3	25.0
08.5	140.0	0	0	0	106.5	0.0	27.0
04.0	141.0	0	0	0	132.5	43.3	31.0
13.0	139.0	0	0	0	146.0	46.6	39.0
11.0	140.5	0	0	0	103.0	0.0	33.0
09.0	141.0	15S	40S	0	140.0	66.0	27.0
12.0	141.0	0	0	0	139.0	60.0	25.0
14.5	140.5	0	0	0	129.5	43.3	29.0
21.0	151.5	0	0	0	127.5	43.3	22.0
25.0	153.5	2S	15S	5S	129.0	10.0	24.0
07.3	140.3	3.9	10.7	1.5	112.2	20.9	31.5
0.1	0.1	0.3	0.5	0.1	0.6	1.7	
0.9%	0.8%	82.0%	50.2%	96.7%	5.7%	102.0%	
2.1	2.3	6.4	10.7	3.0	12.9	42.8	

IONS

0.81**						
0.07	0.13					
0.06	0.15	0.07				
0.35**	0.34*	0.05	0.61**			
0.26	0.25	0.19	0.13	-0.06		
0.25	0.18	0.05	0.23	0.01	0.73	
-0.46**	-0.48**	0.18	0.01	-0.13	-0.05	-0.06

ICANT AT THE 1 LEVEL

TABLE 19 ASIA JAPAN HOKKAIDO

HOKKAIDO PREFECTURAL KITAMI AGRICULTURAL EXPERIMENT STATION.
COOPERATORS SACHIO OZEKI, SHIRO OKABE

LATITUDE	043 47'N	DATE PLANTED	05/04/71	NITROGEN	036.0 KG/HA
LONGITUDE	143 42'E	DATE HARVESTED	09/06/71	PHOSPHORUS	026.0 KG/HA
ELEVATION	+00196 M.ABOVE S.L.	AMOUNT OF MOISTURE	0721 MM	POTASSIUM	025.0 KG/HA

LOCAL VARIETY HARUHIKARI. LATE GERMINATION DUE TO LOW TEMPERATURES.
SEVERE ATTACK BY SCAB. GIBBERELLA ZEAE. MODERATE OCCURRENCE OF MILDEW.
SLIGHT DAMAGE BY P. TRITICINA. SEVERE ATTACK BY JAPANESE APHID.

VARIETY NUMBER	VARIETY OR CROSS	ORIGIN	YIELD KG/HA	TEST WEIGHT	DAYS TO FLOWER	DAYS TO MATURITY	HEIGHT CM.	1000 GRN WGT GRMS
50	LOCAL VARIETY		2883.0	70.5	49.0	113.3	107.0	21.6
46	FALPIRA 1	COLOMBIA	2521.9	67.5	70.3	110.3	88.3	36.9
25	IASSUL	BRAZIL	2490.8	66.7	78.6	119.3	110.3	37.3
35	SELKIRK	CANADA	2357.5	67.1	76.0	111.6	104.3	33.7
8	FENJAMC 62	MEXICO	2285.7	67.2	72.3	114.6	79.3	31.2
11	CHENAB 70	PAKISTAN	2250.8	65.2	68.3	112.6	74.6	28.6
10	CAECTC	ARGENTINA	2250.8	71.5	77.0	117.3	103.6	29.1
47	SONORA 64-KLEIN RENDIDOR	ARGENTINA	2122.0	66.2	69.3	112.0	77.3	33.0
21	CHRIS	USA	2090.9	61.5	74.6	120.3	99.3	29.7
31	POTAM 70	MEXICO	2076.4	57.2	67.0	111.6	69.3	30.0
3	(TZPP-SON 64) (LR64A-TZPP X ANE3)	MEXICO	2068.6	70.6	72.3	115.6	76.6	29.6
40	TOBARI 66	MEXICO	2068.6	66.8	73.0	117.0	79.6	25.7
6	PIAMONTES	ARGENTINA	2063.1	70.2	75.6	116.0	101.0	32.3
12	FATC ARGENTINC	ARGENTINA	2063.1	67.8	73.0	118.3	74.6	27.1
30	CRESPO 63	COLOMBIA	2033.1	69.0	72.6	123.6	90.6	32.1
49	BUCK MANANTIAL	ARGENTINA	2008.6	68.5	73.0	123.3	88.0	27.9
9	SON 64A X TZPP-NAINARI 60 (C)	ARGENTINA	1998.6	66.2	71.6	114.0	73.6	24.4
4	CAFAZINHC	BRAZIL	1997.5	67.5	75.3	118.6	104.0	32.8
34	CAJEME 71 =(BLUEBIRD # 4)	MEXICO	1877.5	57.7	73.0	109.6	60.0	27.5
36	TOB X 8156	MEXICO	1864.2	62.2	71.3	113.6	62.3	26.0
27	INIA 66	MEXICO	1856.4	69.1	68.6	112.0	68.3	29.9
2	PITIC 62	MEXICO	1842.0	62.3	76.3	120.3	85.0	28.9
32	CHHOTI LERMA	INDIA	1792.0	65.5	74.3	112.3	75.6	25.5

32	CHECTI LERMA	INDIA	1792.0	64.3	74.3	112.3	79.6	25.5
37	BT 2288	TUNISIA	1764.2	67.0	69.3	111.6	75.3	29.2
20	VICTOR 1	ITALY	1747.6	64.5	78.6	117.0	62.3	30.8
14	SIETE CERROS 66	MEXICO	1729.8	57.0	76.0	113.6	73.0	22.6
24	HUELQUEN	CHILE	1723.1	62.5	75.0	111.6	96.6	27.9
29	LUADI	RHODESIA	1718.7	61.1	72.3	111.0	64.0	29.5
13	SONEA X TZPP-NAINARI 60 (B)	ARGENTINA	1707.6	65.0	70.0	114.3	72.0	33.4
16	GIZA 155	EGYPT	1698.7	63.8	71.3	121.6	87.5	32.0
44	BT 2281	TUNISIA	1695.3	63.0	71.3	117.0	73.0	27.7
38	LERMA ROJO 64A	MEXICO	1688.7	63.0	71.3	111.6	82.3	28.1
33	SONALIKA	INDIA	1658.7	59.3	69.6	112.3	79.6	31.8
1	NAINARI 60	MEXICO	1605.3	57.2	73.0	114.3	83.3	30.6
41	SAFED LERMA	INDIA	1604.2	66.0	72.6	110.3	79.3	29.8
43	MEXICO 120	AUSTRALIA	1598.7	56.5	74.0	109.3	53.0	24.8
22	LERMA ROJO 64 X N10B X ANE3	SUDAN	1577.6	62.7	75.3	120.0	65.3	24.5
28	TINGALEN	AUSTRALIA	1555.3	58.7	74.6	113.6	72.3	27.8
5	BONZA 55	COLOMBIA	1555.3	64.0	75.3	116.6	99.0	28.8
45	NUFI 70 =(BLUEBIRD # 1)	MEXICO	1497.6	61.8	71.3	111.0	73.3	26.0
17	SYRIMEX	SYRIA	1482.0	64.2	73.6	116.6	77.6	28.6
18	NARC 63	COLOMBIA	1477.6	59.5	68.3	112.0	89.6	26.9
26	TURPIN 7	S. AFRICA	1452.0	54.8	72.0	111.0	49.3	27.2
7	36896-CJ542 X YAKTANA 54 A(H)	SUDAN	1289.8	62.1	71.3	116.0	82.0	31.3
15	ZAMBEZI	RHODESIA	1266.5	59.2	74.6	115.3	69.3	20.4
39	NAZERA 2152	ISRAEL	1260.9	57.5	72.0	110.6	70.0	26.6
23	SARIC 70 =(BLUEBIRD # 3)	MEXICO	1219.8	59.1	73.0	110.6	53.6	28.9
48	UP 301	INDIA	1160.9	51.7	61.0	111.0	46.6	24.2
42	YECORA 70 =(BLUEBIRD # 2)	MEXICO	1128.7	52.2	70.3	109.6	53.6	25.9
19	C-306	INDIA	1049.8	62.0	72.0	110.3	95.0	27.9
		GRAND MEAN	1795.8	63.2	72.0	114.3	78.6	28.7
	STANDARD ERROR OF GRAND MEAN		29.7		0.5	0.1	0.2	0.2
	COEFFICIENT OF VARIATION		20.2%		9.2%	1.5%	4.3%	11.3%
	LSD VARIETY MEANS 5 PC		728.3		13.2	3.5	6.8	6.5

CORRELATIONS

YIELD	KG/HA					
TEST	WEIGHT	0.69**				
DAYS TO	FLOWER	-0.15	0.04			
DAYS TO	MATURITY	0.27*	0.43**	0.31*		
HEIGHT	CM.	0.53**	0.63**	0.09	0.42**	
1000 GRN	WGT GRMS	0.34*	0.37**	0.28*	0.18	0.41**

* SIGNIFICANT AT THE 5 LEVEL ** SIGNIFICANT AT THE 1 LEVEL

KWANGJU BRANCH STATION, CROP EXPERIMENT STATION.
COOPERATORS HYUN CK CHOI, CHANG HWAN CHO.

LATITUDE 00°N127 DATE PLANTED
LONGITUDE 00° E+000 DATE HARVESTED
ELEVATION +00040 M.ABOVE S.L. AMOUNT OF MOISTUR

LOCAL VARIETY NOT IDENTIFIED. FAVORABLE CLIMATIC
INSECT OR PEST PROBLEM.

VARIETY NUMBER	VARIETY OR CROSS	ORIGIN	YIELD KG/HA
33	SONALIKA	INDIA	6184.9
50	LOCAL VARIETY		6032.7
14	SIETE CERROS 66	MEXICO	5702.7
26	TUFFIN 7	S. AFRICA	5669.4
17	SYRIMEX	SYRIA	5643.8
1	NAINARI 60	MEXICO	5607.2
2	FITIC 62	MEXICO	5576.1
41	SAFED LERMA	INDIA	5547.2
9	SCN 64A X TZPP-NAINARI 60 (C)	ARGENTINA	5515.0
39	HAZERA 2152	ISRAEL	5473.8
43	MEXICO 120	AUSTRALIA	5425.0
34	CAJEME 71 =(BLUEBIRD # 4)	MEXICO	5388.3
15	ZAPEEZI	RHODESIA	5336.1
7	[illegible]-CJ542 X YAKTANA 54 A(H)	SUDAN	5329.4
11	CHENAB 70	PAKISTAN	5298.3
32	CHHOTI LERMA	INDIA	5292.7
8	PENJAMO 62	MEXICO	5281.6
27	INIA 66	MEXICO	5259.4
36	108 X 8156	MEXICO	5155.0
3	(TZPP-SCN 64) (LR64A-TZPP X ANE3)	MEXICO	5126.1
45	NURI 70 =(BLUEBIRD # 1)	MEXICO	5117.2
22	LERMA ROJO 64 X N108 X ANE3	SUDAN	5100.5
31	SONAR 70	MEXICO	5092.8
40	TOBARI 66	MEXICO	5070.5
29	LUACI	RHODESIA	5055.0
38	LERMA ROJO 64A	MEXICO	5043.9
19	C-306	INDIA	4972.8
16	GIZA 155	EGYPT	4955.0
37	ET 2268	TUNISIA	4943.9
48	LP 301	INDIA	4915.0
4	CARAZINHO	BRAZIL	4865.0
28	TIPGALEA	AUSTRALIA	4836.5
47	SONORA 64-KLEIN REMOIDOR	ARGENTINA	4810.6
20	VICTOR L	ITALY	4807.2
24	HUELQUEN	CHILE	4803.9
44	ET 2281	TUNISIA	4799.5
12	FAIC ARGENTINO	ARGENTINA	4695.0
13	SON64 X TZPP-NAINARI 60 (B)	ARGENTINA	4670.6
42	YECORA 70 =(BLUEBIRD # 2)	MEXICO	4666.1
30	CRESPO 63	COLOMBIA	4632.8
49	BUCK MANANTIAL	ARGENTINA	4621.7
46	PALMIRA 1	COLOMBIA	4588.4
18	NAPO 63	COLOMBIA	4515.0
23	SAFIC 70 =(BLUEBIRD # 3)	MEXICO	4458.4
35	SELKIRK	CANADA	4274.0
10	CAECTO	ARGENTINA	4147.3
6	PIAMONTES	ARGENTINA	3970.7
21	CHRIS	USA	3872.9
25	IASSUL	BRAZIL	3862.9
5	BONZA 55	COLOMBIA	3818.5
		GRAND MEAN	4996.6
	STANDARD ERROR OF GRAND MEAN		22.7
	COEFFICIENT OF VARIATION		5.5%
	LSD VARIETY MEANS 5 PC		556.4

	CORR
YIELD KG/HA	
TEST WEIGHT	0.01
DAYS TO FLOWER	-0.03
DAYS TO MATURITY	0.06
HEIGHT CM.	-0.50
LODGING	-0.23
1000 GRN WGT GRMS	0.50
FROST DAMAGE	0.06

* SIGNIFICANT AT THE 5 LEVEL ** SI

[illegible] KOREA SUWON

[illegible]

10/21/70 NITROGEN 062.0 KG/HA
06/21/71 PHOSPHORUS 012.0 KG/HA
[illegible] MM POTASSIUM 041.0 KG/HA

CONDITIONS. NO DISEASE DEVELOPMENT. NO

TEST WEIGHT	DAYS TO FLOWER	DAYS TO MATURITY	HEIGHT CM.	LODGING	1000 GRN WGT GRMS	FRCST OAMAGE
83.5	189.0	236.3	79.0	8.3	47.6	25.0
76.3	194.3	239.6	83.0	100.0	37.0	0.0
80.6	196.0	237.0	80.6	16.6	38.0	25.0
75.9	191.3	235.0	51.6	0.0	45.0	25.0
81.6	193.0	237.6	80.3	41.6	40.1	16.6
77.6	190.0	235.6	100.0	50.0	40.8	25.0
77.7	193.6	237.6	91.0	83.3	39.4	25.0
78.9	190.6	236.6	87.0	33.3	44.5	16.6
78.8	192.0	235.3	85.3	8.3	33.9	8.3
79.6	190.0	236.0	78.0	0.0	45.7	25.0
79.8	191.3	234.6	55.0	0.0	41.9	16.6
80.1	190.6	235.0	63.6	8.3	48.2	25.0
80.4	192.0	236.3	77.0	0.0	39.9	25.0
78.6	189.6	236.3	89.0	16.6	45.2	33.3
78.3	189.3	236.3	92.6	8.3	41.5	33.3
81.6	192.6	238.3	84.0	0.0	42.1	25.0
79.2	191.0	235.3	83.3	0.0	44.1	25.0
82.4	187.3	233.3	78.0	0.0	43.8	16.6
81.1	193.0	237.6	70.0	0.0	34.0	50.0
81.9	192.3	235.6	74.6	8.3	39.8	25.0
81.2	190.3	235.0	82.6	0.0	37.4	25.0
80.3	193.6	238.0	73.6	0.0	38.9	8.3
73.2	186.3	233.6	78.0	8.3	39.8	25.0
81.7	190.3	236.6	81.6	0.0	38.9	33.3
78.5	191.3	236.0	75.3	0.0	38.6	33.3
81.6	190.6	238.0	88.3	66.6	41.9	16.6
81.7	190.3	237.0	102.3	83.3	42.3	33.3
79.9	190.0	268.0	96.6	25.0	42.0	25.0
79.4	187.0	236.6	80.3	16.6	40.0	25.0
79.6	191.3	234.6	51.0	0.0	41.0	16.6
90.1	194.0	239.0	111.0	41.6	46.2	25.0
81.4	192.3	236.6	82.6	16.6	38.5	25.0
80.6	191.0	236.6	85.6	0.0	41.1	33.3
78.1	197.6	237.6	73.0	0.0	43.2	8.3
79.2	193.6	238.0	98.6	33.3	39.0	33.3
81.6	191.3	240.0	80.6	0.0	38.6	41.6
80.7	194.3	237.6	75.6	0.0	33.7	25.0
80.7	133.0	236.0	80.3	0.0	42.0	25.0
75.6	190.0	233.6	59.0	0.0	43.5	25.0
78.0	191.3	239.3	103.6	66.6	36.7	25.0
81.1	199.3	241.3	103.3	75.0	35.0	16.6
75.6	192.0	236.6	109.6	66.6	40.8	25.0
74.9	188.3	234.3	96.3	0.0	36.1	25.0
79.4	190.0	199.3	59.0	0.0	41.8	8.3
78.4	199.6	238.0	113.0	75.0	35.2	16.6
81.2	193.3	237.3	113.6	41.6	33.4	8.3
81.8	194.6	235.6	104.3	33.3	34.5	25.0
80.5	194.0	237.6	108.6	58.3	32.1	8.3
77.9	199.0	237.0	126.6	91.6	38.7	16.6
76.9	193.6	237.6	107.6	58.3	38.2	25.0
79.4	190.8	236.5	85.7	24.8	40.0	22.9
0.1	1.1	0.8	0.3	1.3	0.1	0.8
1.6%	7.3%	4.6%	9.3%	65.2%	5.3%	47.7%
2.6	28.0	21.9	9.2	32.4	4.2	21.9

[illegible]ATIONS

	-0.04					
	0.07	0.05				
**	-0.03	0.16	0.32*			
	-0.15	0.26	0.20	0.73**		
**	-0.04	-0.21	-0.07	-0.37**	-0.27*	
	0.10	-0.12	0.17	-0.03	-0.27*	0.12

[illegible]IFICANT AT THE 1 LEVEL

TABLE 21 ASIA NEPAL LALITPUR

AGRONOMIC EXPERIMENTAL FARM, KHUMALTAR.
COOPERATORS R.B. SHRESTHA, A.N. BHATTARAI, J.R. JOSHI

LATITUDE	027 40'N	DATE PLANTED	11/16/70	NITROGEN	130.0 KG/HA
LONGITUDE	085 20'E	DATE HARVESTED	05/16/71	PHOSPHORUS	057.0 KG/HA
ELEVATION	+01360 M.ABOVE S.L.	AMOUNT OF MOISTURE	1891 MM	POTASSIUM	025.0 KG/HA

LOCAL VARIETY NOT IDENTIFIED. MAX. TEMP. 27.5C, MIN.-5C. WERE UNUSUALLY HEAVY RAINS FROM THE TIME OF HEADING THROUGH HARVESTING. NO DISEASE DEVELOPMENT. NO SERIOUS PEST DAMAGE.

VARIETY NUMBER	VARIETY OR CROSS	ORIGIN	YIELD KG/HA	TEST WEIGHT	DAYS TO FLOWER	DAYS TO MATURITY	HEIGHT CM.	1000 GRN WGT GRMS
36	TOB) 8156	MEXICO	4666.1	74.7	132.6	173.6	82.6	34.6
41	SAFED LERMA	INDIA	4427.3	73.3	130.3	168.6	95.1	42.8
11	CHENAB 70	PAKISTAN	4395.5	75.1	129.0	173.6	90.0	48.0
14	SIETE CERROS 66	MEXICO	4266.2	75.0	135.3	175.6	73.7	38.8
47	SCACFA 64-KLEIN REDIDOR	ARGENTINA	4216.2	74.8	130.3	171.0	88.9	44.7
27	INIA 66	MEXICO	4210.6	74.9	130.6	173.0	86.9	43.3
2	FITIC 62	MEXICO	4060.7	70.8	133.0	174.0	89.4	40.8
38	LERMA ROJO 64A	MEXICO	4055.1	73.8	131.3	171.3	103.9	38.4
33	SONALIKA	INDIA	4038.4	74.0	130.6	169.3	94.6	52.6
22	LERMA ROJO 64 X N1CB X ANE3	SUDAN	4010.7	73.0	133.6	172.0	76.4	33.6
3	(TZPP-SON 64) (LR64A-TZPP X ANE3)	MEXICO	3977.3	76.8	132.6	175.0	88.7	32.6
12	FATC ARGENTINO	ARGENTINA	3966.2	76.7	130.0	175.6	87.5	30.5
43	MEXICO 120	AUSTRALIA	3955.1	70.0	128.6	173.3	61.1	41.3
17	SYRIMEX	SYRIA	3938.4	74.8	132.0	171.6	91.2	37.7
42	YECORA 70 =(ELLEBIRD # 2)	MEXICO	3894.0	69.3	128.3	174.0	65.6	42.8
8	BENJAMO 62	MEXICO	3866.2	72.6	131.0	170.6	92.8	42.9
44	ET 2281	TUNISIA	3832.9	69.3	129.3	173.3	86.0	34.1
13	SON64 X TZPP-NAINARI 60 (B)	ARGENTINA	3732.9	72.1	131.0	172.6	82.8	38.7
39	HAZERA 2152	ISRAEL	3710.7	71.2	130.6	174.6	83.3	45.2
15	ZAMBEZI	RHODESIA	3682.9	77.6	135.6	178.0	84.6	37.9
18	NAFC 63	COLOMBIA	3649.6	72.7	130.0	172.0	108.9	37.3
9	SON 64A) TZPP-NAINARI 60 (C)	ARGENTINA	3599.6	75.2	135.0	177.3	87.4	33.6
7	36896-C-1562 X YAKIANA 54 A(H)	SUDAN	3577.4	71.4	133.6	181.3	97.5	45.1

7	36898-CJ542 X YAKTANA 54 A(H)	SUDAN	3577.4	71.6	132.6	181.3	97.5	45.1
32	CHHOTI LERMA	INDIA	3571.8	77.4	131.6	168.3	84.1	36.5
19	C-306	INDIA	3544.0	76.1	133.0	177.6	114.0	42.0
4	CAFAZINHO	BRAZIL	3488.5	74.4	131.3	170.0	115.0	42.2
31	POTAM 70	MEXICO	3456.3	71.1	127.6	162.6	78.8	40.0
1	MAINARI 60	MEXICO	3444.0	70.3	128.3	172.0	105.1	41.6
49	BUCK MANANTIAL	ARGENTINA	3438.5	76.1	135.0	177.3	110.4	29.5
45	NURI 70 =(BLUEBIRD # 1)	MEXICO	3394.1	75.4	132.6	176.3	84.4	37.3
37	BT 2288	TUNISIA	3271.8	75.0	133.3	176.0	91.7	36.5
40	TOEARI 66	MEXICO	3194.1	74.0	132.6	178.0	88.3	34.8
10	GABOTO	ARGENTINA	3171.9	76.4	134.0	180.3	113.1	32.3
16	GIZA 155	EGYPT	3127.4	70.6	128.6	168.6	107.7	41.3
26	TUFFIN 7	S. AFRICA	3066.3	68.0	134.0	176.0	63.2	40.3
23	SARIC 70 =(BLUEBIRD # 3)	MEXICO	3060.8	74.2	133.6	169.3	73.5	41.8
46	PALMIRA 1	COLOMBIA	3033.0	68.7	132.6	175.3	111.2	42.1
20	VICTOR 1	ITALY	3005.2	70.6	136.0	178.0	74.4	38.5
28	TIMGALEN	AUSTRALIA	2999.6	71.3	129.3	172.6	89.1	37.3
24	FUELGUEN	CHILE	2949.7	72.9	131.6	172.0	109.7	36.3
30	CRESPO 63	COLOMBIA	2944.1	71.3	130.3	175.6	109.0	35.2
6	FIAPCNTES	ARGENTINA	2905.2	74.7	131.3	170.0	107.9	37.5
34	CAJEME 71 =(BLLEBIRD # 4)	MEXICO	2888.5	73.4	130.6	173.3	72.9	45.1
5	BONZA 55	COLOMBIA	2788.6	70.7	133.0	171.3	115.9	32.3
48	LP 301	INDIA	2649.7	67.9	130.0	173.0	59.8	38.7
25	IASSUL	BRAZIL	2477.5	74.1	135.6	174.6	119.9	43.8
29	LUNDI	RHODESIA	2466.4	67.6	131.0	170.6	80.9	36.5
50	LOCAL VARIETY		2449.7	74.9	129.0	179.0	115.1	18.0
21	CHRIS	USA	2383.0	72.8	130.6	171.3	121.5	27.8
35	SELKIRK	CANADA	2310.8	66.0	130.6	172.3	116.6	36.8
		GRAND MEAN	3464.5	72.9	131.6	173.4	92.7	38.4
	STANDARD ERROR OF GRAND MEAN		26.3	0.1	0.2	0.5	0.3	0.2
	COEFFICIENT OF VARIATION		9.3%	2.5%	2.6%	3.5%	4.7%	7.6%
	LSD VARIETY MEANS 5 PC		646.4	3.7	7.0	12.4	8.8	5.8

CORRELATIONS

YIELD	KG/HA					
TEST	WEIGHT	0.37**				
DAYS TO	FLOWER	-0.05	0.34*			
DAYS TO	MATURITY	-0.07	0.18	0.50**		
HEIGHT	CM.	-0.34*	0.16	0.02	0.05	
1000 GRN WGT	GRMS	0.33*	-0.17	-0.11	-0.28*	-0.25

* SIGNIFICANT AT THE 5 LEVEL ** SIGNIFICANT AT THE 1 LEVEL

TABLE 22 ASIA W. PAKISTAN LYALLPUR.

PUNJAB AGRICULTURAL RESEARCH INSTITUTE.
COOPERATORS CEREAL BOTANIST

LATITUDE	031 30° N	DATE PLANTED	11/24/70	NITROGEN	090.0 KG/HA
LONGITUDE	073 10°E	DATE HARVESTED	--/--/--	PHOSPHORUS	060.0 KG/HA
ELEVATION	+00213 M.ABOVE S.L.	AMOUNT OF MOISTURE	0511 MM	POTASSIUM	000.0 KG/HA

LOCAL VARIETY V-1212(70-71). WEATHER REMAINED DRY. NO RUST. NO INSECT DAMAGE. WEEDS WERE CONTROLLED BY HAND CULTIVATION.

VARIETY NUMBER	VARIETY OR CROSS	ORIGIN	YIELD KG/HA	DAYS TO FLOWER	HEIGHT CM.	LODGING
27	INIA 66	MEXICO	5822.2	60.0	115.0	60.0
50	LOCAL VARIETY		5444.4	65.0	85.0	0.0
11	CHENAB 70	PAKISTAN	5255.5	69.0	114.0	10.0
42	YECORA 70 =(BLUEBIRD # 2)	MEXICO	5244.4	62.6	99.0	30.0
34	CAJEME 71 =(BLUEBIRD # 4)	MEXICO	5199.9	69.0	86.0	0.0
47	SONORA 64-KLEIN RENDIDOR	ARGENTINA	5099.9	64.0	112.0	36.6
33	SONALIKA	INDIA	5022.2	59.0	110.0	5.0
14	SIETE CERROS 66	MEXICO	4955.5	74.0	115.0	50.0
38	LERMA ROJO 64A	MEXICO	4755.5	63.0	123.0	20.0
48	UP 301	INDIA	4711.0	70.0	80.0	0.0
39	HAZERA 2152	ISRAEL	4622.2	62.0	101.0	0.0
32	CHHOTI LERMA	INDIA	4566.6	67.0	101.0	0.0
41	SAFED LERMA	INDIA	4555.5	69.0	117.0	15.0
31	POTAM 70	MEXICO	4544.4	63.0	92.0	0.0
23	SAFIC 70 =(BLUEBIRD # 3)	MEXICO	4488.8	69.0	83.0	0.0
8	PENJAMO 62	MEXICO	4477.7	64.0	119.0	65.0
9	SCA 64A X T2PP-NAINARI 60 (C)	ARGENTINA	4422.2	64.0	107.0	70.0
20	VICTOR 1	ITALY	4377.7	79.0	92.0	0.0
43	MEXICO 120	AUSTRALIA	4377.7	60.0	80.0	0.0
37	BT 2288	TUNISIA	4288.8	61.0	113.0	50.0
17	SYRIMEX	SYRIA	4255.5	69.0	108.0	5.0

3	(TZPP-SCA 64) (LR64A-TZPP X ANE3)					
26	TURPIN 7	S. AFRICA	4122.2	64.0	78.0	0.0
36	TOE X 8156	MEXICO	4088.8	65.0	81.6	0.0
45	NURI 70 =(BLUEBIRD # 1)	MEXICO	4088.8	67.0	107.0	10.0
12	FATC ARGENTINO	ARGENTINA	4022.2	64.0	104.0	0.0
44	BT 2281	TUNISIA	3999.9	67.0	102.0	0.0
29	LUNDI	RHODESIA	3955.5	62.0	95.0	0.0
18	NAFC 63	COLOMBIA	3933.3	64.0	130.0	50.0
24	HUELQUEN	CHILE	3911.1	70.0	142.0	90.0
7	36896-CJ542 X YAKTANA 54 A(H)	SUDAN	3844.4	64.0	114.0	70.0
15	ZAMBEZI	RHODESIA	3799.9	69.0	106.0	0.0
40	TOEARI 66	MEXICO	3799.9	64.0	108.0	30.0
46	PALMIRA 1	COLOMBIA	3799.9	69.0	135.0	70.0
13	SON64 X TZPP-NAINARI 60 (B)	ARGENTINA	3755.5	69.0	105.0	5.0
22	LERMA ROJO 64 X NIC8 X ANE3	SUDAN	3677.7	70.0	92.0	0.0
28	TINGALEN	AUSTRALIA	3666.6	69.0	120.0	80.0
1	NAINARI 60	MEXICO	3622.2	64.0	137.0	90.0
2	FITIC 62	MEXICO	3577.7	69.0	122.0	90.0
10	GABOTO	ARGENTINA	3533.3	74.0	154.3	90.0
30	CRESPO 63	COLOMBIA	3511.1	69.0	127.0	30.0
16	GIZA 155	EGYPT	3377.7	69.0	129.0	30.0
19	C-306	INDIA	3288.8	65.0	139.0	90.0
4	CARAZINHO	BRAZIL	3166.6	69.0	151.0	75.0
5	BONZA 55	COLOMBIA	3155.5	64.0	127.0	90.0
25	IASSUL	BRAZIL	2866.6	73.0	141.0	90.0
21	CHRIS	USA	2488.8	68.0	148.0	80.0
49	BUCK MANANTIAL	ARGENTINA	2377.7	74.0	131.0	50.0
6	PIAMONTES	ARGENTINA	2222.2	79.0	139.0	75.0
35	SELKIRK	CANADA	2055.5	-	103.0	20.0
		GRAND MEAN	4047.5	65.6	112.4	36.0
	STANDARD ERROR OF GRAND MEAN		31.2	0.0	0.4	0.6
	COEFFICIENT OF VARIATION		9.4%	0.2%	4.3%	23.3%
	LSD VARIETY MEANS 5 PC		765.4	0.3	9.8	16.8

CORRELATIONS

YIELD	KG/HA			
DAYS TO	FLOWER	0.14		
HEIGHT	CM.	-0.52**	0.18	
LODGING		-0.43**	0.12	0.79**

* SIGNIFICANT AT THE 5 LEVEL ** SIGNIFICANT AT THE 1 LEVEL

TABLE 23 ASIA W. PAKISTAN TANDOJAM

AGRICULTURAL RESEARCH INSTITUTE
COOPERATORS Z.A. MUNSHI AND WHEAT RESEARCH STAFF.

LATITUDE	025 02'N	DATE PLANTED	11/16/70	NITROGEN	120.0 KG/HA
LONGITUDE	068 38'E	DATE HARVESTED	--/--/--	PHOSPHORUS	026.0 KG/HA
ELEVATION	+00019 M.ABOVE S.L.	AMOUNT OF MOISTURE	0510 MM	POTASSIUM	---.- KG/HA

LOCAL VARIETY NOT IDENTIFIED. SHORT AND WARM WINTER. NEGLIGIBLE RAINS DURING GROWTH PERIOD.
NO INSECT OR PEST PROBLEMS. WEEDS WERE MECHANICALLY CONTROLLED.

VARIETY NUMBER	VARIETY OR CROSS	ORIGIN	YIELD KG/HA	TEST WEIGHT	DAYS TO FLOWER	LEAF RUST	STEM RUST	HEIGHT CM.	1000 GRN WGT GRMS
47	SONORA 64-KLEIN RENDIDOR	ARGENTINA	4766.9	79.5	69.0	TRR	0	101.5	38.4
8	PENJAMO 62	MEXICO	4703.4	79.1	71.0	0	5MR	88.8	40.0
32	CHHOTI LERMA	INDIA	4671.6	80.5	80.0	0	0	104.1	34.8
39	MAZURA 2152	ISRAEL	4576.3	78.5	65.0	0	0	91.4	43.7
15	ZAMBEZI	RHODESIA	4512.7	80.4	74.0	5MR	0	88.8	37.4
1	NAINARI 60	MEXICO	4385.6	75.9	86.0	0	0	114.2	37.3
27	INIA 66	MEXICO	4385.6	82.3	67.0	TRR	TRR	99.0	44.0
14	SIETE CERROS 66	MEXICO	4322.0	78.5	80.0	40S	0	93.9	34.5
42	YECORA 70 =(BLUEBIRD # 2)	MEXICO	4226.7	76.3	71.0	0	30S	76.1	36.8
2	PITIC 62	MEXICO	4194.9	71.5	82.0	TRS	0	99.0	34.5
11	CHENAB 70	PAKISTAN	4131.3	79.7	80.0	TRS	5MR	0.0	43.9
17	SYRIMEX	SYRIA	4131.3	78.7	80.0	50S	0	101.5	37.9
33	SONALIKA	INDIA	4067.8	79.4	63.0	0	0	99.0	53.2
9	SCN 64A X TZPP-NAINARI 60 (C)	ARGENTINA	4067.8	78.5	67.0	0	0	93.9	33.1
22	LERMA ROJO 64 X N10B X ANE3	SUDAN	4036.0	78.6	86.0	0.0	0	88.8	30.8
41	SAFED LERMA	INDIA	4004.2	78.8	80.0	0	0	116.8	39.7
43	MEXICO 120	AUSTRALIA	3908.9	0.0	74.0	0	0	66.0	37.5
18	NAPO 63	COLOMBIA	3877.1	77.2	67.0	50S	0	104.1	37.0
29	LUNCI	RHODESIA	3845.3	78.1	71.0	5MR	TRR	91.4	39.5
20	VICTOR 1	ITALY	3813.5	73.6	92.0	20S	0	99.0	28.5
45	NURI 70 =(BLUEBIRD # 1)	MEXICO	3781.8	80.3	78.0	0	0.0	101.5	39.1
31	POTAM 70	MEXICO	3750.0	75.9	65.0	0	TRR	86.3	44.2
37	ET 2288	TUNISIA	3718.2	0.0	67.0	0	TRR	96.5	38.5
38	LERMA ROJO 64A	MEXICO	3718.2	77.8	70.0	0	0	93.9	37.2
44	ET 2281	TUNISIA	3686.4	79.7	67.0	80S	TRR	91.4	40.0

16	GIZA 155	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
13	SON64 X TZPP-NAINARI 60 (B)	ARGENTINA	3586.4	76.0	80.0	0	0	88.8	44.0
36	TOE) 8156	MEXICO	3634.6	76.9	67.0	0	5MS	88.8	39.1
26	TURPIN 7	S. AFRICA	3622.9	71.0	83.0	TRR	0	73.6	32.9
34	CAJEME 71 =(BLUEBIRD # 4)	MEXICO	3591.1	76.4	87.0	0	10S	88.8	38.1
23	SARIC 70 =(BLUEBIRD # 3)	MEXICO	3559.3	72.5	90.0	0	5S	81.2	32.1
12	FATC ARGENTINO	ARGENTINA	3527.5	0.0	80.0	20S	0	93.9	24.5
28	TINGALEN	AUSTRALIA	3464.0	77.7	82.0	10MS	0	116.8	36.1
7	36896-CJ542 X YAKTANA 54 A(H)	SUDAN	3464.0	77.2	67.0	0	0	99.0	43.6
24	HUELGUEN	CHILE	3400.4	77.2	80.0	0	0	119.3	39.0
3	(TZPP-SON 64) (LR64A-TZPP X ANE3)	MEXICO	3336.8	80.5	71.0	0	0	93.9	34.2
40	TOBARI 66	MEXICO	3273.3	77.3	59.0	0	TRR	93.9	37.5
30	CRESPO 63	COLOMBIA	3273.3	77.2	80.0	0	TRR	129.5	45.6
48	UP 301	INDIA	3114.4	77.0	76.0	0	0	68.5	39.5
50	LOCAL VARIETY		3050.8	76.0	82.0	20MS	TRR	104.1	41.5
25	IASSUL	BRAZIL	2955.5	73.2	90.0	0	0	142.2	37.5
4	CARAZINHO	BRAZIL	2923.7	71.2	89.0	0	0	142.2	31.2
5	BONZA 55	COLOMBIA	2574.1	72.9	75.0	5MR	0	121.9	32.8
19	C-306	INDIA	2542.3	77.2	88.0	60S	4S	137.1	33.3
6	FIAPONTES	ARGENTINA	2510.6	77.2	89.0	20MR	0	129.5	36.0
46	PALMIRA 1	COLOMBIA	2478.8	73.6	82.0	20S	TRR	137.1	37.1
10	GABOTO	ARGENTINA	2256.3	76.4	89.0	0	10S	137.1	32.0
21	CHRIS	USA	1779.6	76.3	82.0	0	0	132.0	29.5
49	BUCK MANANTIAL	ARGENTINA	1144.0	66.2	-	TRMS	TRM	142.2	17.1
35	SELKIRK	CANADA	889.8	-	-	10MR	0	137.1	22.3
		GRAND MEAN	3540.9	70.7	74.2	7.8	1.3	104.2	36.9
	STANDARD ERROR OF GRAND MEAN		56.6						
	COEFFICIENT OF VARIATION		19.6%						
	LSD VARIETY MEANS 5 PC		1388.7						

CORRELATIONS

YIELD	KG/HA						
TEST	WEIGHT	0.25					
DAYS TO	FLOWER	0.39**	0.34*				
LEAF	RUST	-0.01	0.04	0.06			
STEM	RUST	0.04	0.07	0.07	-0.06		
HEIGHT	CM.	-0.58**	0.00	-0.12	0.08	-0.14	
1000 GRN WGT	GRMS	0.53**	0.36**	0.31*	-0.07	-0.03	-0.33*

* SIGNIFICANT AT THE 5 LEVEL ** SIGNIFICANT AT THE 1 LEVEL

TABLE 24 ASIA PHILLIPINES SAN MATEO

CAGAYAN VALLEY EXPERIMENT STATION. SAN MATEO, ISABELA.
COOPERATORS J.M. MANGLICMOT, L.SANTOS, R.T. DONATO.

LATITUDE	017 08'N	DATE PLANTED	12/30/70	NITROGEN	048.0 KG/HA
LONGITUDE	121 53'E	DATE HARVESTED	05/03/71	PHOSPHORUS	048.0 KG/HA
ELEVATION	00069 M.ABOVE S.L.	AMOUNT OF MOISTURE	0392 MM	POTASSIUM	048.0 KG/HA

LOCAL VARIETY NOT ICENTIFIED. GENERALLY CLOUDY DURING DECEMBER, FEBRUARY AND MARCH WITH OCCASIONAL RAIN. DISEASE DEVELOPMENT NEGLIGIBLE. INSECT: STEMBORER.

VARIETY NUMBER	VARIETY OR CROSS	ORIGIN	YIELD KG/HA	DAYS TO FLOWER	DAYS TO MATURITY	HEIGHT CM.	1000 GRN WGT GRMS	TILLE NO.
3	(TZPP-SON 64) (LR64A-TZPP X ANE3)	MEXICO	674.3	52.0	79.3	68.6	30.5	322
33	SONALIKA	INDIA	601.0	46.3	77.0	78.8	36.9	454
12	PATO ARGENTINO	ARGENTINA	562.1	46.3	80.6	65.6	27.3	541
9	SCN 64A X TZPP-NAIPARI 60 (C)	ARGENTINA	532.1	47.3	78.6	75.2	27.9	279
38	LERMA ROJO 64A	MEXICO	522.1	48.3	78.6	74.0	28.3	529
15	ZAMBEZI	RHODESIA	497.7	47.0	80.6	67.8	30.6	225
14	SIETE CERROS 66	MEXICO	486.6	48.6	80.6	73.5	29.4	220
17	SYPINEX	SYRIA	485.5	50.6	80.6	71.2	29.0	427
47	SONORA 64-KLEIN REPIDOR	ARGENTINA	454.3	47.0	77.0	74.1	30.9	501
22	LERMA ROJO 64 X N108 X ANE3	SUDAN	411.0	53.0	83.6	60.9	30.0	141
36	TCB) 8156	MEXICO	407.7	47.0	81.0	64.1	27.2	125
30	CRESPO 63	COLOMBIA	407.7	49.6	84.3	86.4	32.5	275
18	NAFC 63	COLOMBIA	399.9	46.0	78.6	86.7	25.2	253
21	CHRIS	USA	375.5	55.0	87.6	93.5	26.0	121
27	INIA 66	MEXICO	358.8	47.3	78.6	73.3	27.3	290
8	PENJAMO 62	MEXICO	347.7	50.6	81.0	73.3	32.6	162
39	NAZERA 2152	ISRAEL	345.5	51.0	84.3	67.3	22.0	170
46	PALMIRA 1	COLOMBIA	344.4	53.3	84.3	80.6	33.9	286
37	ET 2288	TUNISIA	344.4	47.3	77.0	72.4	25.2	220
50	LOCAL VARIETY		334.4	56.3	88.3	79.8	32.3	130
44	ET 2281	TUNISIA	305.5	48.0	83.0	65.9	34.2	136

40	TCEARI 66	MEXICO	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
1	NAINARI 60	MEXICO	261.0	59.0	80.6	59.2	28.5	86
31	ECTAP 70	MEXICO	256.6	42.0	77.0	71.2	32.5	328
24	HLELCUEN	CHILE	253.3	47.0	77.0	84.6	31.1	221
45	NURI 7C =(BLLEBIRC # 1)	MEXICO	248.8	52.6	79.0	66.8	28.3	197
25	IASSLL	BRAZIL	218.8	64.3	89.3	88.1	29.3	192
7	36E5E-CJ542 X YAKTANA 54 A(H)	SUDAN	201.0	49.0	76.6	69.2	34.0	88
11	CHENAB 70	PAKISTAN	191.0	61.0	93.6	68.4	31.6	58
48	LP 3C1	INDIA	191.0	50.6	78.6	50.8	32.7	232
29	LUNCI	RHODESIA	175.5	51.0	80.3	61.3	26.4	168
28	TIMGALEN	AUSTRALIA	169.9	63.3	89.6	65.9	25.4	320
41	SAFEC LERMA	INDIA	157.7	54.6	83.0	68.9	32.4	168
4	CAFAZINHC	BRAZIL	144.4	66.3	88.3	72.4	31.0	62
6	PIAPCATES	ARGENTINA	119.9	59.0	85.6	75.5	28.3	57
10	GAEOTO	ARGENTINA	112.2	59.0	95.0	79.0	22.2	141
13	SCN64 X TZPP-NAINAFI 60 (B)	ARGENTINA	108.3	56.5	86.5	59.0	30.5	57
5	BONZA 55	COLOMBIA	91.1	59.6	89.0	76.1	25.5	93
2	PITIC 62	MEXICO	79.9	61.0	91.0	67.1	29.2	0.0
19	C-3C6	INDIA	71.1	57.0	93.0	82.7	31.5	0.0
43	MEXICO 120	AUSTRALIA	67.7	61.3	85.3	63.0	29.5	36
49	BLCK MANANTIAL	ARGENTINA	57.7	76.0	96.0	80.6	23.0	0.0
26	TURPIN 7	S. AFRICA	49.9	68.0	82.0	43.1	0.0	168
23	SAFIC 70 =(BLUEEIFC # 3)	MEXICO	33.3	65.0	91.0	49.1	0.0	0.0
16	GIZA 155	EGYPT	29.9	62.3	92.3	65.6	0.0	46
34	CAJEME 71 =(ELUEBIRC # 4)	MEXICO	0.0	0.0	0.0	0.0	0.0	0.0
		GRAND MEAN	283.4	53.8	83.4	70.5	27.2	
		STANCARD ERROR OF GRAND MEAN	14.3	0.2	0.2	0.4	0.3	
		COEFFICIENT OF VARIATION	60.0%	4.9%	3.8%	8.2%	16.2%	
		LSC VARIETY MEANS 5 PC	340.3	5.3	6.3	11.6	8.8	

CORRELATIONS

YIELD KG/HA					
DAYS TO FLOWER	-0.28*				
CAYS TO MATURITY	-0.02	0.89**			
HEIGHT CM.	0.34*	0.46**	0.69**		
100C GRN WGT GRMS	0.47**	0.05	0.29*	0.59**	
TILLE NO.	0.00	0.00	0.00	0.00	0.00

* SIGNIFICANT AT THE 5 LEVEL ** SIGNIFICANT AT THE 1 LEVEL

CCERUDJA AGRICULTURAL RESEARCH INSTITUTE.
CCOPERATORS GEORGI PETROV

LATITUDE 043 40'N DATE PLANTED
LONGITUDE 028 10'E DATE HARVESTED
ELEVATION +00236 M.ABOVE S.L. AMOUNT OF MOISTURE

LOCAL VARIETY SAN FRCSPERO. MODERATE DROUGHTS DURI
PEST PROBLEMS.

VARIETY NUMBER	VARIETY OR CROSS	ORIGIN	YIELD KG/HA
28	TIPGALEN	AUSTRALIA	5155.0
31	FCTAP 70	MEXICO	4799.5
14	SIETE CERROS 66	MEXICO	4755.0
49	BUCK MANANTIAL	ARGENTINA	4177.3
24	HUELQUEN	CHILE	4088.4
22	LERMA ROJO 64 X N108 X ANE3	SUDAN	4088.4
8	PENJAMO 62	MEXICO	4021.8
2	FITIC 62	MEXICO	3999.5
44	BT 2281	TUNISIA	3999.5
30	CRESFO 63	COLOMBIA	3955.1
29	LUNCI	RHODESIA	3955.1
12	PATO ARGENTINO	ARGENTINA	3910.7
32	CHHCTI LERMA	INDIA	3910.7
10	GAbOTO	ARGENTINA	3732.9
15	ZAMBEZI	RHODESIA	3599.6
21	CHRIS	USA	3555.1
41	SAFEC LERMA	INDIA	3510.7
48	LP 301	INDIA	3466.3
34	CAJEME 71 =(BLUEBIRD # 4)	MEXICO	3377.4
37	BT 2288	TUNISIA	3377.4
9	SCN 64A X TZPP-NAINARI 60 (C)	ARGENTINA	3355.2
13	SCN64 X TZPP-NAINARI 60 (B)	ARGENTINA	3355.2
7	EEESE-CJ542 X YAKTANA 54 A(H)	SUDAN	3332.9
36	TCE X 8156	MEXICO	3288.5
47	SONORA 64-KLEIN RENDIDOR	ARGENTINA	3288.5
39	FAZENDA 2152	ISRAEL	3288.5
43	MEXICO 120	AUSTRALIA	3221.8
23	SARIC 70 =(BLUEBIRD # 3)	MEXICO	3199.6
25	IASSUL	BRAZIL	3110.7
38	LERMA ROJO 64A	MEXICO	3110.7
46	PALMIRA 1	COLOMBIA	3066.3
5	BONZA 55	COLOMBIA	3021.9
6	PIAMONTES	ARGENTINA	2977.4
3	(TZPP-SCN 64) (LR64A-TZPP X ANE3)	MEXICO	2977.4
17	SYRIMEX	SYRIA	2977.4
20	VICTOR 1	ITALY	2888.5
40	TOBARI 66	MEXICO	2844.1
18	NAPO 63	COLOMBIA	2799.7
45	NURI 70 =(BLUEBIRD # 1)	MEXICO	2795.7
11	CHENAB 70	PAKISTAN	2755.2
16	GIZA 155	EGYPT	2710.8
42	MECORA 70 =(BLUEBIRD # 2)	MEXICO	2621.9
27	INIA 66	MEXICO	2488.6
26	TURPIN 7	S. AFRICA	2466.4
33	SONALIKA	INDIA	2399.7
50	LOCAL VARIETY		2244.2
35	SELKIRK	CANADA	2177.5
4	CAPAZIANO	BRAZIL	2044.2
1	NAINARI 60	MEXICO	1999.7
19	C-306	INDIA	1910.9

GRAND MEAN 3283.2
STANDARD ERROR OF GRAND MEAN 35.9
COEFFICIENT OF VARIATION 13.4%
LSD VARIETY MEANS 5 PC 880.1

CORRE

YIELD KG/HA	
DAYS TO FLOWER	0.05
DAYS TO MATURITY	-0.07
LEAF RUST	0.11
STEM RUST	-0.10
HEIGHT CM.	-0.01
1000 GRN WGT GRMS	-0.03
POWDERY MILDEW	-0.14

* SIGNIFICANT AT THE 5 LEVEL ** SIG

RIA GEN. TOSCHEWO.

3/24/71 NITROGEN 136.0 KG/HA
0/16/71 PHOSPHORUS 075.0 KG/HA
0219 MM POTASSIUM ---.- KG/HA

THE SPRING. NO INSECT, WEED OR

AYS TO FLOWER	DAYS TO MATURITY	LEAF RUST	STEM RUST	HEIGHT CM.	1000 GRN WGT GRMS	POWDERY MILDEW
159.0	200.0	40S	10MR	162.5	31.6	2.0
152.0	197.0	TR	25MS	150.8	36.6	20.0
153.0	198.0	60S	TR	165.8	27.8	20.0
161.0	203.0	5MR	TR	164.0	27.2	65.0
161.0	203.0	0	0	179.8	27.2	65.0
159.0	202.0	65S	10MR	138.4	25.0	40.0
156.0	198.0	TR	TR	195.0	29.3	65.0
159.0	201.0	5MR	TR	187.9	26.5	4.0
156.0	200.0	40S	TR	129.5	27.0	40.0
158.0	200.0	TR	0	200.9	26.0	65.0
157.0	200.0	TR	TR	136.6	28.5	2.0
155.0	198.0	5MR	10MR	149.6	24.4	65.0
156.0	203.0	TR	TR	165.6	32.6	20.0
159.0	200.0	0	TR	221.2	29.9	65.0
157.0	201.0	TR	0	156.4	28.3	50.0
159.0	204.0	TR	0	180.8	23.9	65.0
155.0	200.0	10MR	TR	156.9	36.9	65.0
155.0	199.0	25MS	0	99.3	37.1	65.0
153.0	200.0	TR	10MR	103.1	32.1	20.0
153.0	200.0	TR	0	123.1	32.2	20.0
154.0	199.0	0	TR	201.6	28.0	40.0
156.0	199.0	TR	TR	151.8	30.3	40.0
155.0	197.0	5MR	TR	153.0	30.5	20.0
154.0	197.0	5MR	TR	129.2	28.4	20.0
153.0	199.0	TR	5MR	163.5	31.8	65.0
155.0	202.0	5MR	TR	153.4	34.0	65.0
156.0	202.0	5MR	TR	115.8	28.1	65.0
163.0	203.0	0	TR	108.7	30.2	20.0
163.0	203.0	0	TR	224.2	27.6	65.0
153.0	200.0	25MR	0	174.4	30.7	65.0
156.0	200.0	65S	5MR	171.7	25.7	65.0
157.0	198.0	5MR	TR	209.2	27.5	4.0
159.0	199.0	40S	TR	208.9	30.1	4.0
154.0	198.0	0	TR	173.9	34.6	65.0
157.0	201.0	65S	5MR	170.4	45.5	65.0
161.0	200.0	65S	5MR	138.4	25.9	65.0
157.0	203.0	TR	TR	170.6	32.3	20.0
153.0	200.0	65S	5MR	202.6	29.2	20.0
156.0	200.0	TR	5MR	152.9	30.2	65.0
154.0	197.0	5MR	10MR	157.4	27.3	40.0
157.0	201.0	5MR	TR	164.0	30.9	65.0
155.0	201.0	0	5MR	128.2	30.3	2.0
152.0	195.0	TR	TR	155.9	29.5	65.0
156.0	198.0	0	0	119.3	33.5	65.0
152.0	204.0	TR	0	146.3	37.0	40.0
160.6	202.6	65S	65S	121.1	23.2	40.0
152.0	203.0	TR	TR	211.3	26.8	63.3
159.0	201.0	0	TR	207.7	22.0	20.0
156.0	159.0	5MR	5MR	175.7	33.9	20.0
157.0	201.0	5MR	5MR	143.5	30.0	65.0
156.6	200.1	12.2	1.9	162.2	29.9	42.9
0.0	0.0	0.4	0.4	0.1	0.1	0.2
0.3%	0.1%	43.6%	264.5%	1.2%	4.2%	5.7%
1.1	0.6	10.7	10.4	4.1	2.5	4.9

ATIONS

0.53**					
0.13	0.00				
0.13	0.06	0.23			
0.18	-0.00	-0.04	-0.23		
-0.42**	-0.11	-0.03	-0.16	-0.20	
0.05	0.12	-0.05	-0.07	0.02	0.04

FICANT AT THE 1 LEVEL

TABLE 26 EUROPE GERMANY WATERNEVERSTORF

NORDSAAT.
COOPERATORS DR. KLAUS VON ROSENSTIEL.

LATITUDE	054 25°N	DATE PLANTED	04/17/71	NITROGEN	162.0 KG/HA
LONGITUDE	010 36°E	DATE HARVESTED	--/--/--	PHOSPHORUS	080.0 KG/HA
ELEVATION	+00005 M.ABOVE S.L.	AMOUNT OF MOISTURE	0265 MM	POTASSIUM	080.0 KG/HA

LOCAL VARIETY KOLIBRI.

VARIETY NUMBER	VARIETY OR CROSS	ORIGIN	YIELD KG/HA	DAYS TO FLOWER	HEIGHT CM.	LODGING	1000 GRN WGT GRMS	POWDERY MILDEW
24	HUELQUEN	CHILE	5080.0	81.6	85.0	55.4	45.6	33.2
50	LOCAL VARIETY		5080.0	84.6	83.3	11.0	51.5	33.2
22	LERMA ROJO 64 X N1CB X ANE3	SUDAN	4786.6	79.6	61.6	11.0	39.9	33.3
39	HAZERA 2152	ISRAEL	4733.3	83.3	68.3	18.4	49.9	11.0
20	VICTOR 1	ITALY	4506.6	84.6	60.0	11.0	41.6	33.3
2	FITIC 62	MEXICO	4213.3	87.0	78.3	85.0	43.0	33.3
49	BUCK MANANTIAL	ARGENTINA	4133.3	80.0	78.3	33.2	40.8	55.5
47	SONORA 64-KLEIN RENDIDOR	ARGENTINA	4040.0	83.0	76.6	33.2	46.1	33.2
44	BT 2281	TUNISIA	4026.6	79.3	70.0	11.0	45.4	33.2
30	CRESPO 63	COLOMBIA	4013.3	79.6	86.6	18.4	47.3	33.2
46	PALMIRA 1	COLOMBIA	4013.3	78.0	80.0	62.8	56.0	55.5
40	TOBARI 66	MEXICO	3853.3	78.0	80.0	11.0	46.6	11.0
37	ET 2288	TUNISIA	3773.3	77.6	73.3	33.2	44.5	11.0
14	SIETE CERROS 66	MEXICO	3680.0	79.6	70.0	25.8	40.4	11.1
17	SYRIMEX	SYRIA	3680.0	83.3	73.3	33.2	46.7	33.3
36	TOE) 8156	MEXICO	3600.0	81.6	61.6	11.0	43.5	11.0
16	GIZA 155	EGYPT	3573.3	82.6	75.0	18.4	47.4	11.1
9	SCN 64A X TIBF-MAIMARI 60 (C)	ARGENTINA	3520.0	80.0	76.6	11.0	42.4	11.1
28	TINGALEN	AUSTRALIA	3440.0	83.6	68.3	11.0	45.6	33.2
45	NURI 70 =(BLUEBIRD # 1)	MEXICO	3440.0	77.6	71.6	18.4	47.1	33.2
29	LUNDI	RHODESIA	3426.6	81.6	60.0	11.0	43.3	11.0
18	NAFC 63	COLOMBIA	3426.6	82.6	78.3	11.0	46.1	33.3
21	CHRIS	USA	3373.3	83.3	100.0	40.6	44.3	55.5

7	30894-CJ542 X YAKTANA 54 A(M)	SUDAN	3280.0	83.6	73.3	40.6	44.9	33.3
32	CHECTI LERMA	INDIA	3266.6	79.6	70.0	25.8	41.8	33.2
10	GABOTO	ARGENTINA	3266.6	81.6	88.3	55.4	40.2	55.5
25	IASSUL	BRAZIL	3253.3	84.6	111.6	77.6	49.2	55.5
35	SELKIRK	CANADA	3146.6	78.0	91.6	33.2	44.2	33.2
1	NAINARI 60	MEXICO	3093.3	83.0	76.6	11.0	52.5	33.3
13	SON64 X TZFF-NAINARI 60 (B)	ARGENTINA	3013.3	78.0	66.6	11.0	50.8	11.1
4	CARAZINHO	BRAZIL	3000.0	93.6	96.6	29.5	48.2	55.5
6	FIAPCNTES	ARGENTINA	2920.0	83.3	85.0	25.8	44.1	33.3
33	SONALIKA	INDIA	2893.3	79.6	73.3	25.8	54.2	33.2
15	ZAPEEZI	RHODESIA	2760.0	77.6	61.6	11.0	37.3	33.3
43	MEXICO 120	AUSTRALIA	2666.6	78.0	51.6	18.4	42.2	55.5
38	LERMA ROJO 64A	MEXICO	2586.6	80.0	73.3	99.8	51.3	33.2
31	FCTAM 70	MEXICO	2573.3	83.3	65.0	55.4	53.0	33.2
41	SAFED LERMA	INDIA	2520.0	79.6	70.0	99.8	50.0	55.5
23	SAFIC 70 =(ELUEEIFC # 3)	MEXICO	2373.3	83.0	56.6	11.0	53.6	33.2
48	LP 301	INDIA	2293.3	84.0	51.6	11.0	48.2	33.2
11	CHENAB 70	PAKISTAN	2280.0	80.0	58.3	11.0	48.3	11.1
42	YECORA 70 =(ELUEBIFD # 2)	MEXICO	2213.3	82.6	56.6	11.0	55.2	11.0
27	INIA 66	MEXICO	2173.3	83.0	66.6	11.0	49.2	33.2
34	CAJEME 71 =(ELUEEIFD # 4)	MEXICO	2120.0	82.6	61.6	11.0	55.3	33.2
8	PENJAMO 62	MEXICO	2080.0	80.0	70.0	18.4	46.6	11.1
3	(TZFF-SON 64) (LR64A-TZPP X AVE3)	MEXICO	1826.6	83.3	58.3	29.5	44.0	55.5
19	C-306	INDIA	1573.3	82.6	81.6	25.8	47.1	33.3
26	TUFFIN 7	S. AFRICA	1280.0	87.0	50.0	11.0	55.4	33.2
		GRAND MEAN	3250.1	81.5	73.2	27.8	46.8	31.9
	STANDARD ERROR OF GRAND MEAN		55.2	0.0	0.3	0.9	0.1	0.1
	COEFFICIENT OF VARIATION		20.8%	0.6%	6.6%	42.9%	4.9%	5.5%
	LSD VARIETY MEANS 5 PC		1354.1	1.1	9.7	23.9	4.6	3.5

CORRELATIONS

YIELD	KG/HA					
DAYS TO	FLOWER	-0.08				
HEIGHT	CM.	0.30*	0.07			
LODGING		0.04	0.06	0.40**		
1000 GRN WGT	GRMS	-0.33*	0.24	-0.09	0.08	
POWDERY MILDEW		-0.06	0.05	0.27*	0.41**	-0.06

* SIGNIFICANT AT THE 5 LEVEL ** SIGNIFICANT AT THE 1 LEVEL

TABLE 27 EUROPE NETHERLANDS RILLAND

D. J. VAN DER HAVE BREEDING STATION.
COOPERATORS K.B. GELING.

LATITUDE	051 27' N	DATE PLANTED	03/22/71	NITROGEN	040.0 KG/HA
LONGITUDE	004 20'E	DATE HARVESTED	10/23/71	PHOSPHORUS	---.- KG/HA
ELEVATION	-00004 M.BELOW S.L.	AMOUNT OF MOISTURE	0290 MM	POTASSIUM	---.- KG/HA

LOCAL VARIETY TORO. YIELD REDUCTION BY MILDEW FROM TEN TO TWENTY PERCENT. NO INSECT, WEED OR PEST PROBLEMS.

VARIETY NUMBER	VARIETY OR CROSS	ORIGIN	YIELD KG/HA	DAYS TO MATURITY	HEIGHT CM.	LODGING	1000 GRN WGT GRMS
14	SIETE CERROS 66	MEXICO	3486.6	209.3	73.3	4.3	31.0
15	ZAMBEZI	RHODESIA	3446.6	208.6	70.0	1.3	29.3
31	PCTAM 70	MEXICO	3362.0	208.6	70.0	5.6	42.6
2	FITIC 62	MEXICO	3283.3	209.0	83.3	4.3	34.6
36	TOE) 8156	MEXICO	3190.0	209.3	63.3	0.6	32.3
21	CHRIS	USA	3136.6	210.0	100.0	4.3	31.3
47	SONORA 64-KLEIN RENDIDOR	ARGENTINA	2966.6	210.0	73.3	5.6	34.6
40	TOBARI 66	MEXICO	2950.0	210.6	76.6	1.3	34.0
30	CRESPO 63	COLOMBIA	2910.0	210.0	89.3	15.0	34.3
8	BENJAMO 62	MEXICO	2836.6	209.0	75.0	1.3	38.6
33	SONALIKA	INDIA	2788.6	209.3	75.0	5.3	40.3
24	HUELQUEN	CHILE	2750.0	210.6	80.0	23.3	32.3
29	LUNDI	RHODESIA	2726.6	205.6	61.6	8.3	30.3
9	SON 64A X TZPP-NAINARI 60 (C)	ARGENTINA	2720.0	209.3	75.0	1.0	31.0
4	CARAZINHO	BRAZIL	2683.3	210.0	90.0	4.0	40.6
16	GIZA 155	EGYPT	2670.0	211.3	75.0	6.6	41.0
37	ET 2288	TUNISIA	2626.6	209.3	75.6	3.6	35.6
22	LERMA ROJO 64 X N10B X ANE3	SUDAN	2623.3	208.6	60.0	1.6	34.6
38	LERMA ROJO 64A	MEXICO	2610.0	208.6	75.0	5.6	41.3
49	BUCK MANANTIAL	ARGENTINA	2593.3	209.3	73.3	3.6	33.3
41	SAFED LERMA	INDIA	2578.0	209.3	66.6	4.3	39.6
1	NAINARI 60	MEXICO	2570.0	209.6	80.0	4.3	42.3

12	PATO ARGENTINO	ARGENTINA	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
18	NAPO 63	COLOMBIA	2502.0	209.6	81.6	15.0	36.0
10	CAECTO	ARGENTINA	2480.0	210.0	85.0	3.0	33.3
28	TIMGALEN	AUSTRALIA	2476.6	208.6	68.3	0.3	38.3
46	PALMIRA 1	COLOMBIA	2460.0	209.3	75.5	46.6	42.6
50	LOCAL VARIETY		2443.3	216.6	86.6	1.0	42.5
25	BASSUL	BRAZIL	2420.0	210.0	100.0	3.3	41.3
3	(TZPP-SON 64) (LR64A-TZPP X ANE3)	MEXICO	2388.0	208.0	68.3	19.0	35.0
23	SARIC 70 =(BLUEBIRD # 3)	MEXICO	2352.6	204.6	56.6	0.6	40.6
17	SYRIMEX	SYRIA	2350.0	210.0	73.3	6.0	35.0
13	SON64 X TZPP-NAINARI 60 (B)	ARGENTINA	2330.0	210.6	65.0	0.6	37.3
5	ECAZA 55	COLOMBIA	2320.0	208.0	91.5	10.0	38.0
45	NURI 70 =(BLUEBIRD # 1)	MEXICO	2296.6	208.0	66.6	3.6	36.3
44	BT 2281	TUNISIA	2283.3	209.3	68.3	0.6	36.0
6	PIAMONTES	ARGENTINA	2280.0	208.6	75.0	10.0	36.0
7	36896-CJ542 X YAKTANA 54 A(H)	SUDAN	2244.6	207.6	68.3	5.0	39.3
39	NAZERA 2152	ISRAEL	2137.3	209.3	61.6	1.3	34.6
48	UP 301	INDIA	2133.3	207.3	50.0	0.0	39.6
32	CHHOTI LERMA	INDIA	2056.6	210.6	70.0	2.0	33.6
43	MEXICO 120	AUSTRALIA	1938.6	205.0	50.0	1.6	34.6
42	YECORA 70 =(BLUEBIRD # 2)	MEXICO	1932.0	205.6	53.3	1.0	40.0
11	CHENAB 70	PAKISTAN	1926.6	207.0	68.3	3.0	35.3
19	C-306	INDIA	1920.6	209.3	86.6	30.6	39.6
34	CAJEME 71 =(BLUEBIRD # 4)	MEXICO	1800.0	208.3	55.0	0.6	41.3
26	TUFFIN 7	S. AFRICA	1493.3	204.3	50.0	1.0	35.0
27	INIA 66	MEXICO	1463.3	208.3	65.0	1.6	34.0
20	VICTOR 1	ITALY	1257.3	496.6	112.6	22.3	34.0
		GRAND MEAN	2484.6	214.5	73.5	6.6	36.4
	STANDARD ERROR OF GRAND MEAN		28.2	5.7	1.0	0.7	0.1
	COEFFICIENT OF VARIATION		13.9%	33.0%	17.2%	133.3%	4.6%
	LSD VARIETY MEANS 5 P:		693.0	141.7	25.4	17.8	3.4

CORRELATIONS

YIELD KG/HA					
DAYS TO MATURITY	-0.35*				
HEIGHT CM.	0.17	0.45**			
LODGING	-0.08	0.24	0.42**		
1000 GRN WGT GRMS	-0.19	-0.09	-0.00	0.11	

* SIGNIFICANT AT THE 5 LEVEL ** SIGNIFICANT AT THE 1 LEVEL

TABLE 28 EUROPE PORTUGAL ELVAS

ESTACAO DE MELHORAMENTO DE PLANTAS,
COOPERATORS M.T. BARRADAS AND F. BAGULHO.

LATITUDE	038 53' N	DATE PLANTED	12/04/70	NITROGEN	130.0 KG/HA
LONGITUDE	007 09' W	DATE HARVESTED	05/28/71	PHOSPHORUS	018.0 KG/HA
ELEVATION	+00208 M.ABOVE S.L.	AMOUNT OF MOISTURE	0446 MM	POTASSIUM	040.0 KG/HA

LOCAL VARIETY CHAIMITE. EXTREMELY FAVORABLE WEATHER. LATE DEVELOPMENT OF STEM RUST AND MILDEW.
NO INSECT, WEED OR PEST PROBLEMS.

VARIETY NUMBER	VARIETY OR CROSS	ORIGIN	YIELD KG/HA	TEST WEIGHT	DAYS TO FLOWER	DAYS TO MATURITY	HEIGHT CM.	1000 GRN WGT GRMS	SEPTORIA SPP.
42	YECORA 70 =(BLUEBIRD # 2)	MEXICO	9079.9	84.6	126.0	192.0	87.6	53.5	96.1
36	108) 8156	MEXICO	8663.3	83.9	131.6	195.0	98.3	37.3	95.1
41	SAFED LERMA	INDIA	8553.3	84.7	129.0	195.0	118.6	46.2	96.1
7	36656-CJ542 X YAKTANA 54 A(H)	SUDAN	8346.6	81.5	126.6	195.0	111.0	44.2	88.7
2	PITIC 62	MEXICO	8291.0	78.3	132.3	195.6	113.6	42.6	92.4
44	ET 2281	TUNISIA	8189.9	84.9	125.0	196.6	105.0	53.0	88.7
14	SIETE CERROS 66	MEXICO	8186.6	83.6	137.0	196.0	115.0	39.9	99.8
45	NURI 70 =(BLUEBIRD # 1)	MEXICO	8062.1	86.2	128.0	192.3	106.3	45.7	96.1
33	SONALIKA	INDIA	8059.9	83.3	121.3	193.3	109.6	57.7	96.1
22	LERMA ROJO 64 X NIC8 X ANE3	SUDAN	8025.5	84.3	136.6	196.6	97.0	41.6	85.0
47	SONORA 64-KLEIN RENDIDOR	ARGENTINA	7986.6	85.7	129.0	193.6	111.0	44.2	88.7
1	NAINARI 60	MEXICO	7975.5	82.7	133.0	194.6	127.6	48.9	92.4
8	FENJAMC 62	MEXICO	7937.7	82.8	134.0	194.3	115.6	46.9	88.7
12	PATO ARGENTINO	ARGENTINA	7831.0	85.3	135.0	196.6	115.6	37.0	77.6
39	HAZERA 2152	ISRAEL	7831.0	81.4	129.0	195.0	98.3	45.6	96.1
48	LP 301	INDIA	7831.0	83.2	131.3	194.3	91.3	45.9	99.8
31	FCTAM 70	MEXICO	7826.6	84.9	123.6	192.0	105.0	51.0	92.4
11	CHENAB 70	PAKISTAN	7807.7	84.2	129.6	193.3	112.6	48.1	88.7
16	GIZA 155	EGYPT	7796.6	82.4	131.3	198.3	126.0	47.1	96.1
17	SYRIMEX	SYRIA	7776.6	84.8	135.6	196.6	115.3	44.5	92.4
50	LOCAL VARIETY		7558.8	83.4	145.6	132.0	107.0	44.9	85.0
30	CRESPO 63	COLOMBIA	7621.0	83.9	131.0	195.6	127.0	45.4	88.7
38	LERMA ROJO 64A	MEXICO	7544.4	85.4	130.6	194.6	125.0	47.8	92.4
32	CHHOTI LERMA	INDIA	7519.9	84.4	132.3	195.6	110.0	38.6	96.1

[illegible]	CHHOTI LERMA	INDIA	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	
18	NAPO 63	COLOMBIA	[illegible]	[illegible]	[illegible]	194.6	128.0	43.6	92.4
49	BUCK MANANTIAL	ARGENTINA	7383.3	85.0	141.6	168.6	135.6	36.3	66.5
15	ZAMBEZI	RHODESIA	7371.0	83.2	133.6	196.6	106.6	38.6	99.8
9	SON 64A X TZPP-NAINARI 60 (C)	ARGENTINA	7363.3	84.9	123.0	190.6	106.6	38.5	88.7
43	MEXICO 120	AUSTRALIA	7358.3	82.8	123.6	191.0	78.3	43.6	99.8
40	TOBARI 66	MEXICO	7329.9	84.9	123.3	194.0	109.0	45.8	88.7
37	ET 2288	TUNISIA	7176.6	84.2	122.6	194.3	108.0	43.6	88.7
24	HUELQUEN	CHILE	7173.3	82.4	137.3	197.3	135.6	43.7	92.4
23	SARIC 70 =(BLUEBIRD # 3)	MEXICO	7134.4	84.1	126.3	189.3	92.0	51.1	99.8
46	PALMIRA 1	COLOMBIA	7121.0	80.3	133.3	194.3	129.0	46.8	77.6
28	TIMGALEN	AUSTRALIA	7044.4	82.0	133.6	196.3	113.0	45.3	99.8
3	(TZPP-SON 64) (LR64A-TZPP X ANE3)	MEXICO	7033.3	85.8	132.3	193.3	111.0	42.9	85.0
34	CAJEME 71 =(BLUEBIRD # 4)	MEXICO	7031.0	84.3	127.6	189.3	89.6	57.5	99.8
26	TURPIN 7	S. AFRICA	6784.4	79.3	131.6	193.6	81.3	47.7	99.8
20	VICTOR 1	ITALY	6663.3	82.2	137.0	195.0	92.0	45.0	88.7
5	BONZA 55	COLOMBIA	6634.4	81.5	132.0	195.3	137.0	43.7	88.7
29	LUADI	RHODESIA	6597.7	81.6	129.0	192.6	93.3	41.7	99.8
4	CARAZINHO	BRAZIL	6341.0	82.3	136.0	198.6	137.3	50.9	73.9
6	PIAMONTES	ARGENTINA	6207.7	84.4	137.6	197.6	135.0	44.5	88.7
27	INIA 66	MEXICO	6157.7	85.7	124.6	186.3	106.0	50.7	88.7
21	CHRIS	USA	5993.3	84.6	135.6	196.0	143.6	38.0	73.9
19	C-306	INDIA	5977.7	83.3	128.0	194.6	125.6	44.7	99.8
13	SON64 X TZPP-NAINARI 60 (B)	ARGENTINA	5765.5	83.4	132.3	195.6	105.3	54.9	81.3
25	IASSUL	BRAZIL	5731.0	83.3	139.6	195.6	146.6	50.5	77.6
10	CABOTO	ARGENTINA	5666.6	83.8	138.0	197.0	139.6	37.1	88.7
35	SELKIRK	CANADA	4628.8	81.6	150.0	199.3	141.5	40.1	77.6
		GRAND MEAN	7305.8	83.5	131.6	192.8	113.5	45.3	90.4
		STANDARD ERROR OF GRAND MEAN	53.5	0.0	0.2	1.4	0.4	0.2	0.5
		COEFFICIENT OF VARIATION	8.9%	0.8%	2.6%	9.4%	4.6%	7.1%	7.3%
		LSD VARIETY MEANS 5 PC	1302.5	1.3	6.9	36.3	10.5	6.5	13.3

CORRELATIONS

YIELD KG/HA						
TEST WEIGHT	0.13					
DAYS TO FLOWER	-0.39**	-0.21				
DAYS TO MATURITY	-0.09	-0.10	-0.24			
HEIGHT CM.	-0.41**	0.00	0.50**	0.11		
1000 GRN WGT GRMS	0.06	-0.00	-0.40**	0.01	-0.24	
SEPTORIA SPP.	0.36**	-0.11	-0.43**	0.16	-0.53**	0.18

* SIGNIFICANT AT THE 5 LEVEL ** SIGNIFICANT AT THE 1 LEVEL

TABLE 29 EUROPE ROMANIA

STATIUNEA EXPERIMENTALA AGRICOLA TURDA.
COOPERATORS TIMARIU AUREL.

LATITUDE 046 36'N DATE PLANTED 04/
LONGITUDE 023 47'E DATE HARVESTED 08/
ELEVATION +00428 M.ABOVE S.L. AMOUNT OF MOISTURE 02

LOCAL VARIETY NOT IDENTIFIED. POOR YEAR FOR RAINFALL.
INSECTS WERE CONTROLLED WITH 35 KG/HA. OF ALDRIN.

VARIETY NUMBER	VARIETY OR CROSS	ORIGIN	YIELD KG/HA	WE
14	SIETE CERROS 66	MEXICO	7159.6	
40	TOBARI 66	MEXICO	7091.9	
2	FITIC 62	MEXICO	7027.6	
36	TOB * E156	MEXICO	6864.3	
9	SCA 64A X TZPP-NAINARI 60 (C)	ARGENTINA	6752.9	
13	SON64 X TZPP-NAINARI 60 (B)	ARGENTINA	6727.6	
39	HAZERA 2152	ISRAEL	6725.3	
32	CHHCTI LERMA	INDIA	6717.3	
31	POTAM 7C	MEXICO	6634.9	
34	CAJEME 71 =(BLUEBIRD # 4)	MEXICO	6620.9	
8	PENJAMO 62	MEXICO	6557.3	
33	SONALIKA	INDIA	6389.6	
27	INIA 66	MEXICO	6356.3	
16	GIZA 155	EGYPT	6338.6	
12	FAIC ARGENTINO	ARGENTINA	6330.6	
22	LERMA ROJO 64 X N10B X ANE3	SUDAN	6325.3	
28	TINGALEN	AUSTRALIA	6323.9	
42	YECORA 70 =(BLUEBIRD # 2)	MEXICO	6289.9	
37	ET 2288	TUNISIA	6286.3	
44	BT 2281	TUNISIA	6281.6	
23	SAFIC 70 =(BLUEBIRD # 3)	MEXICO	6228.3	
38	LERMA ROJO 64A	MEXICO	6169.6	
41	SAFED LERMA	INDIA	6160.6	
11	CHENAB 70	PAKISTAN	6159.6	
29	LUNDI	RHODESIA	6155.3	
47	SONORA 64-PLEIN REMDIDOR	ARGENTINA	6148.6	
46	PALMIRA 1	COLOMBIA	6039.6	
1	NAINARI 60	MEXICO	5956.3	
30	CRESPO 63	COLOMBIA	5992.9	
17	SYRIMEX	SYRIA	5991.6	
45	NURI 70 =(BLUEBIRD # 1)	MEXICO	5922.9	
18	NAPO 63	COLOMBIA	5696.3	
48	LP 301	INDIA	5685.6	
3	(TZPP-SON 64) (LR64A-TZPP X ANE3)	MEXICO	5663.9	
20	VICTOR 1	ITALY	5568.6	
24	HUELQUEN	CHILE	5501.9	
15	ZAMBEZI	RHODESIA	5415.9	
6	FIAPCNTES	ARGENTINA	5399.6	
5	BONZA 55	COLOMBIA	5352.9	
43	MEXICO 120	AUSTRALIA	5337.3	
49	BLOCK MANANTIAL	ARGENTINA	5310.6	
7	36896-CJ542 X YAKTANA 54 A(H)	SUDAN	5281.9	
19	C-306	INDIA	4988.6	
25	IASSUL	BRAZIL	4851.9	
26	TUFFIN 7	S. AFRICA	4841.6	
50	LOCAL VARIETY		4791.6	
35	SELKIRK	CANADA	4762.6	
21	CHRIS	USA	4500.6	
4	CARAZINHO	BRAZIL	4440.6	
10	GABOTO	ARGENTINA	4195.9	
		GRAND MEAN	5927.2	
	STANDARD ERROR OF GRAND MEAN		27.8	
	COEFFICIENT OF VARIATION		5.7%	
	LSD VARIETY MEANS 5 PC		679.1	

	CORRELATI
YIELD KG/HA TEST WEIGHT	0.18
DAYS TO FLOWER	-0.30*
DAYS TO MATURITY	-0.13
HEIGHT CM.	-0.47**
LODGING	-0.69**
SHATRNG	-0.23
1000 GRN WGT GRMS	0.18
MILDEW	-0.24

* SIGNIFICANT AT THE 5 LEVEL ** SIGNIFI

JUDETUL CLU

71 NITROGEN 082.0 KG/HA
71 PHOSPHORUS 072.0 KG/HA
MM POTASSIUM ---.- KG/HA

MER TEMPERATURES IN APRIL.

ST	DAYS TO FLOWER	DAYS TO MATURITY	HEIGHT CM.	LODGING	SHATRNG	1000 GRN WGT GRMS	POWDERY MILDEW
.7	70.0	119.0	87.0	11.1	3.3	37.0	6.0
.0	67.0	120.0	86.6	11.1	1.4	35.3	10.3
.0	72.0	123.0	94.3	11.1	1.8	38.3	13.0
.7	69.0	119.6	75.3	11.1	0.7	40.0	15.0
.6	56.0	119.6	85.6	11.1	4.3	34.3	18.0
.0	74.0	120.0	84.0	11.1	3.0	47.3	8.0
.0	70.0	121.3	82.6	11.1	2.4	41.3	11.0
.5	69.0	120.0	90.6	11.1	0.0	41.3	15.3
.3	64.6	120.0	77.0	22.2	2.3	46.0	36.3
.0	70.0	125.0	68.3	11.1	2.7	46.3	21.3
.5	67.6	120.0	88.3	22.2	4.2	41.3	10.3
.0	67.0	119.6	94.3	11.1	3.2	53.6	15.0
.0	64.6	125.0	85.3	11.1	5.3	48.0	32.0
.0	59.3	121.6	105.6	11.1	2.0	49.0	9.0
.9	69.3	119.3	84.0	11.1	0.0	35.0	40.6
.5	72.0	123.0	74.6	11.1	1.0	34.6	21.3
.0	69.0	120.0	92.5	22.2	2.4	39.3	0.0
.3	67.0	123.3	63.3	11.1	2.9	44.3	20.0
.7	67.0	121.3	88.0	22.2	1.0	39.6	5.6
.7	68.0	120.0	82.0	11.1	3.0	40.0	18.6
.1	59.0	125.0	66.0	11.1	0.9	46.0	20.0
.0	67.0	120.3	95.6	33.3	3.8	44.0	22.3
.6	58.0	119.6	92.3	22.2	3.6	43.6	32.0
.1	66.0	120.0	89.3	11.1	0.0	41.3	32.3
.5	67.0	119.0	73.0	11.1	7.3	42.0	4.0
.1	66.0	119.0	89.6	22.2	12.0	42.3	14.6
.3	66.0	119.0	100.0	66.6	3.9	48.6	37.3
.0	71.3	121.3	103.6	11.1	2.8	48.6	12.6
.1	69.0	121.3	109.3	22.2	2.0	41.0	15.3
.9	69.0	123.0	93.0	22.2	1.7	43.6	20.0
.7	66.0	119.0	81.6	11.1	1.9	39.3	37.6
.7	66.0	119.0	100.3	22.2	2.0	40.6	40.6
.0	66.0	119.0	59.6	22.2	2.9	45.6	14.3
.9	67.0	109.6	83.0	11.1	2.2	36.3	24.3
.9	78.0	125.6	80.6	11.1	1.6	39.3	24.6
.0	71.0	124.0	108.0	55.5	3.4	41.6	20.0
.5	69.0	121.0	87.3	11.1	3.0	33.6	23.3
.7	81.6	123.0	111.0	55.5	4.5	40.0	16.3
.7	61.6	101.6	115.0	33.3	3.0	42.0	24.3
.8	71.0	120.0	59.3	11.1	3.9	35.3	25.0
.5	69.0	122.0	105.6	55.5	2.8	35.0	23.0
.0	71.0	123.0	92.6	11.1	0.7	39.6	25.0
.0	70.0	123.3	117.6	33.3	2.0	48.0	23.3
.5	73.0	124.0	121.0	88.8	1.9	46.6	16.6
.0	67.0	125.0	57.5	11.1	1.2	40.3	18.0
.2	72.0	123.3	129.3	88.8	3.7	35.0	26.3
.0	71.0	121.3	112.3	55.5	4.3	44.6	13.6
.0	71.0	124.0	109.0	77.7	5.7	33.0	17.6
.0	75.0	125.0	115.3	66.6	4.6	42.3	29.3
.2	72.0	123.0	113.5	77.7	3.4	34.3	19.6
.5	69.1	120.8	91.2	26.2	2.8	41.4	19.9
.8	0.3	0.4	0.2		0.2	0.0	0.7
.3	5.7%	4.6%	3.4%		97.7%	1.7%	49.4%
.5	7.9	11.3	6.3		5.4	1.4	19.3
.8							
.00							
.10	0.51**						
.22	0.27*	-0.02					
.04	0.32*	0.17	0.74**				
.01	-0.08	-0.02	0.14	0.28*			
.20	-0.14	0.06	0.01	-0.11	0.04		
.05	-0.19	-0.05	0.03	0.14	-0.05	-0.04	

T AT THE 1 LEVEL

TABLE 30 EUROPE SWEDEN LANDSKRONA

WEIBULLSHOLM PLANT BREEDING INST.
COOPERATORS DR. FAJER FAJERSSON AND MR. G. SVENSSON.

LATITUDE	055 55'N	DATE PLANTED	04/16/71	NITROGEN	130.0 KG/HA
LONGITUDE	012 50'E	DATE HARVESTED	--/--/--	PHOSPHORUS	036.0 KG/HA
ELEVATION	+00005 M.ABOVE S.L.	AMOUNT OF MOISTURE	0161 MM	POTASSIUM	072.0 KG/HA

LOCAL VARIETY SNABBE. GOOD SEASON FOR WHEAT. LATE DEVELOPMENT OF RUST. NO INSECT, WEED OR PEST PROBLEMS.

VARIETY NUMBER	VARIETY OR CROSS	ORIGIN	YIELD KG/HA	DAYS TO FLOWER	1000 GRN WGT GRMS	POWDERY MILDEW
2	PITIC 62	MEXICO	5283.5	67.3	35.2	13.3
49	BUCK MANANTIAL	ARGENTINA	4940.8	65.6	40.8	26.6
7	36656-CJ542 X YAKTANA 54 A(H)	SUDAN	4500.5	65.3	44.5	20.0
22	LERMA ROJO 64 X N10B X ANE3	SUDAN	4486.2	68.3	35.5	40.0
15	ZAMBEZI	RHODESIA	4448.2	64.6	34.4	23.3
50	LOCAL VARIETY		4245.9	73.0	43.0	16.6
17	SYRIMEX	SYRIA	4184.0	64.0	41.0	40.0
20	VICTOR 1	ITALY	4148.3	74.6	36.6	40.0
10	GAUCHO	ARGENTINA	4119.7	68.6	37.2	36.6
44	BT 2281	TUNISIA	4112.6	64.3	41.9	13.3
6	FIRMENTES	ARGENTINA	4093.5	66.6	42.6	40.0
24	HUELQUEN	CHILE	4093.5	68.0	43.2	30.0
41	SAFED LERMA	INDIA	4074.5	64.3	42.8	46.6
4	CARAZINHO	BRAZIL	4010.2	69.0	46.3	66.6
14	SIETE CERROS 66	MEXICO	3972.6	67.0	35.3	6.6
8	FENJAHO 62	MEXICO	3767.5	66.0	43.2	33.3
40	TOBARI 66	MEXICO	3731.8	65.6	42.5	23.3
9	SCA 64A X TZPP-NAINARI 60 (C)	ARGENTINA	3719.9	64.0	38.1	23.3
36	JOB) 8156	MEXICO	3691.3	62.0	39.9	3.3
39	HAZERA 2152	ISRAEL	3686.6	63.3	42.5	20.0
16	GIZA 155	EGYPT	3677.0	62.3	39.5	26.6
32	CHHOTI LERMA	INDIA	3674.7	65.6	41.2	26.6

9	BORLA 55					
12	PATO ARGENTINO	ARGENTINA	3572.3	64.0	39.2	43.3
13	SCN64 X TZPP-NAINARI 60 (B)	ARGENTINA	3553.3	62.3	50.7	13.3
21	CHRIS	USA	3553.3	70.3	37.7	36.6
29	LUNDI	RHODESIA	3524.7	65.3	43.6	3.3
37	BT 228@	TUNISIA	3489.0	62.3	41.2	6.6
45	NURI 70 =(BLUEBIRD # 1)	MEXICO	3377.2	52.6	39.2	43.3
33	SONALIKA	INDIA	3331.9	61.0	46.7	40.0
47	SONORA 64-KLEIN RENDIDOR	ARGENTINA	3329.6	52.0	39.3	13.3
1	NAINARI 60	MEXICO	3322.7	64.6	48.3	30.0
18	NAPO 63	COLOMBIA	3265.3	60.0	41.3	26.6
28	TIMGALEN	AUSTRALIA	3191.2	67.3	43.3	6.6
43	MEXICO 120	AUSTRALIA	3189.1	63.6	39.2	56.6
30	CRESPO 63	COLOMBIA	3134.4	65.6	43.2	26.6
35	SELKIRK	CANADA	3039.2	69.6	43.5	36.6
46	PALMIRA 1	COLOMBIA	2901.2	60.0	46.2	56.6
38	LERMA ROJO 64A	MEXICO	2872.6	61.3	44.0	43.3
19	C-306	INDIA	2863.1	61.0	43.8	16.6
3	(TZPP-SON 64) (LR64A-TZPP X ANE3)	MEXICO	2863.1	64.0	43.1	50.0
48	LP 301	INDIA	2777.4	62.6	42.5	23.3
25	IASSUL	BRAZIL	2775.0	73.0	47.5	30.0
42	YECORA 70 =(BLUEBIRD # 2)	MEXICO	2772.6	62.0	46.8	33.3
34	CAJEME 71 =(BLUEBIRD # 4)	MEXICO	2670.3	63.0	56.4	30.0
11	CHENAB 70	PAKISTAN	2568.0	60.6	42.9	33.3
31	FOTAM 70	MEXICO	2565.6	60.0	47.9	26.6
23	SARIC 70 =(BLUEBIRD # 3)	MEXICO	2429.9	63.6	50.7	40.0
27	INIA 66	MEXICO	2410.9	62.3	42.4	36.6
26	TURPIN 7	S. AFRICA	2244.3	62.0	49.5	43.3
		GRAND MEAN	3517.7	64.8	42.7	29.8
	STANDARD ERROR OF GRAND MEAN		42.3	0.1	0.1	0.8
	COEFFICIENT OF VARIATION		14.7%	2.3%	4.8%	36.6%
	LSD VARIETY MEANS 5 PC		1036.2	3.0	4.1	21.9

CORRELATIONS

YIELD KG/HA				
DAYS TO FLOWER	0.45**			
1000 GRN WGT GRMS	-0.58**	-0.25		
POWDERY MILDEW	-0.19	0.02	0.14	

* SIGNIFICANT AT THE 5 LEVEL ** SIGNIFICANT AT THE 1 LEVEL

TABLE 31 EUROPE YUGOSLAVIA NOVI SAD

INSTITUTE FOR AGRICULTURAL RESEARCH.
COOPERATORS DR. SLAVKO BOROJEVIC.

LATITUDE	045 03' N	DATE PLANTED	03/26/71	NITROGEN	096.0 KG/HA
LONGITUDE	019 08'E	DATE HARVESTED	06/26/71	PHOSPHORUS	043.0 KG/HA
ELEVATION	00084 M.ABOVE S.L.	AMOUNT OF MOISTURE	0141 MM	POTASSIUM	063.0 KG/HA

LOCAL VARIETY NS-718. FAVORABLE CLIMATIC CONDITIONS. NO INSECT WEED OR PEST PROBLEMS.

VARIETY NUMBER	VARIETY OR CROSS	ORIGIN	YIELD KG/HA	TEST WEIGHT	DAYS TO FLOWER	DAYS TO MATURITY	LEAF RUST	HEIGHT CM.	1000 GRN WGT GRMS
2	FITIC 62	MEXICO	4508.3	78.3	52.3	90.3	00	83.3	34.5
8	PENJAMO 62	MEXICO	4375.0	82.1	49.0	87.3	40R	77.0	40.2
14	SIETE CERROS 66	MEXICO	4358.3	81.6	53.0	89.3	20R	74.6	33.9
46	PALMIRA 1	COLOMBIA	4316.6	79.8	48.3	86.6	40S	90.0	42.7
49	BUCK MANANTIAL	ARGENTINA	4225.0	84.7	53.0	91.6	TMS	76.6	34.1
9	SCN 64A X TIFF-MAINARI 60 (C)	ARGENTINA	4191.6	81.2	50.3	87.0	20R	73.0	32.2
18	NAPO 63	COLOMBIA	4125.0	81.7	47.3	86.3	10S	89.6	35.8
44	ET 2281	TUNISIA	4116.6	82.7	52.6	91.3	10S	69.3	41.7
40	TOBARI 66	MEXICO	4108.3	83.5	51.0	90.6	20R	74.6	37.8
28	TIMGALEN	AUSTRALIA	4033.3	80.6	52.3	88.0	40R	70.3	35.9
42	VECCRA 7C =(BLUEBIRD # 2)	MEXICO	3925.0	80.5	50.0	87.0	20R	56.6	42.2
1	NAINARI 60	MEXICO	3750.0	79.3	51.3	89.3	00	80.6	41.6
45	NURI 70 =(BLUEBIRD # 1)	MEXICO	3750.0	83.1	49.3	88.6	20R	68.3	37.8
32	CHHOTI LERMA	INDIA	3725.0	82.5	49.6	90.0	00	74.6	36.4
48	LP 301	INDIA	3725.0	80.1	51.3	86.3	TMS	51.6	42.0
31	POTAM 70	MEXICO	3700.0	82.3	46.0	86.0	10R	64.6	43.4
16	GIZA 155	EGYPT	3658.3	81.6	50.0	90.6	40R	83.3	38.5
33	SONALIKA	INDIA	3650.0	80.5	47.6	91.0	00	72.6	45.5
22	LERMA ROJO 64 X N108 X ANE3	SUDAN	3558.3	82.7	53.3	91.6	TS	66.0	36.8
36	TOB) 8156	MEXICO	3550.0	81.9	48.6	88.0	20R	58.3	37.5
47	SONORA 64-KLEIN RENDIDOR	ARGENTINA	3550.0	82.4	48.3	89.6	10MR	74.0	38.8
43	MEXICO 120	AUSTRALIA	3491.6	80.8	50.6	90.6	40R	56.3	37.7
50	LOCAL VARIETY		3436.6	79.0	54.0	91.6	40R	75.0	30.8

12	FATC ARGENTINO	ARGENTINA	3416.6	83.6	50.3	88.0	40R	68.6	32.1
7	36656-CJ542 X YAKTANA 54 A(H)	SUDAN	3391.6	79.2	51.0	91.0	40R	79.6	42.0
15	ZAPEEZI	RHODESIA	3383.3	82.5	51.0	90.0	40R	73.0	33.2
29	LUNDI	RHODESIA	3325.0	79.0	48.0	87.0	20MR	57.3	36.8
34	CAJEME 71 =(BLUEBIRD # 4)	MEXICO	3301.6	79.8	53.0	88.3	00	62.3	47.1
39	HAZERA 2152	ISRAEL	3300.0	79.9	51.6	90.6	20R	68.6	40.6
17	SYRIMEX	SYRIA	3225.0	82.0	50.3	90.6	10S	79.3	40.3
37	ET 2288	TUNISIA	3191.6	81.9	47.6	90.0	TMS	71.0	35.2
38	LERMA ROJO 64A	MEXICO	3191.6	82.4	49.0	87.0	TMR	80.0	42.1
11	CHENAB 70	PAKISTAN	3158.3	81.2	48.3	89.0	10R	67.6	38.4
23	SARIC 70 =(BLUEBIRD # 3)	MEXICO	3125.0	79.6	52.3	88.3	20R	57.0	44.9
27	INIA 66	MEXICO	3058.3	82.7	47.3	85.3	40MR	68.6	40.7
41	SAFED LERMA	INDIA	3050.0	80.6	50.3	88.6	20R	76.6	52.8
5	BONZA 55	COLOMBIA	2998.3	80.2	53.6	90.6	00	92.6	34.4
4	CARAZINHO	BRAZIL	2895.0	79.7	54.3	91.3	00	90.6	32.6
20	VICTOR 1	ITALY	2753.3	78.1	54.3	90.3	TS	58.0	32.3
35	SELKIRK	CANADA	2738.3	73.5	53.0	90.3	00	104.3	38.5
6	PIAPCNTES	ARGENTINA	2666.6	82.3	53.0	91.0	00	97.6	37.3
3	(TZPP-SON 64) (LR64A-TZPP X ANE3)	MEXICO	2608.3	82.7	49.6	89.0	00	73.0	37.7
19	C-306	INDIA	2516.6	81.2	48.3	91.3	TS	88.3	42.0
25	IASSEL	BRAZIL	2486.6	80.4	54.0	90.6	20S	114.0	35.4
13	SON64 X TZFF-NAINARI 60 (B)	ARGENTINA	2475.0	78.5	48.0	90.6	40R	65.3	40.2
10	GABOTO	ARGENTINA	2475.0	81.7	53.3	91.3	20R	100.0	33.5
21	CHRIS	USA	2426.6	80.3	52.0	91.3	10R	103.6	31.3
30	CRESPO 63	COLOMBIA	2396.6	82.8	51.0	90.3	20MR	91.0	38.8
24	PUELQUEN	CHILE	2318.3	81.2	53.0	91.0	40R	92.0	36.3
26	TURFIN 7	S. AFRICA	1916.6	77.3	53.0	90.3	TMS	52.0	46.0
		GRAND MEAN	3352.3	81.1	50.8	89.4	7.2	75.8	38.4
	STANDARD ERROR OF GRAND MEAN		41.9	0.0	0.0	0.0	0.6	0.2	0.1
	COEFFICIENT OF VARIATION		15.3%	1.1%	1.9%	1.1%	102.8%	4.7%	5.5%
	LSD VARIETY MEANS 5 PC		1027.8	1.8	1.9	2.0	14.8	7.2	4.2

CORRELATIONS

YIELD	KG/HA						
TEST	WEIGHT	0.25					
DAYS TO	FLOWER	-0.21	-0.27				
DAYS TO	MATURITY	-0.35**	-0.07	0.55**			
LEAF	RUST	0.27	-0.07	-0.19	-0.21		
HEIGHT	CM.	-0.25	0.08	0.25	0.36**	0.04	
1000 GRN WGT	GRMS	-0.04	-0.15	-0.31*	-0.27	-0.01	-0.29*

* SIGNIFICANT AT THE 5 LEVEL ** SIGNIFICANT AT THE 1 LEVEL

TABLE 32 EUROPE YUGOSLAVIA

BOTINEC
COOPERATORS DR. ZDRAVKO MARTINIC

LATITUDE 045 45'N DATE PLANTED 04/12/71
LONGITUDE 015 56'E DATE HARVESTED 07/19/71
ELEVATION +00116 M.ABOVE S... AMOUNT OF MOISTURE 0256 MM

LOCAL VARIETY MARA. LATE SEEDING. UNFAVORABLE CLIMATIC CONDITIO
DISEASE DEVELOPMENT MASKED BY INSECTS. SERIOUS ATTACK OF LEMA M

VARIETY NUMBER	VARIETY OR CROSS	ORIGIN	YIELD KG/HA	TEST WEIGHT	DAY FL
25	IASSUL	BRAZIL	1955.3	76.5	
24	FLELQUEN	CHILE	1895.8	77.8	
30	CRESPO 63	COLOMBIA	1873.1	77.3	
40	TCEARI 66	MEXICO	1844.2	81.6	
2	PITIC 62	MEXICO	1822.0	73.7	
28	TIPCALEN	AUSTRALIA	1744.2	75.2	
21	CHRIS	USA	1744.2	79.1	
9	SON 64A X TZPP-NAINARI 60 (C)	ARGENTINA	1710.9	79.8	
7	36896-CJ542 X YAKTANA 54 A(H)	SUDAN	1610.9	75.9	
41	SAFED LERMA	INDIA	1610.9	77.0	
37	ET 2288	TUNISIA	1577.6	77.9	
13	SON64 X TZPP-NAINARI 60 (B)	ARGENTINA	1570.9	76.5	
17	SYRIMEX	SYRIA	1566.5	79.1	
46	PALMIRA 1	COLOMBIA	1544.2	74.0	
12	PATC ARGENTINO	ARGENTINA	1544.2	80.6	
47	SONORA 64-KLEIN READIDOR	ARGENTINA	1533.1	78.5	
42	YECORA 70 =(BLUEBIRD # 2)	MEXICO	1522.0	77.1	
10	GABOTO	ARGENTINA	1522.0	77.0	
31	POTAM 70	MEXICO	1522.0	76.3	
1	NAINARI 60	MEXICO	1473.1	73.7	
32	CHHOTI LERMA	INDIA	1466.5	79.7	
22	LERMA ROJO 64 X N10B X ANE3	SUDAN	1455.4	77.8	
33	SONALIKA	INDIA	1438.7	77.0	
49	BUCK MANANTIAL	ARGENTINA	1433.1	78.0	
27	INIA 66	MEXICO	1422.0	80.0	
34	CAJEME 71 =(BLUEBIRD # 4)	MEXICO	1399.8	76.7	
36	TOE X 8156	MEXICO	1377.6	79.5	
15	ZAMBEZI	RHODESIA	1366.5	77.7	
8	FENJAMO 62	MEXICO	1366.5	76.5	
45	NURI 70 =(BLUEBIRD # 1)	MEXICO	1366.5	78.5	
48	UP 301	INDIA	1355.4	76.3	
39	HAZERA 2152	ISRAEL	1333.1	73.8	
35	SELKIRK	CANADA	1313.2	74.6	
38	LERMA ROJO 64A	MEXICO	1310.9	76.3	
44	BT 2281	TUNISIA	1310.9	76.8	
23	SAFIC 70 =(BLUEBIRD # 3)	MEXICO	1310.9	76.5	
6	PIAMONTES	ARGENTINA	1299.8	78.9	
3	(TZPP-SON 64) (LR64A-TZPP X ANE3)	MEXICO	1288.7	78.5	
5	ECUZA 55	COLOMBIA	1288.7	72.6	
14	SIETE CERROS 66	MEXICO	1288.7	77.1	
18	RAFC 63	COLOMBIA	1255.4	75.8	
16	GIZA 155	EGYPT	1233.2	75.3	
4	CARAZINHO	BRAZIL	1233.2	75.7	
43	MEXICO 120	AUSTRALIA	1222.0	77.8	
26	TURPIN 7	S. AFRICA	1210.9	72.7	
11	CHENAB 70	PAKISTAN	1088.7	50.7	
29	LUNDI	RHODESIA	1066.5	75.7	
20	VICTOR 1	ITALY	955.4	72.2	
50	LOCAL VARIETY		577.7	45.7	
19	C-306	INDIA	555.4	51.4	
		GRAND MEAN	1415.6	75.2	
		STANDARD ERROR OF GRAND MEAN	18.6	0.8	
		COEFFICIENT OF VARIATION	16.0%	14.0%	
		LSD VARIETY MEANS 5 PC	455.5	21.1	

CORRELATIONS

YIELD	KG/HA		
TEST	WEIGHT	0.67**	
DAYS TO	FLOWER	-0.15	-0.22
DAYS TO	MATURITY	-0.28*	-0.33*
LEAF	RUST	-0.43**	-0.22
STEM	RUST	-0.56**	-0.55**
HEIGHT	CM.	0.40**	0.06
LODGING		0.00	0.00
1000 GRN	WGT GRMS	0.28*	0.26
MILDEW		-0.36**	-0.14
HEAD	DMAGE	-0.36**	-0.51**

* SIGNIFICANT AT THE 5 LEVEL ** SIGNIFICANT AT TH

ZAGREB

NITROGEN 126.0 KG/HA
PHOSPHORUS 032.0 KG/HA
POTASSIUM 050.0 KG/HA

ANOVA.

TO ER	DAYS TO MATURITY	LEAF RUST	STEM RUST	HEIGHT CM.	LODGING	1000 GRN WGT GRMS	POWDERY MILDEW	HEAD DAMAGE
.3	95.0	0	0	91.3	1.5	40.4	50.0	36.6
.6	94.0	0	0	72.0	1	41.7	53.3	40.0
.0	95.6	30MS	0	77.3	1.5	42.4	66.6	26.6
.3	94.0	0	0	70.6	0	42.4	43.3	23.3
.0	55.6	80S	1	71.0	0	38.1	25.6	30.0
.0	94.3	0	0	57.0	0	41.4	26.6	20.0
.3	95.6	0	0	77.6	1.5	35.0	53.3	33.3
.6	94.6	5MR	2	68.6	0	34.9	46.6	23.3
.6	95.6	10MR	0	65.3	0	46.0	50.0	26.6
.0	94.6	30MS	0	63.3	1	47.9	76.6	23.3
.6	94.0	0	1.5	68.3	1	41.0	60.0	20.0
.6	94.6	5R	1.5	58.3	0	42.1	53.3	23.3
.3	94.6	80MS	0	65.0	1	41.5	60.0	23.3
.0	90.6	60MS	1	78.0	1.5	49.4	80.0	20.0
.3	94.0	30MS	1.5	62.3	0	36.5	73.3	20.0
.3	94.3	0	1	54.6	0	40.5	50.0	23.3
.3	92.3	0	0	51.0	0	46.5	60.0	20.0
.0	96.6	0	2.5	76.6	1	34.9	53.3	33.3
.0	92.6	0	1	64.3	0	49.3	53.3	20.0
.6	95.3	20MR	1.5	63.6	0	44.2	56.6	33.3
.0	96.3	40MS	0	61.6	0	37.4	63.0	23.3
.0	95.3	90S	2	58.6	0	35.8	53.3	26.6
.0	96.6	0	0	62.6	0	54.8	53.3	20.0
.6	96.3	10MR	5	70.0	0	34.9	56.6	23.3
.0	92.6	10MR	0	60.6	0	44.2	60.0	20.0
.6	94.6	0	0	53.0	0	49.4	60.0	20.0
.0	93.3	100S	1	51.0	0	39.7	70.0	30.0
.0	97.0	20MR	1	58.6	0	35.4	70.0	20.0
.6	94.3	70MR	1.5	59.6	0	40.5	73.3	23.3
.0	94.0	0	1.5	61.0	0	42.9	70.0	23.3
.0	94.0	20MR	0	47.0	0	47.1	66.6	20.0
.6	93.6	80S	1	59.6	0	40.1	66.6	26.6
.3	93.0	80S	0	78.0	1	34.9	66.6	40.0
.6	92.6	80S	0	65.0	1.5	43.2	80.0	23.3
.3	94.3	30MR	0	59.3	0	39.0	53.3	20.0
.6	93.6	0	1	50.0	0	47.6	60.0	20.0
.3	95.0	50MS	1	75.0	1	38.8	46.6	33.3
.6	95.0	5R	1.5	55.3	0	39.1	80.0	26.6
.6	96.0	70MS	1	76.0	1	34.3	36.6	40.0
.0	95.6	100S	1.5	62.6	0	34.1	35.6	20.0
.0	92.3	100S	0	77.3	1.5	39.0	56.6	23.3
.0	95.6	60MS	1	70.6	1	41.3	66.6	26.6
.6	96.3	5R	3	78.3	1	38.9	73.3	33.3
.3	96.6	40MS	1	43.0	0	40.9	80.0	23.3
.3	96.6	20MR	3.5	44.3	0	49.2	80.0	23.3
.0	94.3	40MS	2	67.3	0	39.1	73.3	23.3
.0	93.5	100.0	40.0	51.0	0.0	37.9	40.0	25.0
.3	97.3	80S	1	46.6	0	31.3	66.6	56.6
.3	99.0	60MS	5	51.6	0	24.1	56.6	76.6
.3	96.3	80MS	5	67.3	0	41.3	76.6	30.0
.2	94.7	36.8	23.0	63.8		40.7	59.8	27.2
.0	0.0	1.2	0.7	0.3		0.1	0.5	0.4
.2%	0.9%	39.9%	38.6%	6.4%		3.0%	11.2%	19.4%
.2	1.8	29.4	17.8	8.2		2.4	13.4	10.6

.58**							
.20	-0.07						
.25	0.48**	0.02					
.15	-0.06	-0.01	-0.05				
.00	0.00	0.00	0.00	0.00			
.56**	-0.44**	-0.36**	-0.36**	-0.13	0.00		
.19	-0.12	0.31	0.10	-0.22	0.00	0.20	
.70**	0.51**	0.23	0.30*	0.08	0.00	-0.61**	-0.08

LEVEL

TABLE 33 MESOAMERICA GUATEMALA

ESTACION EXPERIMENTAL LABOR OVALLE.
COOPERATORS ASTOLFO FUNAGALLI, ET AL.

LATITUDE 014 52'N DATE PLANTED 06/27/71
LONGITUDE 091 30' W DATE HARVESTED 11/29/71
ELEVATION +02407 M.ABOVE S.L. AMOUNT OF MOISTURE 0698 MM

LOCAL VARIETY NOT IDENTIFIED. HEAVY ATTACK OF APHIDS DURING SEPTEMBER AND THE BEGINNING OF OCTOBER.

VARIETY NUMBER	VARIETY OR CROSS	ORIGIN	YIELD KG/HA	DAYS TO FLOWER	DAYS TO MATURITY
27	INIA 66	MEXICO	4006.0	52.3	138.
31	ICTAM 70	MEXICO	3737.0	49.0	139.
8	BENJAMIN 62	MEXICO	3667.0	60.0	141.
47	SONORA 64-KLEIN RENDIDOR	ARGENTINA	3653.0	57.6	143.
30	CRESPO 63	COLOMBIA	3619.0	61.3	145.
46	PALMIRA 1	COLOMBIA	3576.0	55.3	131.
9	SCN 64A X TZPP-NAINARI 60 (C)	ARGENTINA	3481.0	58.6	141.
41	SAFED LERMA	INDIA	3445.0	65.3	140.
12	PETC ARGENTINO	ARGENTINA	3389.0	57.6	143.
16	GIZA 155	EGYPT	3342.0	60.3	141.
25	IASSUL	BRAZIL	3309.0	73.0	141.
34	CAJEME 71 =(BLLEBIFD # 4)	MEXICO	3308.0	72.6	143.
18	NARO 63	COLOMBIA	3265.0	53.0	131.
3	(TZPP-SCN 64) (LR64A-TZPP X ANE3)	MEXICO	3249.0	58.6	142.
49	BUCK MANANTIAL	ARGENTINA	3242.0	71.3	144.
45	NURI 70 =(BLLEBIRC # 1)	MEXICO	3239.0	62.6	134.
32	CHHOTI LERMA	INDIA	3227.0	63.6	143.
40	TCEAFI 66	MEXICO	3173.0	60.6	143.
33	SONALIKA	INDIA	3161.0	51.0	139.
38	LERMA POJO 64A	MEXICO	3159.0	57.3	142.
1	NAINARI 60	MEXICO	3142.0	71.3	146.
39	HAZERA 2152	ISRAEL	3125.0	64.6	141.
37	BT 2288	TUNISIA	3071.0	56.3	142.
28	TINGALEN	AUSTRALIA	3004.0	69.3	140.
23	SAFIC 70 =(BLLBEIFC # 3)	MEXICO	2969.0	73.0	144.
50	LOCAL VARIETY		2960.0	77.6	154.
21	CHRIS	USA	2912.0	69.3	141.
42	NECORA 70 =(BLLEBIFD # 2)	MEXICO	2868.0	54.0	141.
17	SYRIMEX	SYRIA	2805.0	60.0	142.
24	HLELGLEN	CHILE	2765.0	64.0	139.
11	CHENAB 70	PAKISTAN	2722.0	59.0	140.
2	FITIC 62	MEXICO	2633.0	70.3	144.
7	36896-CJ542 > YAKTANA 54 A(H)	SUDAN	2519.0	56.0	142.
36	TCE X 8156	MEXICO	2473.0	59.0	143.
44	BT 2281	TUNISIA	2412.0	56.0	144.
22	LERMA POJO 64 X NIC8 X ANE3	SUDAN	2320.0	66.3	144.
5	ECUZA 55	COLOMBIA	2299.0	74.3	145.
13	SON64 X TZPP-NAINARI 60 (B)	ARGENTINA	2266.0	58.6	142.
20	VICTOR 1	ITALY	2213.0	84.0	145.
6	FIAPCANTES	ARGENTINA	2205.0	77.6	146.
48	UP 301	INDIA	2088.0	63.0	141.
14	SIETE CERROS 66	MEXICO	2039.0	63.3	144.
4	CARAZINHO	BRAZIL	2010.0	82.0	146.
35	SELKIRK	CANADA	1990.0	74.6	142.
10	GABOTO	ARGENTINA	1957.0	75.3	143.
26	TURFIN 7	S. AFRICA	1778.0	67.6	143.
15	ZAMBEZI	RHODESIA	1760.0	59.6	143.
43	MEXICO 120	AUSTRALIA	1702.0	73.3	143.
29	ILACI	RHODESIA	1546.0	57.6	133.
19	C-306	INDIA	1308.0	67.3	139.
		GRAND MEAN	2802.1	63.9	142.
		STANDARD ERROR OF GRAND MEAN	34.9	0.2	0.
		COEFFICIENT OF VARIATION	19.2%	4.3%	1.
		LSD VARIETY MEANS 5 PC	855.7	5.5	4.

CORRELATIONS

YIELD	KG/HA			
DAYS TO	FLOWER	-0.39**		
DAYS TO MATURITY		-0.18	0.56**	
STRIPE	RUST	-0.17	-0.12	-0.
LEAF	RUST	0.01	-0.14	-0.
STEM	RUST	-0.16	0.32*	0.
HEIGHT	CM.	0.04	0.41**	0.
LODGING		-0.11	0.48**	0.
SHATRNG		-0.09	0.43**	0.
1000 GRN	WGT GRMS	0.47**	-0.10	-0.
SEPTORIA	TRITICI	-0.03	-0.14	0.
SEPTORIA	NODORUM	-0.50**	-0.09	-0.

* SIGNIFICANT AT THE 5 LEVEL ** SIGNIFICANT AT THE 1

QUEZALTENANGO

OGEN 089.0 KG/HA
PHORUS 072.0 KG/HA
SSIUM 000.0 KG/HA

STRIPE RUST	LEAF RUST	STEM RUST	HEIGHT CM.	LODGING	SHATTNG	1000 GRN WGT GRMS	SEPTORIA TRITICI	SEPTORIA NODORUM
20MS	0	0	95.0	0.0	0.0	37.0	8.3	26.0
20MS	0	0	81.6	0.0	0.0	31.5	13.3	27.3
20MS	0	0	100.0	3.3	0.0	26.5	10.0	18.6
20MS	0	0	98.3	0.0	5.0	25.5	8.3	30.0
TRR	0	0	111.6	40.0	80.0	27.0	10.0	21.3
TRS	0	0	108.3	56.6	80.0	39.0	8.3	6.0
60MS	0	0	96.6	0.0	0.0	20.0	13.3	40.0
20MS	0	0	103.3	70.0	90.0	30.5	8.3	12.0
20MS	0	TRR	88.3	26.6	0.0	23.0	7.5	29.0
10MR	0	0	111.6	6.6	5.0	36.0	5.0	30.6
10MS	0	30MR	148.3	90.0	80.0	40.0	5.0	5.3
10MR	0	0	83.3	0.0	0.0	27.0	8.3	30.6
20MS	10MS	0	106.6	26.6	10.0	24.0	10.0	5.3
20S	0	0	93.3	15.0	30.0	25.0	6.6	21.3
20MS	0	0	115.0	53.3	40.0	29.0	13.3	4.6
20MS	0	0	91.6	1.6	0.0	22.5	13.3	10.6
30S	0	0	96.6	0.0	0.0	27.5	6.6	10.6
TRR	0	0	98.3	13.3	30.0	26.0	10.0	19.6
10MS	0	0	98.3	1.6	0.0	38.5	20.0	19.3
10MS	0	0	96.6	70.0	80.0	32.0	5.0	12.0
30MS	0	0	116.6	16.6	0.0	30.0	8.3	52.0
10S	10MR	20MR	98.3	3.3	0.0	25.0	11.6	15.3
10MS	0	0	96.6	1.6	0.0	26.5	13.3	44.0
20MS	0	0	101.6	80.0	90.0	25.5	10.0	26.6
10MS	0	0	78.3	0.0	0.0	27.5	13.3	45.3
100-S	0	0	108.3	16.6	15.0	29.5	40.0	13.3
10MS	0	0	141.6	96.6	100.0	25.0	5.0	9.3
30MS	0	0	70.0	0.0	0.0	25.5	10.0	66.6
20MS	0	0	95.0	1.6	5.0	27.0	13.3	34.6
20MS	0	0	111.6	20.0	40.0	26.5	20.0	55.3
40MS	20MS	0	100.0	0.0	0.0	21.0	10.0	40.6
20MS	0	80MS	105.0	43.3	40.0	19.0	8.3	46.0
60S	0	0	106.6	0.0	0.0	25.0	6.6	33.3
20MS	0	0	78.3	10.0	0.0	21.5	10.0	47.3
TPR	0	0	88.3	3.3	0.0	29.0	6.6	20.0
10MS	0	100S	81.6	0.0	0.0	17.0	8.3	56.6
TRS	0	0	135.0	91.6	100.0	22.5	5.0	34.6
30MS	0	0	90.0	6.6	0.0	30.0	16.6	37.3
60S	0	100S	85.0	1.6	0.0	24.0	5.0	44.0
20MS	0	0	133.3	86.6	100.0	28.0	5.0	4.6
20MS	0	0	61.6	0.0	0.0	22.0	16.6	80.0
10MS	0	0	86.6	0.0	0.0	15.5	10.0	47.3
TRS	0	0	140.0	86.6	90.0	33.0	0.0	4.0
TRR	0	0	138.3	70.0	90.0	29.0	6.6	13.3
80S	10R	10R	130.0	81.6	80.0	23.0	5.0	21.3
30S	0	0	61.6	0.0	0.0	21.0	10.0	70.0
40S	0	0	83.3	0.0	0.0	16.0	23.3	66.6
20MS	TRR	50MS	68.3	0.0	0.0	20.5	5.0	70.0
40MS	0	0	76.6	0.0	0.0	24.5	16.6	93.3
20MS	0	0	130.0	73.3	90.0	24.5	15.0	34.6
17.2	0.5	4.3	100.4	46.3	21.1	26.4	10.7	32.1
1.0	0.0	1.1	0.3	1.3			0.4	1.8
76.8%	184.0%	313.7%	4.3%	62.9%			46.3%	71.8%
26.4	1.9	27.4	8.6	31.8			9.9	46.2

0.07							
-0.07	-0.07						
-0.28*	0.07	-0.14					
-0.24	-0.05	-0.07	0.79				
-0.28*	-0.09	-0.11	0.75	C.96**			
-0.24	-0.15	-0.30*	0.36	0.24	0.25		
0.43**	-0.03	-0.15	-0.24	-0.34*	-0.30*	-0.05	
0.30*	-0.10	0.19	-0.63	-C.50**	-0.48**	-0.51**	0.22

TABLE 34 MESOAMERICA MEXICO SONORA CIANO FIRST DATE

CENTRO DE INVESTIGACIONES AGRICOLAS DEL NOROESTE
COOPERATORS CIANO AND CIMMYT WHEAT STAFF.

LATITUDE	027 20' N	DATE PLANTED	11/07/70	NITROGEN	080.0 KG/HA
LONGITUDE	109 54' W	DATE HARVESTED	--/--/--	PHOSPHORUS	018.0 KG/HA
ELEVATION	+00040 M. ABOVE S.L.	AMOUNT OF MOISTURE	---- MM	POTASSIUM	---.- KG/HA

LOCAL VARIETY NOT IDENTIFIED. NO STEM RUST AND VERY LITTLE STRIPE RUST.

VARIETY NUMBER	VARIETY OR CROSS	ORIGIN	YIELD KG/HA	DAYS TO FLOWER	LEAF RUST	HEIGHT CM.	LODGING
50	LOCAL VARIETY		10111.9	95.0	0	93.3	3.3
11	CHENAB 70	PAKISTAN	9431.3	89.6	20MR-MS	113.3	16.6
22	LERMA ROJO 64 X N108 X ANE3	SUDAN	9417.4	88.6	80MS-S	93.3	6.6
34	CAJEME 71 =(BLUEBIRD # 4)	MEXICO	9028.4	94.3	5R	86.6	10.0
23	SARIC 70 =(BLUEBIRD # 3)	MEXICO	8986.8	90.6	0	85.0	0.0
42	YECORA 70 =(BLUEBIRD # 2)	MEXICO	8889.5	82.6	0	73.3	0.0
8	BENJAMIN 62	MEXICO	8417.3	79.3	10S	100.0	60.0
14	SIETE CERROS 66	MEXICO	8306.2	82.6	20MS-S	88.3	10.0
32	CHHOTI LERMA	INDIA	8264.5	83.6	40MS-S	103.3	20.0
2	PITIC 62	MEXICO	8057.8	83.3	80S	106.6	63.3
26	TURPIN 7	S. AFRICA	8042.2	87.3	10MR	73.3	0.0
41	SAFED LERMA	INDIA	7945.0	86.0	60MS-S	106.6	86.6
43	MEXICO 120	AUSTRALIA	7917.2	77.3	20S-MS	65.0	0.0
45	NURI 70 =(BLUEBIRD # 1)	MEXICO	7750.6	80.3	5R	101.6	13.3
20	VICTOR 1	ITALY	7583.9	101.3	20MS	95.0	20.0
47	SONORA 64-KLEIN RENDIDOR	ARGENTINA	7528.3	78.0	10MR	93.3	23.3
7	36896-CJ542 X YAKTANA 54 A(H)	SUDAN	7472.8	77.3	40MR-S	98.3	20.0
17	SYRIMEX	SYRIA	7472.8	83.0	80S	103.3	13.3
44	ET 2281	TUNISIA	7458.9	76.0	30MS	93.3	10.0
36	TOE X 8156	MEXICO	7458.9	79.3	10MR	86.6	10.0
12	PATO ARGENTINO	ARGENTINA	7458.9	85.3	TRR	96.6	33.3
9	SCA 64A X T2FF-RAIMARI 60 (C)	ARGENTINA	7445.0	77.0	TRR	95.0	23.3
[illegible]	[illegible]	[illegible]	7431.1	80.3	40MS	86.6	10.0

9	[illegible]	ARGENTINA	7445.0	77.0	TRR	95.0	23.3
12	[illegible]	RHODESIA	7421.1	80.3	60MS	86.6	10.0
38	LERMA POJO 64A	MEXICO	7389.4	78.6	80S	108.3	76.6
13	SON64 X TZPP-NAINARI 60 (B)	ARGENTINA	7375.5	88.3	TRR	95.0	6.6
40	TCEARI 66	MEXICO	7250.5	77.6	TRR	93.3	23.3
31	POTAR 70	MEXICO	7167.2	76.3	50MS	83.3	10.0
48	UP 301	INDIA	7125.5	81.0	TRMS	68.3	0.0
1	NAINARI 60	MEXICO	7070.0	90.6	20MS-S	125.0	66.6
39	HAZERA 2152	ISRAEL	7028.3	77.6	60S	88.3	26.6
29	LUNDI ■	RHODESIA	6931.1	78.0	5R	90.0	10.0
33	SONALIKA	INDIA	6917.2	75.6	20MS	91.6	46.6
16	GIZA 155	EGYPT	6750.5	81.0	10S-MS	115.0	80.0
37	ET 2288	TUNISIA	6681.0	76.6	0	93.3	20.0
3	(TZPP-SON 64) (LR64A-TZPP X AVE3)	MEXICO	6681.0	81.3	5S	100.0	56.6
24	HUELGUEN	CHILE	6486.6	83.3	80S	118.3	73.3
18	RAFC 63	COLOMBIA	6472.7	76.0	60MS-S	106.6	66.6
27	INIA 66	MEXICO	6306.0	76.6	100S	93.3	13.3
28	TIMGALEN	AUSTRALIA	6278.2	86.3	0	100.0	85.6
49	BUCK MANANTIAL	ARGENTINA	6097.7	117.3	0	131.6	56.6
30	CRESFC 63	COLOMBIA	6083.8	79.3	20MS	120.0	83.3
46	PALMIRA 1	COLOMBIA	5986.5	87.0	10MS	126.6	76.6
19	C-306	INDIA	5944.9	88.3	10S	123.3	90.0
4	CARAZINHO	BRAZIL	5792.1	100.6	TRMR	118.3	80.0
5	BONZA 55	COLOMBIA	5430.9	88.3	20MS	130.0	73.3
10	CAECTC	ARGENTINA	5361.5	93.6	0	120.0	83.3
6	PIAMONTES	ARGENTINA	5208.7	96.3	10MR	126.6	83.3
25	IASSUL	BRAZIL	4500.3	96.0	40S	120.0	90.0
21	CHRIS	USA	4403.1	88.0	5R	125.0	90.0
35	SELKIRK	CANADA	4055.8	122.3	1MS	135.0	70.0
	GRAND MEAN		7133.8	85.6	16.8	101.6	39.8
	STANDARD ERROR OF GRAND MEAN		46.1	0.2	1.3	0.4	0.6
	COEFFICIENT OF VARIATION		7.9%	3.9%	98.3%	5.2%	20.9%
	LSD VARIETY MEANS 5 PC		1129.5	6.8	33.1	10.5	16.7

CORRELATIONS

YIELD	KG/HA				
DAYS TO	FLOWER	-0.29*			
LEAF	RUST	0.14	-0.37**		
HEIGHT	CM.	-0.63**	0.52**	-0.05	
LODGING		-0.68**	0.28*	-0.03	0.81**

* SIGNIFICANT AT THE 5 LEVEL ** SIGNIFICANT AT THE 1 LEVEL

TABLE 35 MESOAMERICA ME

CENTRO DE INVESTIGACIONES AGRICOLAS DEL NOROESTE.
COOPERATORS CIANO AND CIMMYT WHEAT STAFF.

LATITUDE 027 20' N DATE PLANTED
LONGITUDE 109 54' W DATE HARVESTED
ELEVATION +00040 M.ABOVE S.L. AMOUNT OF MOISTUR

LOCAL VARIETY NOT IDENTIFIED. HOT WINDS IN LATE M

VARIETY NUMBER	VARIETY OR CROSS	ORIGIN	YIELD KG/HA
42	YECORA 70 =(BLUEBIRD # 2)	MEXICO	8417.3
32	CHHOTI LERMA	INDIA	7972.8
14	SIETE CERROS 66	MEXICO	7972.8
22	LERMA ROJO 64 X N10B X ANE3	SUDAN	7931.1
11	CHENAB 70	PAKISTAN	7792.2
8	PEP.APC 62	MEXICO	7764.5
15	ZAMBEZI	RHODESIA	7708.9
38	LERMA ROJO 64A	MEXICO	7681.1
31	POTAM 70	MEXICO	7653.3
43	MEXICO 120	AUSTRALIA	7611.7
34	CAJEME 71 =(BLUEBIRD # 4)	MEXICO	7611.7
39	MAZURA 2152	ISRAEL	7528.3
27	INIA 66	MEXICO	7417.2
33	SONALIKA	INDIA	7403.3
17	SYRIMEX	SYRIA	7361.6
36	108) E156	MEXICO	7292.2
7	36896-CJ542 X YAKTANA 54 A(H)	SUDAN	7222.7
41	SAFED LERMA	INDIA	7111.6
23	SARIC 70 =(BLUEBIRD # 3)	MEXICO	7097.7
47	SONORA 64-KLEIN RENDIDOR	ARGENTINA	7083.8
45	NURI 70 =(BLUEBIRD # 1)	MEXICO	7070.0
26	TILFIN 7	S. AFRICA	7056.1
13	SON64 X TZFF-NAINARI 60 (B)	ARGENTINA	7056.1
40	TOBARI 66	MEXICO	6819.9
20	VICTOR 1	ITALY	6792.2
2	FITIC 62	MEXICO	6778.3
1	NAINARI 60	MEXICO	6750.5
16	GIZA 155	EGYPT	6736.6
12	FATC ARGENTINO	ARGENTINA	6736.6
24	HUELGUEN	CHILE	6625.5
48	LP 301	INDIA	6597.7
9	SON 64A X TZPP-NAINARI 60 (C)	ARGENTINA	6542.1
30	CRESPO 63	COLOMBIA	6417.1
3	(TZPP-SON 64) (LR64A-TZPP X ANE3)	MEXICO	6347.7
37	ET 2288	TUNISIA	6069.9
46	FAIRIRA 1	COLOMBIA	6065.9
44	ET 2281	TUNISIA	6056.0
19	C-306	INDIA	5944.9
5	ECUA 55	COLOMBIA	5903.2
29	LUNDI	RHODESIA	5819.9
28	TINGALEN	AUSTRALIA	5806.0
18	NAPO 63	COLOMBIA	5600.4
10	CABECO	ARGENTINA	5361.5
49	BUCK MANANTIAL	ARGENTINA	5111.5
6	PIAMONTES	ARGENTINA	5000.3
4	CAFAZINHO	BRAZIL	4611.4
21	CHRIS	USA	4375.3
35	SELKIRK	CANADA	3736.4
25	IASSUL	BRAZIL	3236.3
50	LOCAL VARIETY		-
		GRAND MEAN	6625.8
		STANDARD ERROR OF GRAND MEAN	65.7
		COEFFICIENT OF VARIATION	12.08
		LSD VARIETY MEANS 5 PC	1593.6

		CORR
YIELD	KG/HA	
TEST	WEIGHT	0.38
DAYS TO	FLOWER	0.24
LEAF	RUST	0.31
STEM	RUST	0.24
HEIGHT	CM.	-0.62
LODGING		-0.75
1000 GRN WGT	GRMS	0.32

* SIGNIFICANT AT THE 5 LEVEL ** SI

12/01/70 NITROGEN 150.0 KG/HA
--/--/-- PHOSPHORUS 035.0 KG/HA
---- MM POTASSIUM ---.- KG/HA

MARCH AND EARLY APRIL.

TEST HEIGHT	DAYS TO FLOWER	LEAF RUST	STEM RUST	HEIGHT CM.	LODGING	1000 GRN WGT GRMS
79.6	81.3	TRR	0	71.6	0.0	42.0
80.2	83.6	40S	TRR	95.0	0.0	34.0
79.9	85.6	40S	5S	91.6	0.0	41.0
82.0	91.6	30MS	10S	85.0	0.0	33.0
80.8	81.6	10S	TRS	98.3	0.0	47.0
80.2	80.6	10MS	5S	93.3	3.3	42.0
79.0	81.6	10MS	5S	88.3	0.0	44.0
80.6	83.0	80S	TRR	106.6	0.0	43.0
78.8	75.6	60MS	0	81.6	0.0	46.0
76.6	83.6	60S	20S	63.3	0.0	35.0
79.9	96.0	10MS	0	83.3	0.0	46.0
78.7	79.6	20MS	10S	90.0	0.0	45.0
82.5	77.0	80S	0	96.6	6.6	46.0
79.9	73.3	10S	TRMS	98.3	0.0	40.0
79.5	86.3	20S	5S	96.6	0.0	40.0
80.0	80.0	30MS	0	76.6	0.0	39.0
78.2	76.6	10MR	TRMS	96.6	0.0	46.0
79.8	86.3	10S	0	100.0	16.6	39.0
79.2	94.6	0	0	75.0	0.0	34.0
79.0	79.6	20S	0	93.3	0.0	41.0
81.6	82.3	60S	0	88.3	0.0	41.0
72.8	91.3	0	5S	65.0	0.0	39.0
76.0	84.6	TRMS	TRMS	93.3	0.0	42.0
80.8	78.6	0	0	95.0	0.0	40.0
78.2	0.0	10MR	20S	88.3	0.0	39.0
74.7	85.3	40S	10S	98.3	30.0	37.0
76.9	85.6	0	TRS	110.0	0.0	46.0
80.5	80.6	40S	0	121.6	13.3	47.0
79.9	89.0	0	0	88.3	0.0	32.0
80.1	87.0	10S	5MS	116.6	0.0	41.0
76.5	85.3	0	0	63.3	0.0	41.0
82.6	78.6	TRR	0	93.3	0.0	32.0
80.2	82.6	30S	5S	123.3	33.3	38.0
81.3	80.3	5S	0	91.6	0.0	38.0
81.0	75.3	TRMS	TRR	93.3	0.0	41.0
75.8	83.6	60MS	0	115.0	23.3	52.0
80.1	76.3	10S	0	83.3	0.0	40.0
82.3	83.6	TRMR	20S	115.0	63.3	50.0
77.8	92.0	20MR	0	121.6	40.0	33.0
77.8	78.6	30MS	0	76.6	0.0	40.0
78.1	87.0	0	0	93.3	6.6	37.0
78.5	77.3	50MS	0	118.3	13.3	39.0
79.6	99.0	TRR	0	133.3	66.6	33.0
79.6	0.0	5R	TRR	115.0	43.3	41.0
80.1	66.0	10MS	TRMR	121.6	53.3	37.0
78.5	99.3	10MR	0	126.6	63.3	41.0
79.1	93.0	10MR	TRMS	120.0	86.6	30.0
72.9	0.0	30S	0	120.0	36.6	34.0
74.1	93.6	5S	5S	123.3	53.3	39.0
-	-	-	-	-	-	-
79.0	78.7	16.0	3.3	97.8	13.3	39.9
0.0	0.6	1.1	0.4	0.4	0.9	
1.3%	10.6%	83.6%	124.5%	5.3%	83.9%	
2.0	16.7	26.8	8.2	10.4	22.3	

RELATIONS

**						
	0.17					
*	0.23	0.04				
	-0.08	-0.10	0.07			
**	0.00	-0.09	0.06	-0.20		
**	-0.18	-0.03	-0.13	-0.01	0.73**	
*	0.11	-0.00	0.20	-0.02	-0.02	-0.23

SIGNIFICANT AT THE 1 LEVEL

TABLE 36 MESOAMERICA MEXICO TOLUCA

DOÑA ROSA, TOLUCA.
COOPERATORS CIMMYT WHEAT STAFF.

LATITUDE	019 00'N	DATE PLANTED	06/15/70	NITROGEN	---.- KG/HA
LONGITUDE	100 00' W	DATE HARVESTED	11/04/70	PHOSPHORUS	---.- KG/HA
ELEVATION	+02675 M.ABOVE S.L.	AMOUNT OF MOISTURE	---- MM	POTASSIUM	---.- KG/HA

LOCAL VARIETY TANORI 71.

VARIETY NUMBER	VARIETY OR CROSS	ORIGIN	YIELD KG/HA	DAYS TO FLOWER	STRIPE RUST	LEAF RUST	HEIGHT CM.	LODGING
46	PALMIRA 1	COLOMBIA	7292.2	70.6	10MR	TMR	122.5	55.0
11	CHENAB 70	PAKISTAN	7139.4	71.6	20MS	20S	107.5	42.5
32	CHHOTI LERMA	INDIA	6694.9	77.3	10MR	5S	101.6	96.6
31	FCTAP 70	MEXICO	6528.2	66.6	20MR	5MS	91.6	8.3
50	LOCAL VARIETY		6194.9	70.0	20MR	30S	95.0	55.0
27	INIA 66	MEXICO	6181.0	65.0	20MR	60S	102.5	40.0
47	SONORA 64-KLEIN REMOLDOR	ARGENTINA	6000.4	70.3	5MR	5MR	105.0	36.6
34	CAJEME 71 =(BLUEBIRD # 4)	MEXICO	5917.1	82.6	TMR	5MS	91.6	66.6
33	SONALIKA	INDIA	5885.3	65.3	20MR	5MR	105.0	42.5
42	YECORA 70 =(BLUEBIRD # 2)	MEXICO	5861.5	73.3	2MS	TMR	80.0	11.6
30	CRESPO 63	COLOMBIA	5792.1	77.6	TR	50S	117.5	37.5
17	SYRIMEX	SYRIA	5681.0	75.3	10MS	20S	107.5	42.5
12	FATC ARGENTINO	ARGENTINA	5639.3	74.0	TMR	5MS	100.0	51.6
8	PENJAMO 62	MEXICO	5569.8	73.3	20MR	10S	108.3	86.6
18	NAPO 63	COLOMBIA	5542.1	69.3	5MR	20S	116.6	53.3
14	SIETE CERROS 66	MEXICO	5528.2	84.0	30MS	10MS	105.0	5.0
41	SAFEC LERMA	INDIA	5521.2	78.0	40.0	20.0	110.0	100.0
23	SAFIC 70 =(BLUEBIRD # 3)	MEXICO	5514.3	80.0	TMR	10MR	88.3	41.6
37	BT 2288	TUNISIA	5444.8	69.0	10MR	5MS	99.3	63.3
36	TCE X 8156	MEXICO	5375.4	73.0	5MR	TR	87.5	0.0
40	TOBARI 66	MEXICO	5305.9	74.0	0	TMR	103.3	50.0
44	ET 2281	TUNISIA	5305.9	71.0	5MR	30S	100.0	25.0
9	SON 64A X TZPP-NAINARI 60 (C)	ARGENTINA	5250.4	72.0	5MR	5MS	102.5	37.5

15	ZAMBEZI	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
38	LERMA RCJC 64A	MEXICO	4611.4	70.3	20MS	90S	107.9	100.0
45	NURI 7C =(BLUEBIRD # 1)	MEXICO	4472.5	72.3	20MS	TMR	98.3	13.3
22	LERMA RCJC 64 X N108 X ANE3	SUDAN	4444.7	88.3	10MS	30S	92.5	—
29	LUNDI	RHODESIA	4319.7	73.6	20MS	10S	81.6	—
16	GIZA 155	EGYPT	4264.2	74.0	TMR	20S	115.0	19.3
3	(TZPP-SON 64) (LR64A-TZPF X ANE3)	MEXICO	4250.3	75.6	5MR	5MS	92.5	72.5
49	BUCK MANANTIAL	ARGENTINA	3986.4	85.6	10MR	10MS-S	127.5	65.0
39	HAZERA 2152	ISRAEL	3986.4	77.0	20MR	10S	108.3	35.0
48	UP 301	INDIA	3916.9	58.6	10MS	TMR	71.6	0.0
24	HUELGUEN	CHILE	3736.4	84.3	5MR	10MS-S	118.3	15.0
13	SON64 X TZPP-NAINARI 60 (B)	ARGENTINA	3500.2	79.3	5MR	10MS-S	105.0	—
26	TUFFIN 7	S. AFRICA	3389.1	83.3	20MS	40S	71.6	—
25	IASSUL	BRAZIL	3278.0	91.0	10MS	30S	145.0	95.0
1	NAINARI 60	MEXICO	3208.5	83.0	30S	5MR-MS	112.5	0.0
7	36896-CJ542 X YAKTANA 54 A(H)	SUDAN	3041.9	74.3	10MR	5MR	115.0	2.3
28	TIPGALEN	AUSTRALIA	2861.3	84.0	10MR	TMR	106.6	53.3
5	BONZA 55	COLOMBIA	2736.3	87.6	10MR	10S	132.5	90.0
43	MEXICO 120	AUSTRALIA	2430.7	85.6	20MR	50S	71.6	0.0
19	C-306	INDIA	2305.7	78.3	90S	30S	125.0	57.5
21	CHRIS	USA	2291.8	81.3	TMR	5MS	128.3	95.0
20	VICTOR 1	ITALY	2166.8	102.0	10MR	5S	101.6	0.0
2	FITIC 62	MEXICO	2097.3	85.6	20MR	TMR	111.6	65.0
35	SELKIRK	CANADA	1708.4	91.6	20S	60S	132.5	90.0
10	CABOTO	ARGENTINA	1472.3	91.6	TR	5MS	138.3	90.0
6	PIAPCNTES	ARGENTINA	1138.9	90.3	5MR	TMS	130.0	80.0
4	CARAZINHO	BRAZIL	1020.9	100.0	10MR	5.0	132.5	93.3
		GRAND MEAN	4411.1	78.1	8.4	14.0	106.2	44.4
	STANDARD ERROR OF GRAND MEAN		58.2	0.3	0.3	0.8	0.3	2.5
	COEFFICIENT OF VARIATION		16.0%	5.7%	45.3%	72.3%	3.4%	64.4%
	LSD VARIETY MEANS 5 PC		1417.1	8.9	7.6	20.2	7.2	57.2

CORRELATIONS

YIELD	KG/HA					
DAYS TO	FLOWER	-0.71**				
STRIPE	RUST	-0.12	-0.02			
LEAF	RUST	0.03	0.03	0.10		
HEIGHT	CM.	-0.39**	0.44**	0.10	0.03	
LODGING		-0.16	0.21	0.20	0.05	0.63**

* SIGNIFICANT AT THE 5 LEVEL ** SIGNIFICANT AT THE 1 LEVEL

TABLE 37 MIDDLE EAST CYPRJS ATHIENOU

ATHIENOU.
COOPERATORS A. HADJICHRISTODOULOU AND L. DANIEL.

LATITUDE 033 30'N DATE PLANTED 12/19/70 NITROGEN ---.- KG/HA
LONGITUDE 035 03'E DATE HARVESTED --/--/-- PHOSPHORUS ---.- KG/HA
ELEVATION +00150 M.ABOVE S.L. AMOUNT OF MOISTURE 0296 MM POTASSIUM ---.- KG/HA

LOCAL VARIETY KYPEROUNDA. NO STEM RUST OR STRIPE RUST OCURRENCE. HEAVY INFESTATION OF APHIDS CONTROLLED BY B.H.C.

VARIETY NUMBER	VARIETY OR CROSS	ORIGIN	YIELD KG/HA	TEST WEIGHT	DAYS TO FLOWER	LEAF RUST	HEIGHT CM.	1000 GRN WGT GRMS	SEPTORIA SPP.
46	PALMIRA 1	COLOMBIA	3944.0	73.8	107.3	5R	108.3	38.1	60.0
15	ZAMBEZI	RHODESIA	3580.7	78.1	108.3	5R	83.3	33.6	60.0
45	NURI 70 =(ELUEBIRD # 1)	MEXICO	3506.3	79.1	107.3	5R	83.3	36.3	60.0
2	PITIC 62	MEXICO	3488.9	72.3	111.0	10MR	85.0	34.8	60.0
34	CAJEME 71 =(ELUEBIRD # 4)	MEXICO	3396.3	78.6	108.0	5R	63.3	42.3	70.0
49	BUCK MANANTIAL	ARGENTINA	3350.7	79.8	122.6	5R	101.6	29.5	15.0
38	LERMA ROJO 64A	MEXICO	3336.3	77.0	107.3	5R	91.6	35.8	80.0
14	SIETE CERROS 66	MEXICO	3290.7	77.1	113.3	5R	77.3	32.8	50.0
47	SONORA 64-KLEIN REMDIDOR	ARGENTINA	3223.0	75.5	106.3	5R	85.6	37.5	40.0
39	HAZERA 2152	ISRAEL	3083.0	73.5	106.0	5R	76.0	38.0	70.0
22	LERMA ROJO 64 X N10B X ANE3	SUDAN	3064.1	78.6	113.0	5R	73.3	34.0	40.0
50	LOCAL VARIETY		3044.1	79.6	116.3	15MR	104.0	41.6	30.0
44	BT 2281	TUNISIA	3027.4	77.5	105.3	5R	79.0	36.5	70.0
7	36896-CJ542 X YAKTANA 54 A(H)	SUDAN	3026.3	73.8	106.3	5R	87.0	40.1	60.0
18	NAPC 63	COLOMBIA	2997.4	74.5	107.3	5R	98.0	31.1	50.0
36	TOE X 8156	MEXICO	2961.9	78.5	107.3	5R	71.0	32.8	40.0
30	CRESPO 63	COLOMBIA	2927.4	78.3	107.6	5R	102.6	35.1	60.0
48	UP 301	INDIA	2920.8	78.0	108.6	5R	63.3	38.5	80.0
23	SARIC 70 =(ELUEBIRD # 3)	MEXICO	2913.0	76.8	106.3	5R	62.6	39.8	80.0
4	CARAZINHO	BRAZIL	2899.7	78.1	112.3	15MR	113.3	38.3	35.0
43	MEXICO 120	AUSTRALIA	2881.9	77.3	105.6	5R	60.3	38.3	60.0
31	POTAM 7C	MEXICO	2876.3	75.6	105.0	5R	75.0	37.8	70.0
32	CHHOTI LERMA	INDIA	2851.9	77.0	113.0	5R	85.0	32.8	80.0

[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	5R	89.0	35.3	80.0
33	SONALIKA	INDIA	2839.2	76.3	105.3	5R	79.3	43.0	70.0
25	IASSUL	BRAZIL	2821.9	75.5	114.3	5R	114.0	33.6	30.0
41	SAFEC LERMA	INDIA	2796.3	76.0	107.6	5R	84.3	37.3	50.0
24	PELEQUEN	CHILE	2739.7	75.6	113.0	10MR	101.0	30.1	40.0
40	TCEARI 66	MEXICO	2723.0	79.5	106.3	5R	83.3	36.0	40.0
35	SELKIRK	CANADA	2699.7	75.3	129.0	5R	117.3	30.8	30.0
12	PATO ARGENTINO	ARGENTINA	2690.8	78.0	112.5	10MR	82.6	30.5	30.0
29	LUNDI	RHODESIA	2659.7	75.5	107.0	5R	73.3	35.3	40.0
37	ET 228E	TUNISIA	2648.6	76.5	104.0	5R	81.3	34.6	50.0
20	VICTOR 1	ITALY	2645.2	75.6	117.3	10MR	72.0	32.6	30.0
16	GIZA 155	EGYPT	2644.1	75.6	108.6	5R	92.3	37.5	80.0
6	PIAMONTES	ARGENTINA	2641.9	79.0	116.6	10MR	100.0	32.8	30.0
8	FENJAMO 62	MEXICO	2639.7	75.6	108.3	5R	84.3	37.5	40.0
10	GABOTO	ARGENTINA	2606.4	78.5	113.3	10MR	106.0	30.6	30.0
27	INIA 66	MEXICO	2363.0	77.6	105.0	5R	79.3	37.1	40.0
9	SON 64A X TZPP-NAINARI 60 (C)	ARGENTINA	2349.7	77.8	105.6	5R	78.3	32.0	70.0
3	(TZPP-SON 64) (LR64A-TZPP X AVE3)	MEXICO	2308.6	79.5	109.0	10MR	82.6	32.8	60.0
5	BONZA 55	COLOMBIA	2289.7	74.3	109.6	5R	100.6	31.6	40.0
1	NAINARI 60	MEXICO	2287.5	75.5	107.6	5R	90.0	40.1	60.0
19	C-306	INDIA	2267.5	78.8	109.3	10MR	95.3	37.1	80.0
42	YECORA 70 =(BLUEBIRD # 2)	MEXICO	2259.7	76.1	106.6	5R	61.6	37.5	70.0
21	CHRIS	USA	2255.3	77.6	113.3	5R	105.6	29.1	40.0
26	TURPIN 7	S. AFRICA	2158.6	71.8	109.0	5R	58.0	34.8	90.0
11	CHENAB 70	PAKISTAN	2134.2	76.1	107.3	5R	80.3	38.1	70.0
28	TIPGALEN	AUSTRALIA	2095.3	75.0	110.6	10MR	75.0	32.6	60.0
		GRAND MEAN	2816.8	76.7	109.7	1.5	85.5	35.5	53.8
	STANDARD ERROR OF GRAND MEAN		58.3	0.1	0.1	0.0	0.4	0.1	
	COEFFICIENT OF VARIATION		25.3%	1.7%	1.7%	30.6%	5.2%	5.1%	
	LSD VARIETY MEANS 5 PC		1430.2	2.7	3.9	0.9	10.7	3.6	

CORRELATIONS

YIELD	KG/HA					
TEST	WEIGHT	0.05				
DAYS TO	FLOWER	0.01	0.13			
LEAF	RUST	-0.09	0.15	0.35*		
HEIGHT	CM.	0.09	0.06	0.51**	0.29*	
100C GRN WGT	GRMS	0.17	-0.04	-0.51**	-0.00	-0.32*
SEPTORIA	SPP.	-0.03	-0.25	-0.54**	-0.27*	-0.49**	0.42**

* SIGNIFICANT AT THE 5 LEVEL ** SIGNIFICANT AT THE 1 LEVEL

TABLE 38 MIDDLE EAST IRAN AHWAZ

AHWAZ EXPERIMENT STATION.
COOPERATORS D. DADAIN

LATITUDE	031 20'N	DATE PLANTED	01/15/71	NITROGEN	12.00 KG/HA
LONGITUDE	048 40'E	DATE HARVESTED	05/20/71	PHOSPHORUS	26.0- KG/HA
ELEVATION	+00020 M.ABOVE S.L.	AMOUNT OF MOISTURE	0660 MM	POTASSIUM	--.- KG/HA

LOCAL VARIETY SHOBH. INSECT: STEM BORER AND TOXOPTERA GRAMINIS.

VARIETY NUMBER	VARIETY OR CROSS	ORIGIN	YIELD KG/HA	DAYS TO FLOWER	DAYS TO MATURITY	HEIGHT CM.	LODGING	SHATTERING	1000 GRN WGT GRMS
22	LERMA ROJO 64 X N10B X ANE3	SUDAN	4482.8	85.5	120.0	80.0	0.0	0	27.0
38	LERMA ROJO 64A	MEXICO	4316.2	77.0	115.0	90.0	25.0	10	35.0
41	SAFED LERMA	INDIA	4249.5	79.0	118.0	90.0	0.0	0	31.0
9	SCN 64A X TZFF-NAINARI 60 (C)	ARGENTINA	4216.2	75.0	116.0	90.0	0.0	0	25.0
36	10B) E156	MEXICO	4166.2	77.0	116.0	75.0	0.0	0	30.0
45	NURI 70 =(ELUEBIRI # 1)	MEXICO	4044.0	77.0	115.0	90.0	0.0	0	31.0
31	POTAM 7C	MEXICO	3866.2	75.3	116.0	80.0	0.0	0	32.0
8	PENJAMO 62	MEXICO	3799.6	78.6	116.0	90.0	0.0	20	30.0
47	SONORA 64-KLEIN FERTIDOR	ARGENTINA	3744.0	76.0	114.0	90.0	0.0	0	31.0
7	3EESE-CJ542) YAKTANA 54 A(H)	SUDAN	3744.0	75.6	118.0	90.0	0.0	30	33.0
39	HAZERA 2152	ISRAEL	3688.5	78.6	116.0	80.0	0.0	20	27.0
33	SONALIKA	INDIA	3682.9	76.0	116.0	90.0	0.0	10	39.0
40	TOBARI 66	MEXICO	3677.4	76.6	116.0	85.0	0.0	0	28.0
15	ZAMBEZI	RHODESIA	3632.9	80.6	120.0	80.0	0.0	0	31.0
12	FATC ARGENTINO	ARGENTINA	3632.9	78.6	119.0	85.0	0.0	0	22.0
17	SYRIMEX	SYRIA	3599.6	82.0	119.5	90.0	0.0	20	34.0
43	MEXICO 120	AUSTRALIA	3599.6	82.0	118.0	65.0	0.0	10	30.0
11	CHENAB 70	PAKISTAN	3566.3	78.0	118.0	85.0	0.0	10	34.0
44	ET 2281	TUNISIA	3549.6	75.5	119.0	85.0	0.0	0	28.0
13	SCN64 X TZFF-NAINARI 60 (B)	ARGENTINA	3532.9	81.6	121.0	80.0	0.0	10	30.0
32	CHHOTI LERMA	INDIA	3510.7	80.6	119.0	85.0	0.0	0	36.0
29	LUNCI	RHODESIA	3499.6	78.3	117.0	75.0	0.0	30	37.0
26	TURPIN 7	S. AFRICA	3488.5	82.6	121.0	60.0	0.0	0	31.0
14	SIETE CERROS 66	MEXICO	3477.4	81.0	121.0	80.0	0.0	0	27.0

27	IAIA 66	MEXICO	3349.6	75.5	113.0	85.0	0.0	0	37.0
34	CAJEME 71 =(BLUEBIRD # 4)	MEXICO	3332.9	79.3	116.6	80.0	0.0	0	30.0
42	YECORA 70 =(BLUEBIRD # 2)	MEXICO	3310.7	76.6	118.0	75.0	0.0	10	36.0
3	(TZPP-SCA 64) (IR64A-TZPP X ANE3)	MEXICO	3299.6	79.0	118.0	90.0	0.0	0	24.0
24	FUELGUEN	CHILE	3299.6	81.0	117.0	105.0	20.0	20	29.0
30	CRESPO 63	COLOMBIA	3283.0	77.5	118.0	105.0	10.0	20	30.0
46	PALMIRA 1	COLOMBIA	3233.0	80.0	116.0	115.0	30.0	0	32.0
37	ET 2288	TUNISIA	3233.0	75.6	119.3	85.0	0.0	0	30.0
28	TINGALEN	AUSTRALIA	3199.6	80.6	119.3	83.3	0.0	0	27.0
2	FITIC 62	MEXICO	3121.9	80.6	118.0	85.0	0.0	20	22.0
16	GIZA 155	EGYPT	3110.7	81.0	122.0	100.0	0.0	10	38.0
18	NAPO 63	COLOMBIA	3099.6	75.3	115.0	100.0	0.0	0	31.0
19	C-306	INDIA	2966.3	79.5	120.5	95.0	0.0	0	35.0
23	SARIC 70 =(BLUEBIRD # 3)	MEXICO	2910.8	80.6	119.0	70.0	0.0	10	32.0
20	VICTOR 1	ITALY	2921.9	90.0	122.0	80.0	0.0	10	34.0
4	CARAZINHO	BRAZIL	2795.7	86.6	119.6	105.0	20.0	0	35.0
21	CHRIS	USA	2766.3	84.3	120.0	110.0	20.0	10	23.0
6	PIAPCATES	ARGENTINA	2733.0	85.0	121.0	100.0	20.0	0	23.0
5	BONZA 55	COLOMBIA	2699.7	81.5	116.0	105.0	30.0	0	25.0
10	CAECTO	ARGENTINA	2588.6	86.0	121.0	110.0	20.0	0	25.0
45	BUCK MANANTIAL	ARGENTINA	2316.4	93.0	124.5	115.0	0.0	0	22.0
25	IASSUL	BRAZIL	1695.8	86.5	119.5	120.0	0.0	0	28.0
35	SELKIRK	CANADA	1583.1	94.5	126.0	115.0	0.0	10	26.0
50	LOCAL VARIETY		—	—	—	—	—	—	—
		GRAND MEAN	3355.4	80.3	118.3	89.4	3.9		30.1
	STANDARD ERROR OF GRAND MEAN		29.1	0.0	0.0	0.0	0.1		
	COEFFICIENT OF VARIATION		9.8%	0.8%	0.2%	0.5%	44.7%		
	LSD VARIETY MEANS 5 PC		659.2	1.4	0.6	0.9	3.5		

CORRELATIONS

YIELD KG/HA						
DAYS TO FLOWER	-0.67**					
DAYS TO MATURITY	-0.55**	0.79**				
HEIGHT CM.	-0.59**	0.41**	0.22			
LODGING	-0.20	0.17	-0.08	0.53**		
SHATRNG	0.00	0.00	0.00	0.00	0.00	
1000 GRN WGT GRMS	0.24	-0.33*	-0.26	-0.27	-0.15	0.00

* SIGNIFICANT AT THE 5 LEVEL ** SIGNIFICANT AT THE 1 LEVEL

TABLE 39 MIDDLE EAST IRAN CHPAN

DEZFUL AGRIC. RES. CENTER
COOPERATORS H. KAVEH

LATITUDE — — —
LONGITUDE — — —
ELEVATION — — M.BELOW S.L.

DATE PLANTED 12/24/70
DATE HARVESTED --/--/--
AMOUNT OF MOISTURE 0534 MM

NITROGEN 125.0 KG/HA
PHOSPHORUS 090.0 KG/HA
POTASSIUM 000.0 KG/HA

LOCAL VARIETY NAME WAS SONORA-64. THE SCALE FOR HEAD BREAK-SHATTERING WAS NOT IDENTIFIED. LATITUDE, LONGITUDE-ELEVATION WERE NOT REPORTED. GROWING CONDITIONS WERE FAVORABLE AND NO DISEASES WERE OBSERVED.

VARIETY NUMBER	VARIETY OR CROSS	ORIGIN	YIELD KG/HA	DAYS TO FLOWER	DAYS TO MATURITY	HEIGHT CM.	LODGING	1000 GRN WGT GRMS	PROTEIN %
22	LERMA ROJO 64 X N10B X ANE3	SUDAN	5576.9	102.0	139.0	85.0	2.0	38.5	13.1
16	GIZA 155	EGYPT	5543.9	98.0	138.0	110.0	20.0	45.1	14.7
36	TOB X 8156	MEXICO	5476.9	98.0	133.0	85.0	2.0	37.3	13.7
11	CHENAB 7C	PAKISTAN	5398.9	98.0	133.0	90.0	5.0	45.5	13.5
15	ZAMBEZI	RHODESIA	5298.9	99.0	137.0	90.0	5.0	35.3	13.2
32	CHHOTI LERMA	INDIA	5287.9	100.0	136.0	96.0	5.0	36.1	13.8
14	SIETE CERROS 66	MEXICO	5198.9	101.0	140.0	105.0	15.0	35.1	13.0
45	ALFI 7C =(BLUEBIRD # 1)	MEXICO	5121.9	98.0	136.0	90.0	2.0	40.5	14.0
38	LERMA ROJO 64A	MEXICO	5110.9	99.0	134.0	95.0	20.0	42.7	13.6
41	SAFED LERMA	INDIA	5076.9	98.0	137.0	100.0	20.0	46.7	14.0
34	CAJEME 71 =(BLUEBIRD # 4)	MEXICO	5065.9	100.0	139.0	70.0	2.0	44.5	15.3
17	SYRIMEX	SYRIA	5043.9	98.0	138.0	95.0	25.0	43.1	14.0
8	PENJAMO 62	MEXICO	4921.9	98.0	137.0	90.0	5.0	43.5	13.3
31	ECTAH 70	MEXICO	4821.9	92.0	133.0	90.0	5.0	46.7	17.6
7	[illegible]	SUDAN	4787.9	97.0	134.0	95.0	5.0	44.7	13.3
18	NAPO 63	COLOMBIA	4754.9	98.0	137.0	100.0	5.0	38.7	15.0
39	HAZERA 2152	ISRAEL	4710.9	100.0	138.0	85.0	5.0	41.0	14.5
27	JNIA 66	MEXICO	4699.9	91.0	132.0	95.0	2.0	43.5	12.7
43	MEXICO 120	AUSTRALIA	4676.9	98.0	136.0	65.0	0.0	38.3	14.1
3	(TZPP-SON 64) (LR64A-TZPP X ANE3)	MEXICO	4676.9	98.0	139.0	90.0	10.0	34.3	16.0
9	SON 64A X TZPP-NAINARI 60 (C)	ARGENTINA	4654.9	98.0	136.0	100.0	2.0	39.5	14.5
13	SON64 X TZPP-NAINARI 60 (B)	ARGENTINA	4654.9	98.0	136.0	100.0	2.0	39.5	14.5
50	LOCAL VAR								

28	TINGALEN	AUSTRALIA	4510.9	99.0	139.0	95.0	30.0	38.7	14.9
46	PALMIRA 1	COLOMBIA	4599.9	97.0	136.0	115.0	30.0	40.5	15.0
2	PITIC 62	MEXICO	4587.9	101.0	135.0	95.0	5.0	39.1	15.0
40	TCEARI 66	MEXICO	4532.9	97.0	137.0	95.0	5.0	39.7	14.8
1	NAINARI 60	MEXICO	4476.9	97.0	133.0	105.0	20.0	42.0	13.3
47	SCACFA 64-KLEIN REDIDOR	ARGENTINA	4465.9	92.0	134.0	85.0	2.0	40.5	14.7
23	SARIC 7C =(BLUEBIRC # 3)	MEXICO	4399.9	96.0	135.0	75.0	2.0	53.5	14.0
29	LUACI	RHODESIA	4354.9	98.0	138.0	95.0	5.0	35.5	16.0
42	YECCRA 7C =(ELLEBIRC # 2)	MEXICO	4287.9	101.0	139.0	60.0	0.0	38.5	14.5
37	ET 2288	TUNISIA	4276.9	90.0	132.0	90.0	2.0	38.7	16.0
20	VICTOR 1	ITALY	4276.9	105.0	135.0	90.0	5.0	38.7	16.6
44	BT 2281	TUNISIA	4276.9	90.0	132.0	90.0	2.0	38.7	16.0
12	PATO ARGENTINO	ARGENTINA	4232.9	99.0	134.0	90.0	2.0	30.7	13.6
4	CARAZINHC	BRAZIL	4011.0	102.0	138.0	115.0	20.0	39.1	16.3
45	BUCK MANANTIAL	ARGENTINA	3988.0	107.0	144.0	120.0	80.0	27.7	14.5
30	CRESPO 63	COLOMBIA	3933.0	98.0	135.0	110.0	30.0	39.1	14.5
48	LP 301	INDIA	3844.0	99.0	137.0	65.0	5.0	37.0	14.8
19	C-306	INDIA	3844.0	99.0	137.0	65.0	5.0	37.0	14.8
26	TUFFIN 7	S. AFRICA	3776.9	94.0	135.0	65.0	5.0	37.0	14.8
24	HUELQUEN	CHILE	3523.0	99.0	137.0	110.0	40.0	36.3	14.5
6	FIAPCNTES	ARGENTINA	3511.0	102.0	137.0	120.0	25.0	37.1	16.2
10	GABOTO	ARGENTINA	3511.0	102.0	140.0	115.0	25.0	33.5	16.8
21	CHRIS	USA	3176.9	98.0	133.0	120.0	60.0	31.1	16.1
5	BONZA 55	COLOMBIA	3165.9	100.0	133.0	110.0	25.0	41.1	14.8
25	IASSUL	BRAZIL	2811.0	103.0	136.0	135.0	75.0	38.3	17.8
35	SELKIRK	CANADA	1844.0	114.0	154.0	120.0	75.0	32.0	15.1
		GRAND MEAN	4443.4	99.2	136.3	94.8	14.7	39.6	14.8

STANDARD ERROR OF GRAND MEAN
COEFFICIENT OF VARIATION
LSC VARIETY MEANS 5 PC

CORRELATIONS

YIELD KG/HA	-0.37**					
DAYS TO FLOWER	-0.34*	0.78**				
DAYS TO MATURITY	-0.38**	0.37**	0.22			
HEIGHT CM.	-0.64**	0.55**	0.48**	0.74**		
LODGING	0.41**	-0.49**	-0.43**	-0.26	-0.40**	
1000 GRN WGT GRMS	-0.51**	0.05	0.05	0.26	0.29*	-0.17
PROTEIN %						

* SIGNIFICANT AT THE 5 LEVEL ** SIGNIFICANT AT THE 1 LEVEL

SAFIABAD AGRICULTURAL RESEARCH CENTER,
COOPERATORS S.A. THIES, M. SHISHEGAR.

LATITUDE 032 16'N DATE PLANTED
LONGITUDE 048 25'E DATE HARVESTED
ELEVATION +00083 M.ABOVE S.L. AMOUNT OF MOISTUR

LOCAL VARIETY SONORA 64. COLD AT PLANTING TIME AN
HEADING. INSECTS, WEEDS AND PESTS NO PROBLEM.

VARIETY NUMBER	VARIETY OR CROSS	ORIGIN	YIELD KG/HA
16	GIZA 155	EGYPT	5543.8
36	TCE X 8156	MEXICO	5477.2
11	CHENAB 7C	PAKISTAN	5399.4
15	ZAMBEZI	RHODESIA	5299.4
22	LERMA ROJO 64 X NIC8 X ANE3	SUDAN	5288.3
32	CHHOTI LERMA	INDIA	5288.3
17	SYRIMEX	SYRIA	5243.9
14	SIETE CERROS 66	MEXICO	5199.4
45	NURI 70 =(BLUEBIRD # 1)	MEXICO	5121.7
38	LERMA ROJO 64A	MEXICO	5110.5
41	SAFED LERMA	INDIA	5077.2
34	CAJEME 71 =(BLUEBIRD # 4)	MEXICO	5066.1
8	PENJAMO 62	MEXICO	4921.7
31	FCTAP 70	MEXICO	4821.7
7	3685-CJ542) YAKTANA 54 A(H)	SUDAN	4788.4
18	PARC 63	COLOMBIA	4755.0
39	HAZERA 2152	ISRAEL	4710.6
27	INIA 66	MEXICO	4699.5
3	(TZPP-SON 64) (LR64A-TZPP X ANE3)	MEXICO	4677.3
43	MEXICO 120	AUSTRALIA	4577.3
13	SON64 X TZFP-NAINARI 60 (B)	ARGENTINA	4655.0
50	LOCAL VARIETY		4643.9
33	SONALIKA	INDIA	4643.9
9	SON 64A X TZFP-NAINARI 60 (C)	ARGENTINA	4610.6
28	TIPCALEN	AUSTRALIA	4610.6
46	PALMIRA 1	COLOMBIA	4599.5
2	FITIC 62	MEXICO	4588.4
40	TCEARI 66	MEXICO	4532.8
19	C-306	INDIA	4521.7
1	NAINARI 60	MEXICO	4477.3
47	SONORA 64-KLEIN REMIDOR	ARGENTINA	4466.2
23	SAFIC 70 =(BLUEBIRD # 3)	MEXICO	4399.5
37	BT 2288	TUNISIA	4377.3
29	LUNCI	RHODESIA	4355.1
42	NECORA 70 =(BLUEBIRD # 2)	MEXICO	4288.4
20	VICTOR 1	ITALY	4277.3
44	ET 2281	TUNISIA	4277.3
12	FAIC ARGENTINO	ARGENTINA	4232.9
4	CARAZINHO	BRAZIL	4010.7
49	BUCK NAMANTIAL	ARGENTINA	3986.4
30	CRESPO 63	COLOMBIA	3932.9
48	LP 301	INDIA	3844.0
26	TURPIN 7	S. AFRICA	3777.3
24	HUELQUEN	CHILE	3521.8
6	PIAPCNTES	ARGENTINA	3510.7
10	CAECTO	ARGENTINA	3510.7
21	CHRIS	USA	3177.4
5	BONZA 55	COLOMBIA	3166.3
25	IASSUL	BRAZIL	2810.8
35	SELKIRK	CANADA	1844.2

GRAND MEAN	4456.4
STANDARD ERROR OF GRAND MEAN	44.1
COEFFICIENT OF VARIATION	12.1
LSD VARIETY MEANS 5 PC	1082.0

	CORR
YIELD KG/HA	
DAYS TO FLOWER	-0.3
DAYS TO MATURITY	-0.3
HEIGHT CM.	-0.4
LODGING	-0.7
SHATTERING	0.0
1000 GRN WGT GRMS	0.3
PROTEIN %	-0.4

* SIGNIFICANT AT THE 5 LEVEL ** SI

DEZFUL

12/24/70 NITROGEN 126.0 KG/HA
5/27/71 PHOSPHORUS 040.0 KG/HA
0570 MM POTASSIUM ---.- KG/HA

EAVY RAINS AFTER

AYS TO FLOWER	DAYS TO MATURITY	HEIGHT CM.	LODGING	SHATTERING	1000 GRN WGT GRMS	PROTEIN %
98.0	138.0	110.0	18.3	4	45.1	14.7
98.0	137.0	85.0	4.0	3	37.3	13.7
98.0	133.0	93.3	4.0	3	45.5	13.5
99.0	137.0	93.3	4.0	3	35.3	13.2
102.0	139.0	83.3	2.0	1	38.5	13.1
100.0	136.0	96.6	5.0	2	36.1	13.8
98.0	138.0	98.3	16.6	4	43.1	14.0
101.0	140.0	98.3	11.6	2	35.1	13.0
98.0	135.0	90.0	3.0	3	40.5	14.0
99.0	134.0	101.6	18.3	2	42.7	14.5
98.0	137.0	101.6	16.6	4	46.7	14.0
100.0	139.0	71.6	2.0	0	44.5	15.3
98.0	137.0	95.0	5.6	0	43.5	13.3
92.0	133.0	85.0	4.0	5	45.7	17.6
97.0	134.0	91.6	8.3	1	44.7	13.3
98.0	137.0	106.6	21.6	4	38.7	15.0
100.0	138.0	85.0	4.0	1	41.0	14.5
91.0	132.0	88.3	3.0	2	43.5	12.7
98.0	133.0	93.3	10.0	1	34.3	16.0
98.0	135.0	65.0	1.3	3	38.3	14.1
99.0	136.0	95.0	7.3	5	39.5	14.5
90.0	134.0	76.6	4.0	4	42.1	16.0
90.0	132.0	91.6	5.0	1	52.7	14.1
94.0	134.0	88.3	5.0	5	33.1	14.8
99.0	137.0	95.0	8.3	2	38.7	14.5
97.0	136.0	116.6	25.0	2	45.5	15.0
101.0	135.0	96.6	8.3	2	39.1	15.0
97.0	137.0	91.6	4.0	4	39.7	14.8
98.0	138.0	110.0	36.6	5	47.1	14.0
97.0	133.0	105.0	15.0	0	42.0	13.3
92.0	134.0	86.6	4.0	1	40.5	14.7
96.0	135.0	70.0	1.3	6	53.5	14.1
90.0	132.0	93.3	5.0	2	35.5	13.6
98.0	139.0	80.0	4.0	5	35.5	16.0
101.0	139.0	63.3	1.3	2	38.5	14.5
135.0	135.0	85.0	5.0	4	39.7	16.6
99.0	132.0	88.3	4.6	3	38.7	16.0
98.0	134.0	91.6	4.0	2	30.7	13.6
102.0	138.0	115.0	33.3	1	39.1	16.3
107.0	144.0	120.0	38.3	6	27.7	14.5
98.0	135.0	111.6	21.6	6	39.1	14.6
99.0	137.0	65.0	2.0	2	39.1	14.5
94.0	135.0	65.0	4.0	2	37.0	14.8
99.0	137.0	111.6	48.3	3	36.3	14.5
102.0	137.0	123.3	38.3	2	37.1	16.2
102.0	140.0	118.3	41.6	2	33.5	16.8
98.0	133.0	125.0	63.3	4	31.1	16.1
100.0	133.0	111.6	30.0	5	41.1	14.8
103.0	136.0	130.0	55.6	2	38.3	17.8
114.0	154.0	120.0	63.3	6	32.0	15.1
98.1	136.2	95.4	15.0		39.7	14.7
		0.3	0.8			
		4.2%	69.5%			
		8.0	20.9			

ATIONS

0.78**					
0.39**	0.23				
0.52**	0.42**	0.84**			
0.00	0.00	0.00	0.00		
-0.40**	-0.33*	-0.23	-0.31*	0.00	
0.12	0.02	0.25	0.40**	0.00	-0.15

IFICANT AT THE 1 LEVEL

TABLE 41 MIDDLE EAST IRAN GORGAN

GORGAN EXPERIMENTAL STATION.
COOPERATORS B. SADRI M.A. VAHABIAN.

LATITUDE 036 51'N
LONGITUDE 054 28'E
ELEVATION +00120 M. ABOVE S.L.

DATE PLANTED --/--/--
DATE HARVESTED --/--/--
AMOUNT OF MOISTURE 0233 MM

NITROGEN 104.0 KG/HA
PHOSPHORUS 044.0 KG/HA
POTASSIUM ---.- KG/HA

LOCAL VARIETY NOT IDENTIFIED. NO INSECT, WEED OR PEST PROBLEMS.

VARIETY NUMBER	VARIETY OR CROSS	ORIGIN	YIELD KG/HA	DAYS TO FLOWER	STRIPE RUST	LEAF RUST	HEIGHT CM.	1000 GRN WGT GRMS	POWDERY MILDEW
33	SONALIKA	INDIA	6121.6	106.0	0	0	95.0	50.0	0.0
2	PITIC 62	MEXICO	5788.2	112.0	10S	25S	96.0	36.0	5.0
9	SON 64A X T2FP-MAINARI 60 (C)	ARGENTINA	5510.5	106.0	TRS	0	0.0	34.0	0.0
32	CHHOTI LERMA	INDIA	5277.2	114.0	0	0	82.0	34.0	0.0
1	MAINARI 60	MEXICO	5266.1	112.0	25S	5S	103.0	41.0	0.0
39	HAZERA 2152	ISRAEL	5243.9	108.0	0	20MS	89.0	44.0	0.0
38	LERMA ROJO 64A	MEXICO	5210.5	111.0	0	0	92.0	43.0	20.0
22	LERMA ROJO 64 X N10B X ANE3	SUDAN	5199.4	117.0	0	75S	0.0	31.0	0.0
40	TOBARI 66	MEXICO	5155.0	108.0	0	0	82.0	36.0	25.0
30	CRESPO 63	COLOMBIA	5143.9	114.0	0	R-MS	97.0	33.0	0.0
17	SYRIMEX	SYRIA	5099.4	115.0	20S	50S	0.0	36.0	0.0
27	INIA 66	MEXICO	4988.3	108.0	TRMS	0	81.0	37.0	50.0
34	CAJEME 71 =(BLUEBIRD # 4)	MEXICO	4932.8	111.0	10S	10S	64.0	23.0	0.0
41	SAFED LERMA	INDIA	4910.6	112.0	0	0	88.0	44.0	50.0
45	NURI 70 =(BLUEBIRD # 1)	MEXICO	4899.5	111.0	TRMS	0	85.0	36.0	50.0
20	VICTOR 1	ITALY	4832.8	121.0	0	75S	0.0	36.0	0.0
36	108 X 8156	MEXICO	4821.7	114.0	TRMR	TRMR	78.0	31.0	0.0
23	SARIC 70 =(BLUEBIRD # 3)	MEXICO	4766.1	111.0	TRS	0	62.0	40.0	5.0
31	FONAP 70	MEXICO	4755.0	108.0	10S	0	73.0	34.0	0.0
11	CHENAB 70	PAKISTAN	4743.9	111.0	0	0	0.0	40.0	50.0
29	LUNDI	RHODESIA	4732.8	113.0	0	75S	71.0	41.0	0.0
16	GIZA 155	EGYPT	4699.5	116.0	50S	50S	0.0	40.0	0.0
47	SONORA 64-KLEIN REDIDOR	ARGENTINA	4688.4	112.0	TRMS	0	92.0	38.0	10.0

13	[illegible] 60 (B)	ARGENTINA	4632.8	116.0	TRMR	TRMR	0.0	42.0	0.0
8	PENJAMO 62	MEXICO	4577.3	112.0	TRMS	0	0.0	38.0	0.0
19	C-306	INDIA	4555.0	112.0	0	50VS	0.0	43.0	0.0
44	BT 2281	TUNISIA	4555.0	109.0	0	25S	81.0	39.0	0.0
48	UP 301	INDIA	4543.9	114.0	0	0	61.0	38.0	0.0
37	ET 2288	TUNISIA	4532.8	108.0	TRS	0	83.0	36.0	0.0
12	PATO ARGENTINO	ARGENTINA	4488.4	115.0	TRMR	10S	0.0	32.0	0.0
3	(TZPP-SON 64) (LR64A-TZPP X ANE3)	MEXICO	4443.9	108.0	0	0	92.0	36.0	100.0
7	36856-CJ542 X YAKTANA 54 A(H)	SUDAN	4277.3	106.0	50S	0	0.0	39.0	0.0
26	TUFFIN 7	S. AFRICA	4210.6	114.0	50S	TRMS	60.0	32.0	0.0
50	LOCAL VARIETY		4144.0	115.0	TRS	50VS	116.0	41.0	0.7
42	YECORA 70 =(BLUEBIRD # 2)	MEXICO	4132.9	109.0	25S	0	62.0	36.0	0.0
24	HUELCUEN	CHILE	4132.9	119.0	0	TRMS	107.0	36.0	25.0
21	CHRIS	USA	4088.4	119.0	20S	0	0.0	31.0	0.3
5	ECNZA 55	COLOMBIA	4032.9	111.0	0	25S	110.0	36.0	0.3
46	PALMIRA 1	COLOMBIA	4021.8	114.0	TRS	0	118.0	38.0	25.0
18	NAPO 63	COLOMBIA	3999.5	112.0	0	TRMS	0.0	34.0	20.0
10	GABOTO	ARGENTINA	3932.9	115.0	0	0	0.0	34.0	10.0
28	TIMGALEN	AUSTRALIA	3932.9	116.0	25S	0	92.0	34.0	0.0
15	ZAPEEZI	RHODESIA	3510.7	119.0	50VS	0	0.0	28.0	0.0
4	CARAZINHO	BRAZIL	3466.3	113.0	50S	0	108.0	38.0	25.0
49	BUCK MANANTIAL	ARGENTINA	3410.7	127.0	TRMS	TRMR	120.0	27.0	0.0
6	PIAMONTES	ARGENTINA	3288.5	115.0	TRMR	10S	109.0	36.0	0.0
25	IASSUL	BRAZIL	3033.0	121.0	0	0	125.0	38.0	10.0
35	SELKIRK	CANADA	2721.9	127.0	10S	50S	124.0	31.0	0.0
		GRAND MEAN	4535.0	113.3	9.1	13.1	90.0	36.3	11.9
		STANDARD ERROR OF GRAND MEAN	46.3						
		COEFFICIENT OF VARIATION	12.5%						
		LSD VARIETY MEANS 5 PC	1135.8						

CORRELATIONS

YIELD KG/HA						
DAYS TO FLOWER	-0.58**					
STRIPE RUST	-0.22	0.11				
LEAF RUST	0.06	0.32*	0.05			
HEIGHT CM.	-0.16	0.01	-0.25	-0.22		
1000 GRN WGT GRMS	0.34*	-0.42**	-0.16	0.04	0.11	
MILDEW	0.02	-0.25	-0.20	-0.29*	0.17	0.14

* SIGNIFICANT AT THE 5 LEVEL ** SIGNIFICANT AT THE 1 LEVEL

TABLE 42 MIDDLE EAST IRAQ BAGHDAD

AEL-GHRAIB EXPERIMENTAL STATION.
COOPERATORS HAMID HAMAD AL-JEBOURI.

LATITUDE	033 20'N	DATE PLANTED	12/06/70	NITROGEN	080.0 KG/HA
LONGITUDE	044 24'E	DATE HARVESTED	05/17/71	PHOSPHORUS	018.0 KG/HA
ELEVATION	+00034 M.ABOVE S.L.	AMOUNT OF MOISTURE	0152 MM	POTASSIUM	---.- KG/HA

LOCAL VARIETY NOT IDENTIFIED. WINTER WAS MILD, COLD AND DRY WITH FEW FROSTY NIGHTS. THERE WAS UNUSUAL DROUGHT. NO RUST WAS SEEN IN THE NURSERY. VERY LITTLE PEST PROBLEM.

VARIETY NUMBER	VARIETY OR CROSS	ORIGIN	YIELD KG/HA	TEST WEIGHT	DAYS TO FLOWER	DAYS TO MATURITY	HEIGHT CM.	1000 GRN WGT GRMS
9	SCN 64A X TZPP-NAINARI 60 (C)	ARGENTINA	2977.4	73.3	109.0	161.0	70.0	29.0
18	NAPO 63	COLOMBIA	2544.1	70.7	105.0	161.0	80.0	28.0
11	CHENAB 70	PAKISTAN	2521.9	70.7	113.0	155.0	65.0	30.0
29	LUNDI	RHODESIA	2499.7	70.7	111.0	155.0	60.0	29.0
50	LOCAL VARIETY		2433.0	-	115.0	155.0	70.0	25.0
23	SARIC 70 =(BLUEBIRD # 3)	MEXICO	2344.2	69.4	118.0	159.0	55.0	25.0
31	POTAM 70	MEXICO	2310.8	70.7	105.0	155.0	70.0	28.0
8	FENJAMC 62	MEXICO	2277.5	70.7	112.0	154.0	45.0	32.0
10	GABOTO	ARGENTINA	2255.3	73.3	112.0	155.0	60.0	25.0
42	YECORA 70 =(BLUEBIRD # 2)	MEXICO	2239.7	72.0	115.0	155.0	60.0	26.0
17	SYRIMEX	SYRIA	2133.1	70.7	119.0	155.0	75.0	29.0
22	LERMA ROJO 64 X N10B X ANE3	SUDAN	2133.1	73.3	115.0	155.0	75.0	31.0
26	TURFIN 7	S. AFRICA	2110.8	73.3	118.0	162.0	60.0	31.0
34	CAJEME 71 =(BLUEBIRD # 4)	MEXICO	2055.3	72.0	111.0	155.0	60.0	32.0
32	CHECTI LERMA	INDIA	2055.3	73.3	111.0	155.0	85.0	25.0
38	LERMA ROJO 64A	MEXICO	1973.1	70.7	109.0	155.0	60.0	31.0
14	SIETE CERROS 66	MEXICO	1966.4	69.4	115.0	153.0	100.0	25.0
33	SONALIKA	INDIA	1955.3	73.3	111.0	155.0	75.0	37.0
43	MEXICO 120	AUSTRALIA	1933.1	68.2	115.0	155.0	85.0	25.0
20	VICTOR 1	ITALY	1922.0	69.4	115.0	155.0	60.0	27.0
15	ZAMBEZI	RHODESIA	1910.9	70.7	115.0	161.0	100.0	27.0
[illegible]	[illegible]	INDIA	1844.2	73.3	118.0	161.0	90.0	37.0

41	[illegible]	[illegible]	[illegible]	[illegible]	111.0	155.0	80.0	27.0
37	ET 2288	TUNISIA	1785.3	70.7	115.0	154.0	70.0	24.0
16	GIZA 155	EGYPT	1744.2	69.4	116.0	159.0	90.0	30.0
27	INIA 66	MEXICO	1733.1	59.2	103.0	154.0	75.0	22.0
28	TIMGALEN	AUSTRALIA	1733.1	68.2	116.0	162.0	70.0	22.0
36	TOB X 8156	MEXICO	1722.0	70.7	115.0	154.0	90.0	25.0
39	HAZERA 2152	ISRAEL	1710.9	73.3	113.0	155.0	60.0	31.0
7	36856-GJ542 X YAKTANA 54 A(H)	SUDAN	1655.3	69.4	110.0	152.0	60.0	35.0
12	FATC ARGENTINA	ARGENTINA	1644.2	72.0	113.0	155.0	70.0	22.0
30	CRESPO 63	COLOMBIA	1610.9	70.7	116.0	162.0	75.0	24.0
24	HUELQUEN	CHILE	1577.6	65.6	113.0	159.0	60.0	23.0
40	TOBARI 66	MEXICO	1544.2	74.6	107.0	155.0	70.0	29.0
5	BONZA 55	COLOMBIA	1477.6	69.4	111.0	153.0	65.0	26.0
3	(TZPP-SCN 64) (LR64A-TZPP X AN83)	MEXICO	1449.8	74.6	121.0	160.0	80.0	23.0
25	IASSUL	BRAZIL	1433.1	65.6	115.0	155.0	65.0	24.0
47	SONORA 64-KLEIN RENDIDOR	ARGENTINA	1399.8	69.2	115.0	155.0	70.0	21.0
2	PITIC 62	MEXICO	1388.7	60.4	111.0	153.0	70.0	20.0
13	SON64 X TZPP-NAINARI 60 (B)	ARGENTINA	1388.7	65.6	113.0	153.0	70.0	25.0
35	SELKIRK	CANADA	1372.0	74.6	111.0	155.0	60.0	16.0
6	PIAMONTES	ARGENTINA	1366.5	74.6	117.0	154.0	70.0	27.0
4	CAFAZINHO	BRAZIL	1333.1	69.4	121.0	160.0	70.0	27.0
45	NURI 70 =(BLLEBIRD # 1)	MEXICO	1333.1	69.4	115.0	155.0	80.0	22.0
21	CHRIS	USA	1322.0	72.0	115.0	155.0	80.0	24.0
1	NAINARI 60	MEXICO	1120.9	63.0	114.0	154.0	65.0	22.0
44	ET 2281	TUNISIA	1099.8	69.4	115.0	155.0	70.0	26.0
48	LP 301	INDIA	899.9	-	115.0	155.0	75.0	23.0
46	PALMIRA 1	COLOMBIA	822.1	59.2	115.0	155.0	60.0	23.0
49	EUCK MANANTIAL	ARGENTINA	599.9	-	115.0	155.0	80.0	30.0
		GRAND MEAN	1768.7	65.8	113.5	156.0	70.7	26.5
	STANDARD ERROR OF GRAND MEAN		59.9					
	COEFFICIENT OF VARIATION		41.5%					
	LSD VARIETY MEANS 5 P:		1468.6					

CORRELATIONS

YIELD KG/HA					
TEST WEIGHT	0.31*				
DAYS TO FLOWER	-0.28*	-0.07			
DAYS TO MATURITY	0.22	0.13	0.32*		
HEIGHT CM.	-0.10	-0.07	0.14	0.19	
1000 GRN WGT GRMS	0.37**	0.11	-0.09	0.08	-0.02

* SIGNIFICANT AT THE 5 LEVEL ** SIGNIFICANT AT THE 1 LEVEL

TABLE 43 MIDDLE EAST ISRAEL R.D.S. DE GAT

HAZERA SEEDS LTD. BREEDING SECTION.
COOPERATORS SEM Y. ATSMON; O. FRIEDMAN; M. MUTSAERTS

LATITUDE	031 37' N	DATE PLANTED	11/28/70	NITROGEN	128.0 KG/HA
LONGITUDE	034 47'E	DATE HARVESTED	--/--/--	PHOSPHORUS	025.0 KG/HA
ELEVATION	+00120 M.ABOVE S.L.	AMOUNT OF MOISTURE	0590 MM	POTASSIUM	000.0 KG/HA

LOCAL VARIETY NOT IDENTIFIED. WEATHER WAS DRY DURING FEB. AND MARCH. SEPTORIA LEAF BLOTCH MODERATE. STEM RUST TOO LATE. INSECTS, WEEDS AND PESTS NO PROBLEM.

VARIETY NUMBER	VARIETY OR CROSS	ORIGIN	YIELD KG/HA	TEST WEIGHT	DAYS TO FLOWER	HEIGHT CM.	1000 GRN WGT GRMS
34	CAJEME 71 =(BLUEBIRD # 4)	MEXICO	7595.9	80.4	98.6	85.0	46.5
42	YECORA 70 =(BLUEBIRD # 2)	MEXICO	7121.1	79.7	95.6	80.0	43.9
23	SAFIC 70 =(BLUEBIRD # 3)	MEXICO	6838.3	79.6	97.3	80.0	44.8
27	INIA 66	MEXICO	6747.4	82.9	89.0	110.0	47.2
43	MEXICO 120	AUSTRALIA	6616.1	79.7	93.0	71.6	38.4
31	FOTAP 70	MEXICO	6575.7	80.2	89.3	91.6	44.8
20	VICTOR 1	ITALY	6333.3	79.2	110.3	90.0	41.5
11	CHENAB 70	PAKISTAN	6080.7	80.6	97.6	100.0	42.3
29	LUNDI	RHODESIA	6070.6	78.8	93.3	90.0	41.6
39	HAZERA 2152	ISRAEL	6070.6	79.2	92.3	100.0	43.8
45	NURI 70 =(BLUEBIRD # 1)	MEXICO	5989.8	82.8	96.3	98.3	41.3
48	UP 301	INDIA	5939.3	77.5	97.0	78.3	38.8
9	SON 64A X TZPP-NAINARI 60 (C)	ARGENTINA	5909.0	81.8	89.0	98.3	37.4
50	LOCAL VARIETY		5828.2	80.8	100.0	105.0	40.7
8	FENJANC 62	MEXICO	5816.1	81.3	96.0	103.3	44.1
33	SONALIKA	INDIA	5808.0	80.6	89.0	108.3	54.3
13	SON64 X TZPP-NAINARI 60 (B)	ARGENTINA	5808.0	80.0	101.3	98.3	45.4
44	BT 2281	TUNISIA	5707.0	82.4	91.3	100.0	39.4
22	LERMA ROJO 64 X N108 X ANE3	SUDAN	5595.9	81.0	104.3	91.6	34.5
37	BT 2288	TUNISIA	5494.9	82.2	92.0	101.6	40.0
32	CHRCTI LERMA	INDIA	5434.3	81.4	98.3	101.6	39.1
12	PATO ARGENTINO	ARGENTINA	5383.8	83.0	99.6	101.6	33.4

[illegible]	[illegible]	MEXICO	[illegible]	78.3	101.6	103.3	33.3
3	(TZPP-SCA 64) (LP64A-TZPP X ANE3)	MEXICO	5313.1	82.2	96.6	100.0	39.8
47	SONORA 64-KLEIN RENDIDOR	ARGENTINA	5292.9	81.6	95.3	101.6	40.5
7	36896-CJ542 X YAKTANA 54 A(H)	SUDAN	5151.5	79.4	90.0	103.3	49.3
28	TIMGALEN	AUSTRALIA	5101.0	80.0	102.3	100.0	39.6
15	ZAMBEZI	RHODESIA	5020.1	80.6	97.0	96.6	34.8
18	NAPO 63	COLOMBIA	5020.1	79.8	92.3	118.3	39.6
17	SYRIMEX	SYRIA	4858.5	81.4	98.6	105.0	40.6
4	CARAZINHO	BRAZIL	4828.2	82.2	107.0	121.6	46.3
38	LERMA ROJO 64A	MEXICO	4797.9	81.0	93.3	111.6	42.2
30	CRESPO 63	COLOMBIA	4575.7	81.1	96.3	116.6	40.5
24	HUELQUEN	CHILE	4535.3	81.5	100.6	116.6	43.2
36	TOE X 8156	MEXICO	4484.8	79.6	95.0	86.6	33.2
25	IASSUL	BRAZIL	4303.0	79.5	109.6	128.3	44.8
41	SAFED LERMA	INDIA	4272.7	80.9	96.3	108.3	42.3
46	PALMIRA 1	COLOMBIA	4242.4	77.7	99.3	121.6	45.3
2	PITIC 62	MEXICO	4161.6	76.7	98.0	103.3	39.9
26	TUFFIN 7	S. AFRICA	4080.8	69.3	102.3	71.6	34.1
1	NAINARI 60	MEXICO	3707.0	79.4	101.6	111.6	42.4
21	CHRIS	USA	3707.0	80.8	101.6	128.3	35.4
5	BONZA 55	COLOMBIA	3414.1	78.9	100.3	118.3	38.4
10	GABOTO	ARGENTINA	3353.5	82.4	108.3	118.3	35.9
40	TOBARI 66	MEXICO	3232.3	82.7	92.0	103.3	40.6
16	GIZA 155	EGYPT	3151.5	81.2	97.6	118.3	45.0
6	PIAMONTES	ARGENTINA	2484.8	82.2	107.0	115.0	40.3
49	BUCK MANANTIAL	ARGENTINA	2262.6	78.5	114.0	121.6	27.0
19	C-306	INDIA	1737.3	82.0	100.6	121.6	43.0
35	SELKIRK	CANADA	838.3	64.7	114.0	126.6	21.2
		GRAND MEAN	4960.5	80.0	98.4	103.6	40.5
	STANDARD ERROR OF GRAND MEAN		54.6	0.0	0.1	0.2	0.1
	COEFFICIENT OF VARIATION		13.5%	1.4%	1.2%	3.1%	3.7%
	LSD VARIETY MEANS 5 PC		1339.6	2.2	2.4	6.4	3.0

CORRELATIONS

YIELD	KG/HA				
TEST	WEIGHT	0.33*			
DAYS TO	FLOWER	-0.53**	-0.37**		
HEIGHT	CM.	-0.66**	0.07	0.35**	
1000 GRN WGT	GRMS	0.46**	0.46**	-0.48**	-0.03

* SIGNIFICANT AT THE 5 LEVEL ** SIGNIFICANT AT THE 1 LEVEL

JUBEIHA STATION.
COOPERATORS Z. GHOSHEH, E. JABER AND H.A. AZIZ

LATITUDE 032 02°N DATE PLANTED 12
LONGITUDE 035 52°E DATE HARVESTED 06
ELEVATION +03980 M.ABOVE S.L. AMOUNT OF MOISTURE 0

LOCAL VARIETY NOT IDENTIFIED. ABNORMAL RAINFALL DISTR
DURING MILK-DOUGH STAGE. INSECTS, WEEDS AND PESTS NO

VARIETY NUMBER	VARIETY OR CROSS	ORIGIN	YIELD KG/HA	M
38	LERMA ROJO 64A	MEXICO	6932.6	
39	HAZERA 2152	ISRAEL	6654.8	
42	YECORA 70 =(BLUEBIRD # 2)	MEXICO	6532.6	
31	FCTAP 70	MEXICO	6366.0	
3	(TZPP-SON 64) (LR64A-TZPP X ANE3)	MEXICO	6343.7	
45	NURI 70 =(BLUEBIRD # 1)	MEXICO	6299.3	
47	SONORA 64-KLEIN RENDIDOR	ARGENTINA	6254.9	
7	36856-CJ542 X YAKTANA 54 A(H)	SUDAN	6210.4	
23	SAFIC 70 =(BLUEBIRD # 3)	MEXICO	6177.1	
8	FENJAMO 62	MEXICO	6177.1	
34	CAMPE 71 =(BLUEBIRD # 4)	MEXICO	6121.5	
9	SON 64A X TZPP-NAINARI 60 (C)	ARGENTINA	6077.1	
37	ET 2288	TUNISIA	6054.9	
2	PITIC 62	MEXICO	5977.1	
13	SON64 X TZPP-NAINARI 60 (B)	ARGENTINA	5966.0	
17	SYRIMEX	SYRIA	5921.6	
1	NAINARI 60	MEXICO	5810.5	
18	NAFC 63	COLOMBIA	5810.5	
43	MEXICO 120	AUSTRALIA	5732.7	
30	CRESFC 63	COLOMBIA	5710.5	
24	HUELQUEN	CHILE	5677.1	
15	ZAMBEZI	RHODESIA	5621.6	
46	PALMIRA 1	COLOMBIA	5621.6	
22	LERMA ROJO 64 X N10B X ANE3	SUDAN	5577.2	
14	SIETE CERROS 66	MEXICO	5554.9	
33	SONALIKA	INDIA	5477.2	
11	CHENAB 70	PAKISTAN	5466.1	
32	CHHOTI LERMA	INDIA	5455.0	
48	LP 301	INDIA	5410.5	
28	TIMGALEN	AUSTRALIA	5332.7	
36	TCE X 8156	MEXICO	5310.5	
27	INIA 66	MEXICO	5266.1	
44	ET 2281	TUNISIA	5188.3	
41	SAFED LERMA	INDIA	5121.6	
26	TURPIN 7	S. AFRICA	5110.5	
19	C-306	INDIA	5066.1	
20	VICTOR 1	ITALY	5043.9	
16	GIZA 155	EGYPT	5021.7	
5	ECUZA 55	COLOMBIA	4988.3	
12	PATO ARGENTINO	ARGENTINA	4977.2	
29	LUNCI	RHODESIA	4977.2	
6	PIAMONTES	ARGENTINA	4855.0	
50	LOCAL VARIETY		4810.6	
49	BUCK MANANTIAL	ARGENTINA	4795.5	
40	TOBARI 66	MEXICO	4777.2	
4	CARAZINHO	BRAZIL	4610.6	
10	GABOTO	ARGENTINA	4499.5	
35	SELKIRK	CANADA	4010.7	
21	CHRIS	USA	3977.3	
25	IASSUL	BRAZIL	3121.9	

GRAND MEAN	5477.1
STANDARD ERROR OF GRAND MEAN	55.5
COEFFICIENT OF VARIATION	12.48
LSD VARIETY MEANS 5 P:	1361.0

CORRELAT

YIELD	KG/HA	
TEST	WEIGHT	0.06
DAYS TO	FLOWER	-0.57**
DAYS TO MATURITY		-0.50**
STRIPE	RUST	0.19
LEAF	RUST	0.22
STEM	RUST	-0.02
HEIGHT	CM.	-0.44**
1000 GRN WGT	GRMS	0.05

* SIGNIFICANT AT THE 5 LEVEL ** SIGNIF

AMHAN

/29/70 NITROGEN 000.0 KG/HA
/24/71 PHOSPHORUS 000.0 KG/HA
493 MA POTASSIUM 000.0 KG/HA

BUTION. HOT WIND
BROBLEM.

TEST IGHT	DAYS TO FLOWER	DAYS TO MATURITY	STRIPE RUST	LEAF RUST	STEM RUST	HEIGHT CM.	1000 GRN WGT GRMS
78.5	125.0	172.3	0	1R	0	101.6	35.0
76.0	125.0	171.6	1MR	1MR	1MR	83.3	38.2
76.5	126.0	171.0	0	1MR	1MR	65.0	33.2
78.0	124.6	172.0	0	1R	0	83.3	41.5
77.5	126.6	172.0	0	1R	0	91.6	26.6
76.5	125.0	172.3	1MR	1R	1R	86.6	0.0
77.0	126.3	174.6	0	0	0	88.3	0.0
77.0	125.6	174.0	0	1R	0	91.6	43.2
74.0	125.6	171.0	0	1MR	1R	66.6	30.0
75.0	125.6	171.6	1R	1MR	0	88.3	26.6
76.5	126.6	171.6	0	1R	0	65.0	33.2
77.0	125.6	172.6	0	1R	1R	86.6	28.2
79.0	124.3	173.0	0	1MR	1R	88.3	33.2
69.5	129.3	173.3	0	1R	1R	93.3	28.2
73.5	127.0	173.0	0	1R	0	85.0	31.6
78.0	130.3	173.6	0	1MS	0	90.0	35.0
71.5	125.0	173.0	0	1MR	0	101.6	31.6
74.5	124.6	172.3	0	1MR	0	105.0	28.2
76.0	126.0	171.6	0	1MR	0	61.6	30.1
74.0	126.3	175.6	0	1MR	0	105.0	28.2
77.0	128.3	175.6	0	1MR	0	108.3	33.2
73.0	129.0	173.6	0	1MS	0	83.3	25.0
71.5	126.6	173.3	0	1R	0	108.3	0.0
75.5	127.3	173.0	0	1MS	1MR	73.3	23.2
75.5	131.0	173.3	0	1MR	0	85.0	26.6
76.0	124.3	171.6	0	0	0	86.6	40.0
77.5	125.6	172.3	0	1MS	0	85.0	33.2
78.5	128.3	172.0	0	0	0	83.3	33.2
74.0	126.6	171.3	1MR	0	0	61.6	0.0
74.0	127.0	173.0	0	1MR	0	93.3	26.6
71.5	125.6	172.0	1MR	1MR	0	73.3	26.6
81.5	123.3	172.0	1R	0	0	86.6	38.2
80.0	125.3	173.6	1R	1MR	1R	76.6	38.2
78.5	125.6	172.3	1R	1R	0	98.3	36.6
71.0	126.0	171.6	0	1MR	0	60.0	25.0
78.5	126.0	174.6	1R	1R	0	106.6	33.2
72.0	133.0	175.0	0	1VS	1MS	71.6	29.2
76.5	127.3	176.0	0	1MR	1R	103.3	33.2
71.5	127.3	174.0	0	1R	1R	106.6	28.2
76.5	128.6	172.3	0	1R	0	85.0	25.0
74.0	127.0	172.3	0	1MR	1MR	73.3	30.0
74.0	131.3	173.0	0	1R	1R	110.0	28.2
79.0	128.3	176.3	0	0	1R	115.0	0.0
78.0	136.0	177.0	0	1R	1R	111.6	0.0
78.0	125.6	172.6	0	1R	0	78.3	35.0
77.5	129.3	173.6	0	1MR	0	116.6	40.0
78.0	130.3	174.3	0	0	0	110.0	25.6
74.0	134.6	176.0	0	1R	1R	115.0	33.2
78.0	129.3	175.3	0	1R	0	113.3	25.6
72.0	131.3	174.6	0	1R	1R	121.6	29.2
75.9	127.4	173.2	0.0	0.2	0.1	90.5	31.5
	0.1	0.0	0.0	0.0	0.0	0.3	
	0.9%	0.5%	259.8%	53.7%	109.6%	4.8%	
	2.5	2.0	0.2	0.3	0.2	8.8	

RRS

-0.18						
0.05	0.62**					
0.10	-0.37**	-0.43**				
-0.16	0.18	0.03	0.03			
-0.23	0.33*	0.23	-0.08	0.75**		
0.06	0.38**	0.68**	-0.25	-0.30*	-0.12	
0.14	-0.24	-0.23	0.13	0.13	-0.05	-0.07

CANT AT THE 1 LEVEL

TABLE 45 MIDDLE EAST LEBANON BEIRUT

AMERICAN UNIVERSITY OF BEIRUT-AREC. BEQA'A.
COOPERATORS DR. HIKMAT G. NASR, W. KHAYRALLAH.

LATITUDE	033 55' N	DATE PLANTED	11/17/73	NITROGEN	026.0 KG/HA
LONGITUDE	036 05'E	DATE HARVESTED	--/--/--	PHOSPHORUS	035.0 KG/HA
ELEVATION	+00995 M. ABOVE S.L.	AMOUNT OF MOISTURE	0532 MM	POTASSIUM	---.- KG/HA

LOCAL VARIETY NAJAH. HEAVY RAIN DURING THE FIRST HALF OF APRIL. NO INSECT, WEED OR PEST PROBLEMS.

VARIETY NUMBER	VARIETY OR CROSS	ORIGIN	YIELD KG/HA	DAYS TO FLOWER	HEIGHT CM.
11	CHENAB 70	PAKISTAN	5040.0	171.0	103.3
42	YECORA 70 =(BLUEBIRD # 2)	MEXICO	4866.6	166.0	80.0
26	TURPIN 7	S. AFRICA	4750.0	172.0	80.0
48	LP 301	INDIA	4520.0	173.0	76.6
43	MEXICO 120	AUSTRALIA	4473.3	156.0	75.0
29	LUNDI	RHODESIA	4466.6	171.0	96.6
37	BT 2288	TUNISIA	4340.0	165.0	103.3
34	CAJEME 71 =(BLUEBIRD # 4)	MEXICO	4193.3	171.0	86.6
27	INIA 66	MEXICO	4180.0	165.0	109.3
9	SCA 64A X T2FP-NAINARI 60 (C)	ARGENTINA	4166.6	169.0	101.6
2	FITIC 62	MEXICO	4116.6	173.0	106.6
23	SARIC 70 =(BLUEBIRD # 3)	MEXICO	4043.3	172.0	83.3
41	SAFED LERMA	INDIA	4000.0	166.0	108.3
40	TOEARI 66	MEXICO	3963.3	166.0	103.3
39	HAZERA 2152	ISRAEL	3956.6	165.0	96.6
1	NAINARI 60	MEXICO	3856.6	165.0	116.6
47	SCACRA 64-KLEIN RENDIDOR	ARGENTINA	3840.0	171.0	103.3
31	POTAM 70	MEXICO	3836.6	165.0	96.6
7	36896-CJ542 X YAKTANA 54 A(M)	SUDAN	3793.3	170.0	111.0
45	NURI 70 =(BLUEBIRD # 1)	MEXICO	3750.0	171.0	95.0
20	VICTOR 1	ITALY	3710.0	177.0	96.6

44	[illegible]	TUNISIA	3686.6	166.0	100.0
8	FENJAMO 62	MEXICO	3566.6	171.0	105.0
3	(TZPP-SON 64) (LR64A-TZPP X ANE3)	MEXICO	3483.3	170.0	96.6
12	FATC ARGENTINO	ARGENTINA	3470.0	174.0	95.0
28	TIMGALEN	AUSTRALIA	3440.0	173.0	110.0
22	LERMA ROJO 64 X N10B X ANE3	SUDAN	3390.0	174.0	85.0
33	SONALIKA	INDIA	3353.3	165.0	110.0
15	ZAMBEZI	RHODESIA	3326.6	174.0	95.0
14	SIETE CERROS 66	MEXICO	3273.3	178.0	98.3
38	LERMA ROJO 64A	MEXICO	3266.6	172.0	108.3
16	GIZA 155	EGYPT	3190.0	173.0	123.3
18	NAPO 63	COLOMBIA	3150.0	170.0	116.6
30	CRESPO 63	COLOMBIA	3120.0	171.0	121.5
24	HUELQUEN	CHILE	3053.3	175.0	118.3
50	LOCAL VARIETY		3033.3	165.0	131.6
36	TOB X 8156	MEXICO	2930.0	173.0	93.3
17	SYRIMEX	SYRIA	2920.0	174.0	101.6
13	SON64 X TZPP-NAINARI 60 (B)	ARGENTINA	2896.6	167.0	101.6
19	C-306	INDIA	2776.6	170.0	123.3
21	CHRIS	USA	2530.0	173.0	123.3
49	BUCK MANANTIAL	ARGENTINA	2456.6	177.0	118.3
4	CARAZINHO	BRAZIL	2416.6	169.0	130.0
46	PALMIRA 1	COLOMBIA	2363.3	172.0	126.6
10	GAECTC	ARGENTINA	2356.6	171.0	126.6
6	PIAMONTES	ARGENTINA	2326.6	174.0	120.0
25	IASSUL	BRAZIL	2326.6	177.0	125.0
5	BONZA 55	COLOMBIA	2300.0	173.0	123.3
35	SELKIRK	CANADA	2203.3	179.0	115.0
		GRAND MEAN	3483.1	170.7	105.4
	STANDARD ERROR OF GRAND MEAN		49.8		0.3
	COEFFICIENT OF VARIATION		17.5%		3.7%
	LSD VARIETY MEANS 5 PC		1222.2		7.9

CORRELATIONS

YIELD	KG/HA		
DAYS TO	FLOWER	-0.40**	
HEIGHT	CM.	-0.72**	0.06

* SIGNIFICANT AT THE 5 LEVEL ** SIGNIFICANT AT THE 1 LEVEL

TABLE 46 MIDDLE EAST LEBANON TEL - AMARA

TEL-AMARA.
COOPERATORS G. KINGMA AND M. ABI ANTOUN.

LATITUDE	037 62'N	DATE PLANTED	11/21/70	NITROGEN	120.0 KG/HA
LONGITUDE	040 00'E	DATE HARVESTED	--/--/--	PHOSPHORUS	060.0 KG/HA
ELEVATION	+00940 M.ABOVE S.L.	AMOUNT OF MOISTURE	0625 MM	POTASSIUM	000.0 KG/HA

LOCAL VARIETY FLORENCE AURORA. INSECTS AND PESTS NO PROBLEM. WILD OATS PULLED BY HAND.

VARIETY NUMBER	VARIETY OR CROSS	ORIGIN	YIELD KG/HA	DAYS TO FLOWER	DAYS TO MATURITY	STRIPE RUST	LEAF RUST	HEIGHT CM.
17	SYRINEX	SYRIA	8176.9	149.0	185.0	0	20S	105.0
14	SIETE CERROS 66	MEXICO	7976.9	150.0	186.0	5MS	5S	105.0
22	LERMA ROJO 64 X N10B X ANE3	SUDAN	7643.6	148.0	185.0	5MS	10S	80.0
15	ZAFEEZI	RHODESIA	7343.6	148.0	186.0	50S	5MS	95.0
20	VICTOR 1	ITALY	7099.2	147.0	182.0	5MS	5MS	90.0
32	CHRCTI LERMA	INDIA	6865.9	147.0	183.0	0	0	95.0
41	SAFED LERMA	INDIA	6793.7	143.0	179.0	0	0	95.0
2	PITIC 62	MEXICO	6621.5	147.0	180.0	0	10S	95.0
36	TOB X 8156	MEXICO	6588.2	146.0	180.0	TRR	10MS	85.0
47	SONORA 64-KLEIN RENDIDOR	ARGENTINA	6588.2	145.0	179.0	10S	0	90.0
31	FOTAP 70	MEXICO	6499.3	143.0	183.0	5R	0	85.0
29	LUNDI	RHODESIA	6343.8	144.0	181.0	10S	5MS	70.0
42	YECORA 70 =(BLUEBIRD # 2)	MEXICO	6299.3	144.0	175.0	5MS	0	65.0
26	TURPIN 7	S. AFRICA	6243.8	144.0	183.0	20S	0	65.0
43	MEXICO 120	AUSTRALIA	6210.4	143.0	181.0	0	TRR	65.0
7	36656-CJ542 X YAKTANA 54 A(H)	SUDAN	6154.9	145.0	181.0	100S	0	95.0
34	CAJEME 71 =(BLUEBIRD # 4)	MEXICO	6099.3	144.0	179.0	10MS	0	80.0
12	PATO ARGENTINO	ARGENTINA	6088.2	146.0	182.0	0	TRR	90.0
33	SONALIKA	INDIA	6032.7	143.0	183.0	5R	0	95.0
39	HAZERA 2152	ISRAEL	6021.6	144.0	179.0	5MS	30S	80.0
30	CRESPO 63	COLOMBIA	5977.1	147.0	181.0	0	10MS	110.0
38	LERMA ROJO 64A	MEXICO	5966.0	145.0	179.0	5MS	0	95.0
8	PENJAMO 62	MEXICO	5888.2	144.0	182.0	80S	0	95.0

16	GIZA 139	EGYPT	5832.7	146.0	182.0	0	10S	110.0
24	PUELQUEN	CHILE	5832.7	149.0	185.0	0	0	115.0
3	(TZPP-SON 64) (LR64A-TZPP X ANE3)	MEXICO	5832.7	146.0	175.0	5MS	0	90.0
40	TOBARI 66	MEXICO	5743.8	145.0	180.0	5MS	0	95.0
44	ET 2281	TUNISIA	5743.8	146.0	185.0	5MS	10S	90.0
10	GABOTO	ARGENTINA	5732.7	148.0	182.0	5S	0	115.0
9	SON 64A X TZPP-NAINARI 60 (C)	ARGENTINA	5654.9	144.0	180.0	5S	0	95.0
48	LP 301	INDIA	5521.6	144.0	178.0	20S	0	65.0
23	SARIC 70 =(BLUEBIRD # 3)	MEXICO	5499.4	145.0	176.0	10S	0	75.0
11	CHENAB 70	PAKISTAN	5449.4	146.0	180.0	TRR	TRR	90.0
49	BUCK MANANTIAL	ARGENTINA	5410.5	152.0	181.0	0	TRR	115.0
28	TIPGALEN	AUSTRALIA	5299.4	146.0	181.0	20MS	5S	90.0
6	PIAMONTES	ARGENTINA	5132.8	148.0	180.0	5MS	TRR	115.0
19	C-306	INDIA	5066.1	145.0	181.0	TRR	20S	110.0
18	NAPC 63	COLOMBIA	4955.0	146.0	179.0	TRR	10MS	110.0
13	SON64 X TZPP-NAINARI 60 (B)	ARGENTINA	4938.3	145.0	181.0	5MS	0	90.0
45	NURI 70 =(BLUEBIRD # 1)	MEXICO	4899.5	145.0	180.0	5MS	0	80.0
21	CHRIS	USA	4766.1	148.0	181.0	5R	0	125.0
27	INIA 66	MEXICO	4699.5	144.0	180.0	5MS	0	85.0
4	CARAZINHO	BRAZIL	4532.8	147.0	180.0	5MS	0	110.0
5	BONZA 55	COLOMBIA	4521.7	144.0	180.0	0	5MS	110.0
46	PALMIRA 1	COLOMBIA	4477.3	146.0	179.0	10S	0	105.0
37	ET 2288	TUNISIA	4366.2	144.0	180.0	5MS	0	95.0
35	SELKIRK	CANADA	4088.4	152.0	185.0	5R	TRR	125.0
25	IASSUL	BRAZIL	3221.8	151.0	181.0	TRR	TRR	125.0
50	LOCAL VARIETY		2699.7	146.0	175.0	0	0	120.0
		GRAND MEAN	5746.5	146.0	180.6	8.1	3.2	95.5
	STANDARD ERROR OF GRAND MEAN		57.5					
	COEFFICIENT OF VARIATION		12.2%					
	LSD VARIETY MEANS 5 PC		1410.9					

CORRELATIONS

YIELD	KG/HA					
DAYS TO	FLOWER	-0.04				
DAYS TO	MATURITY	0.40**	0.38**			
STRIPE	RUST	0.13	-0.15	0.12		
LEAF	RUST	0.28*	0.07	0.21	-0.13	
HEIGHT	CM.	-0.41**	0.65**	0.13	-0.14	0.00

* SIGNIFICANT AT THE 5 LEVEL ** SIGNIFICANT AT THE 1 LEVEL

TABLE 47 NORTH AMERICA CANADA SASKATCHEWAN

SASKATOON.
COOPERATORS G.R. HUGHES AND D.R. KNOTT.

LATITUDE	052 00'N	DATE PLANTED	05/06/71	NITROGEN	012.0 KG/HA
LONGITUDE	106 00' W	DATE HARVESTED	08/26/71	PHOSPHORUS	054.0 KG/HA
ELEVATION	+00508 M.ABOVE S.L.	AMOUNT OF MOISTURE	0251 MM	POTASSIUM	000.0 KG/HA

LOCAL VARIETY NEEPAWA. WEATHER TURNED HOT AND VERY DRY IN LATE JULY AND CONTINUED THROUGH AUGUST. LATE, MODERATE DEVELOPMENT OF LEAF RUST. LIGHT TO MODERATE DEVELOPMENT OF SEPTORIA TRITICI.

VARIETY NUMBER	VARIETY OR CROSS	ORIGIN	YIELD KG/HA	DAYS TO FLOWER	DAYS TO MATURITY	HEIGHT CM.	LODGING	1000 GRN WGT GRMS
7	36856-CJ542 * YAKTANA 54 A(H)	SUDAN	5884.3	57.6	108.6	92.0	25.8	48.5
2	FITIC 62	MEXICO	5796.4	59.3	107.0	90.0	25.8	42.5
20	VICTOR 1	ITALY	5502.1	67.3	108.0	71.0	18.4	41.0
17	SYFIMEX	SYRIA	5435.8	56.6	106.0	84.0	25.8	48.5
22	LERMA ROJO 64 * NICB * ANE3	SUDAN	5432.2	59.0	106.3	70.3	11.0	43.5
41	SAFED LERMA	INDIA	5349.6	56.3	101.0	82.6	25.8	51.5
32	CHHOTI LERMA	INDIA	5286.9	59.0	105.6	86.0	14.7	41.0
39	HAZERA 2152	ISRAEL	5247.4	53.3	104.6	78.0	22.1	47.5
14	SIETE CERROS 66	MEXICO	5225.9	59.0	105.6	83.0	22.1	42.5
49	BUCK MANANTIAL	ARGENTINA	5159.5	56.3	105.6	88.6	25.8	39.5
30	CRESFO 63	COLOMBIA	5039.3	56.3	103.3	95.6	22.1	48.0
31	POTAM 70	MEXICO	5021.3	53.0	100.6	75.3	14.7	50.8
15	ZAPEEZI	RHODESIA	5010.6	57.3	105.6	75.6	18.4	42.5
42	YECORA 70 =(BLUEBIRD # 2)	MEXICO	4971.1	55.6	102.0	58.6	11.0	50.5
36	TOB * 8156	MEXICO	4965.7	56.0	102.6	67.3	22.1	43.2
24	HUELGUEN	CHILE	4892.2	60.0	105.0	92.0	29.5	43.0
23	SARIC 70 =(BLUEBIRD # 3)	MEXICO	4881.4	59.3	104.0	60.6	11.0	52.7
46	FALPIRA 1	COLOMBIA	4877.8	53.3	100.3	87.3	40.6	48.3
12	PATO ARGENTINO	ARGENTINA	4852.7	56.3	105.0	75.0	14.7	40.2
38	LERMA ROJO 64A	MEXICO	4850.9	55.3	102.0	85.3	22.1	48.5
43	MEXICO 120	AUSTRALIA	4838.4	58.0	107.3	57.6	11.0	47.7
45	NURI 70 =(BLUEBIRD # 1)	MEXICO	4811.5	56.0	101.3	73.6	18.4	45.0

34	CAMEME 71 =(BLUEBIRD # 4)	MEXICO	4624.9	59.6	104.6	66.0	11.0	55.6
16	GIZA 155	EGYPT	4508.7	56.0	107.3	86.0	25.8	52.5
48	LP 301	INDIA	4560.3	57.3	100.6	53.3	11.0	47.6
8	PENJAMO 62	MEXICO	4529.8	57.6	103.6	89.3	19.4	50.0
44	ET 2281	TUNISIA	4510.1	56.0	105.6	75.6	22.1	43.8
5	BONZA 55	COLOMBIA	4461.6	60.0	104.6	103.3	33.2	44.0
13	SCN64 X TZFF-NAINARI 60 (B)	ARGENTINA	4405.6	55.6	101.3	73.3	18.4	50.1
33	SONALIKA	INDIA	4407.8	53.6	102.6	76.6	29.5	58.5
1	NAINARI 60	MEXICO	4384.5	57.3	103.3	87.6	14.7	48.0
21	CHRIS	USA	4357.6	60.0	106.6	105.6	36.9	35.5
50	LOCAL VARIETY		4321.7	59.0	105.3	98.3	22.1	38.5
9	SCN 64A X TZPP-NAINARI 60 (C)	ARGENTINA	4310.9	56.0	102.0	75.3	14.7	37.5
4	CARAZINHO	BRAZIL	4309.1	63.3	108.3	102.3	33.2	46.0
40	TOBARI 66	MEXICO	4298.4	56.0	102.0	77.6	14.7	43.2
27	INIA 66	MEXICO	4296.6	53.6	100.3	75.6	18.4	48.6
18	NAPO 63	COLOMBIA	4251.7	52.6	99.6	86.0	33.2	42.2
37	ET 2288	TUNISIA	4194.3	55.3	103.6	78.0	18.4	44.5
25	IASSUL	BRAZIL	4174.6	63.6	106.6	112.3	51.7	44.0
26	TURPIN 7	S. AFRICA	4172.8	56.0	100.6	52.6	11.0	48.6
6	FIAPCENTES	ARGENTINA	4013.1	60.3	104.6	94.3	22.1	42.8
47	SONORA 64-KLEIN RENDIDOR	ARGENTINA	3984.4	55.6	102.0	78.6	22.1	45.8
3	(TZFF-SON 64) (LF64A-TZPP X ANE3)	MEXICO	3975.5	55.6	100.6	74.0	22.1	42.0
10	GABOTO	ARGENTINA	3919.8	62.6	109.6	99.3	29.5	34.6
29	LUNCI	RHODESIA	3912.7	57.0	103.0	65.3	11.0	41.0
35	SELKIRK	CANADA	3900.1	58.3	103.3	97.3	22.1	40.7
19	C-306	INDIA	3293.7	58.0	105.6	94.6	33.2	48.5
		GRAND MEAN	4656.8	57.5	104.1	81.1	22.0	45.5
	STANDARD ERROR OF GRAND MEAN		39.1	0.0	0.1	0.3	0.4	
	COEFFICIENT OF VARIATION		10.2%	1.4%	1.5%	5.8%	25.6%	
	LSD VARIETY MEANS 5 PC		958.5	1.7	3.2	9.5	11.3	

CORRELATIONS

YIELD KG/HA					
DAYS TO FLOWER	0.07				
DAYS TO MATURITY	0.21	0.71**			
HEIGHT CM.	-0.14	0.33*	0.41**		
LODGING	-0.14	0.18	0.24	0.76**	
1000 GRN WGT GRMS	0.12	-0.35**	-0.29*	-0.34*	-0.13

* SIGNIFICANT AT THE 5 LEVEL ** SIGNIFICANT AT THE 1 LEVEL

CANADA DEPT. OF AGRIC. RESEARCH STATION, WINNIPEG.
COOPERATORS A.B. CAMPBELL.

LATITUDE 050 00'N DATE PLANTED 05
LONGITUDE 097 00'W DATE HARVESTED 08
ELEVATION +00235 M.ABOVE S.L. AMOUNT OF MOISTURE 0

LOCAL VARIETY NEEPAWA. LEAF RUST WAS RATHER LATE IN S

VARIETY NUMBER	VARIETY OR CROSS	ORIGIN	YIELD KG/HA
2	FITIC 62	MEXICO	4811.9
23	SAFIC 70 =(BLLEBIPD # 3)	MEXICO	4668.3
20	VICTOR 1	ITALY	4154.6
13	SCP64 X TZPP-BAIDARI 60 (B)	ARGENTINA	4125.4
17	SYRINE3	SYRIA	4103.0
42	BECCRA 70 =(ELUEEIFD # 2)	MEXICO	4096.3
31	POTAM 70	MEXICO	4042.4
33	SCHALIKA	INDIA	4033.5
4	CARAZINHO	BRAZIL	4022.2
12	FATC ARGENTINA	ARGENTINA	4022.2
34	CAJEPE 71 =(PLLEEIFD # 4)	MEXICO	4015.5
7	36ES6-CJ542 X YAKTANA 54 A(H)	SUDAN	3984.1
8	FED.APC 62	MEXICO	3984.1
25	IASSUL	BRAZIL	3903.3
48	LF 301	INDIA	3874.2
41	SAFED LERMA	INDIA	3833.8
22	LERMA BOJO 64 X A108 X ANE3	SUDAN	3813.6
39	HAZERA 2152	ISRAEL	3739.6
18	NAPO 63	COLOMBIA	3728.4
9	SCP 64A X TZPP-BAIDARI 60 (C)	ARGENTINA	3665.6
44	ET 2281	TUNISIA	3658.8
24	PLELCLEN	CHILE	3652.1
15	ZAMBEZI	RHODESIA	3609.5
30	CRESFO 63	COLOMBIA	3602.7
1	BAIDARI 60	MEXICO	3602.7
46	FALPIRA 1	COLOMBIA	3589.3
5	PENJA 55	COLOMBIA	3587.0
21	CHRIS	USA	3534.8
6	FLAPCATES	ARGENTINA	3533.2
3	(TZPP-SON 64) (LR64A-TZPP X ANE3)	MEXICO	3522.0
40	TCEPPI 66	MEXICO	3522.0
50	LOCAL VARIETY		3515.3
49	BUCK MARANTIAL	ARGENTINA	3497.3
36	TOP > 6156	MEXICO	3497.3
47	SONORA 64-KLEIN REMOLDOR	ARGENTINA	3497.3
11	CHENAB 70	PAKISTAN	3474.9
28	TIPGALEN	AUSTRALIA	3461.4
32	CHHOTI LERMA	INDIA	3450.2
14	SIETE CERROS 66	MEXICO	3448.0
38	LERMA ROJO 64A	MEXICO	3340.3
10	CAECTO	ARGENTINA	3311.1
29	LUADI	RHODESIA	3306.6
43	MEXICO 120	AUSTRALIA	3279.7
16	GIZA 155	EGYPT	3228.1
27	BAJA 66	MEXICO	3185.5
26	TLEFIA 7	S. AFRICA	3172.0
37	ET 2288	TUNISIA	3160.8
45	ALFI 70 =(ELUEBIFC # 1)	MEXICO	3118.2
35	SELKIRK	CANADA	2873.7
19	C-306	INDIA	2716.6
		GRAND MEAN	3652.4
		STANDARD ERROR OF GRAND MEAN	35.2
		COEFFICIENT OF VARIATION	11.8%
		LSD VARIETY MEANS 5 PC	864.0

CORRELAT

YIELD	KG/HA	
TEST	WEIGHT	-0.19
DAYS TO	MATURITY	0.16
LEAF	RUST	-0.11
HEIGHT	CM.	-0.09
LODGING		-0.02
SHATTERING		-0.00
SHATTERING	HEAD	-0.06
1000 GRN WGT	GRMS	0.21

* SIGNIFICANT AT THE 5 LEVEL ** SIGNIF

MANITOBA

/71	NITROGEN	045.0 KG/HA
/71	PHOSPHORUS	020.0 KG/HA
	POTASSIUM	---.- KG/HA

ING. NO INSECT, WEED OR PEST PROBLEMS.

EST NT	DAYS TO MATURITY	LEAF RUST	HEIGHT CM.	LODGING	SHATTERING	SHATTERING HEAD	1000 GRN WGT GMS
.5	104.6	30MS	78.0	22.2	0.0	0.0	36.5
.6	100.0	3S	52.0	0.0	1.0	1.0	47.6
.2	106.0	TR	62.6	11.1	0.0	0.0	31.1
.3	103.0	3R	68.0	11.1	0.0	0.0	43.5
.2	100.3	40MR	75.0	11.1	10.0	5.0	40.5
.3	101.0	3S	49.3	11.1	1.0	1.0	44.5
.2	95.6	10R	61.0	11.1	30.0	50.0	50.7
.0	101.0	40MS	69.0	22.2	1.0	1.0	53.7
.3	109.0	1R	102.3	66.6	1.0	1.0	42.5
.5	100.6	TR	66.0	11.1	0.0	0.0	35.6
.6	100.3	2MS	55.3	11.1	5.0	5.0	50.5
.7	106.6	5MR	76.0	22.2	1.0	1.0	43.8
.6	102.3	5MR	70.5	11.1	0.0	0.0	39.1
.8	103.6	1R	103.6	77.7	20.0	50.0	39.0
.3	98.0	1MS	48.3	11.1	0.0	0.0	47.0
.3	101.3	30M	74.0	33.3	0.0	0.0	40.2
.0	103.6	70MS	67.0	11.1	0.0	0.0	32.5
.1	102.0	30MR	67.0	22.2	0.0	0.0	39.1
.6	95.3	30MR	81.3	11.1	1.0	1.0	39.1
.6	100.0	2R	66.6	11.1	30.0	5.0	32.5
.6	103.3	0.0	69.0	11.1	0.0	0.0	39.1
.3	102.0	50MR	81.0	11.1	1.0	1.0	34.0
.0	102.3	30MS	67.0	11.1	0.0	0.0	35.3
.7	101.3	20MS	87.3	22.2	1.0	1.0	34.7
.0	101.6	25MS	71.6	11.1	1.0	1.0	45.3
.0	97.6	10MR	76.6	11.1	0.0	0.0	44.0
.4	102.0	25MS	90.6	22.2	0.0	0.0	35.8
.3	105.0	10MR	93.6	33.3	0.0	0.0	32.1
.9	102.6	TR	87.3	22.2	0.0	0.0	39.2
.6	98.3	15MR	69.6	11.1	30.0	2.0	37.0
.6	102.0	TR	69.5	22.2	0.0	0.0	39.3
.3	102.0	50S	93.3	22.2	0.0	0.0	33.5
.5	102.0	TVR	78.3	22.2	0.0	0.0	38.0
.2	100.4	0.0	57.3	22.2	0.0	0.0	35.8
.2	88.3	20MR	69.6	11.1	20.0	50.0	42.5
.6	100.3	40MS	63.3	11.1	10.0	20.0	44.6
.3	102.6	5R	68.0	11.1	5.0	5.0	39.0
.0	102.0	60S	69.3	11.1	1.0	1.0	34.5
.6	101.3	40MS	69.0	11.1	20.0	10.0	34.8
.6	99.6	60MS	73.0	22.2	1.0	1.0	43.0
.0	106.0	TVR	90.0	55.5	20.0	1.0	33.5
.3	109.6	1R	57.0	22.2	0.0	0.0	37.8
.3	101.3	30MR	48.6	11.1	0.0	0.0	37.6
.4	105.4	5MR	70.6	22.2	1.0	1.0	37.0
.5	97.0	80S	61.0	11.1	0.0	0.0	42.0
.2	100.0	30MR	46.6	11.1	0.0	0.0	43.8
.9	101.6	TR	66.0	11.1	1.0	1.0	41.0
.9	100.3	1MS	61.3	11.1	1.0	1.0	40.5
.0	94.6	30MR	88.0	11.1	5.0	50.0	35.6
.2	104.3	0.0	85.0	33.3	0.0	0.0	42.0
.6	101.2	13.8	71.5	18.6	4.3	5.3	39.6
	0.2		0.2				
	2.8%		3.7%				
	5.7		5.3				

MS

-0.29*						
0.07	-0.12					
-0.12	0.31*	0.00				
-0.25*	0.46**	0.00	0.69**			
0.11	-0.31*	-0.13	0.08	0.11		
-0.07	-0.51**	-0.08	0.16	0.15	0.57	
0.15	-0.29*	-0.10	-0.36**	-0.11	-0.00	0.17

ANT AT THE 1 LEVEL

TABLE 49 NORTH AMERICA U.S.A. ALASKA

INSTITUTE OF AGRICULTURAL SCIENCES, PALMER.
COOPERATORS R.L. TAYLOR

LATITUDE	061 34°N	DATE PLANTED	05/14/71	NITROGEN	013.0 KG/HA
LONGITUDE	149 16°W	DATE HARVESTED	09/27/71	PHOSPHORUS	057.0 KG/HA
ELEVATION	+00061 M.ABOVE S.L.	AMOUNT OF MOISTURE	0293 MM	POTASSIUM	022.0 KG/HA

LOCAL VARIETY GASSER. ADEQUATE MOISTURE AND COOL TEMPERATURES RESULTED IN DELAYED MATURITY. DISEASE DEVELOPMENT, INSECTS, WEEDS AND PESTS NOT REPORTED.

VARIETY NUMBER	VARIETY OR CROSS	ORIGIN	YIELD KG/HA	TEST WEIGHT	DAYS TO FLOWER	DAYS TO MATURITY	HEIGHT CM.	LODGING	SHATTERING
20	VICTOR 1	ITALY	2915.2	75.2	56.0	130.3	62.6	0.0	42.8
46	PALMIRA 1	COLOMBIA	2471.9	76.1	55.6	125.6	81.2	17.6	51.8
2	PITIC 62	MEXICO	2448.6	75.6	62.3	133.6	76.1	2.0	43.2
33	SONALIKA	INDIA	2405.7	76.9	58.0	133.6	72.8	0.6	55.5
16	GIZA 155	EGYPT	2284.2	73.3	59.0	136.0	80.4	1.0	42.5
17	SYRIMEX	SYRIA	2273.1	77.8	59.0	131.3	73.5	1.3	44.3
32	CHHOTI LERMA	INDIA	2233.1	78.4	60.3	133.6	74.5	1.6	42.7
18	NAFC 63	COLOMBIA	2177.5	77.3	55.3	125.6	84.6	0.3	45.8
43	MEXICO 120	AUSTRALIA	2158.6	75.6	61.3	132.6	52.4	15.0	29.0
15	ZAMBEZI	RHODESIA	2127.5	76.9	60.0	136.0	66.8	1.0	38.3
7	36656-CJ542) YAKTANA 54 A(H)	SUDAN	2114.2	75.8	59.3	131.3	81.2	3.0	50.8
39	NAZERA 2152	ISRAEL	2114.2	76.1	60.0	133.6	69.4	0.3	45.8
49	BUCK MANANTIAL	ARGENTINA	2104.2	78.4	57.6	132.0	71.1	0.3	40.1
30	CRESPO 63	COLOMBIA	2096.4	76.1	58.0	132.0	80.4	0.6	45.5
24	HUELQUEN	CHILE	2075.3	78.4	60.6	128.0	85.5	1.6	43.5
41	SAFED LERMA	INDIA	2074.2	78.0	58.6	132.0	68.5	5.3	50.3
6	FIAMENTES	ARGENTINA	2060.9	78.6	60.6	131.3	84.6	1.0	43.7
25	IASSUL	BRAZIL	2029.7	76.1	65.3	133.6	99.0	4.3	50.1
29	LUNCI	RHODESIA	2014.2	72.4	59.0	132.6	58.4	0.0	44.3
4	CAFAZINHO	BRAZIL	1996.4	76.9	61.6	133.6	97.3	2.6	46.8
5	BONZA 55	COLOMBIA	1972.0	75.0	62.0	133.6	90.5	2.6	42.8

9	SCA 66A X TZFF-NAINARI 60 (C)	ARGENTINA	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
10	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
36	TOB) 8156	MEXICO	1886.4	79.0	59.3	128.6	58.4	0.0	41.7
22	LERMA ROJO 64 X N1CB X ANE3	SUDAN	1872.0	77.1	59.6	127.0	64.3	0.0	41.1
48	LP 301	INDIA	1868.7	75.2	59.3	129.0	55.0	0.0	48.3
50	LOCAL VARIETY		1786.4	75.4	62.3	124.3	88.0	0.6	28.9
21	CHRIS	USA	1718.7	74.3	60.0	132.0	90.5	2.3	35.8
11	CHENAB 7C	PAKISTAN	1718.7	76.3	57.0	127.0	62.6	0.0	46.8
31	ICTAP 70	MEXICO	1644.2	74.6	55.0	133.6	65.1	2.3	46.9
8	PENJAMO 62	MEXICO	1577.6	74.3	59.6	136.0	73.6	1.0	51.5
35	SELKIRK	CANADA	1570.9	76.9	59.3	125.6	85.5	1.0	40.6
1	NAINARI 60	MEXICO	1564.2	74.3	58.6	130.3	77.0	0.3	49.3
3	(TZPP-SON 64) (LR64A-TZPP X ANE3)	MEXICO	1555.3	74.6	58.3	130.3	63.5	0.0	40.7
47	SCARA 64-PLEIN FEADIDOR	ARGENTINA	1500.9	78.9	58.6	128.0	71.1	0.0	46.5
37	BT 2288	TUNISIA	1500.9	76.5	58.6	129.6	68.5	0.3	42.2
27	INIA 66	MEXICO	1475.4	76.1	55.3	129.0	61.8	0.0	48.3
40	TOBARI 66	MEXICO	1404.3	78.0	59.0	129.0	68.5	0.0	49.5
28	TIMGALEN	AUSTRALIA	1394.3	74.3	60.0	130.3	67.7	0.0	45.3
13	SCA64 X TZFF-NAINARI 60 (B)	ARGENTINA	1382.0	73.0	57.6	132.6	68.5	0.0	47.6
45	NURI 70 =(BLUEBIRD # 1)	MEXICO	1362.0	79.1	58.6	127.0	60.9	0.0	43.0
38	LERMA ROJO 64A	MEXICO	1310.9	75.2	56.6	130.3	71.9	1.0	45.3
42	YECORA 70 =(BLUEBIRD # 2)	MEXICO	1305.4	76.5	59.3	127.3	55.0	0.0	51.1
19	C-306	INDIA	1238.7	75.8	59.3	136.0	79.5	2.6	46.5
23	SAFIC 70 =(BLUEBIRD # 3)	MEXICO	1234.3	73.0	59.3	124.3	56.7	0.0	50.7
34	CAJEME 71 =(BLUEBIRD # 4)	MEXICO	1208.7	70.5	59.6	129.6	67.7	0.0	52.9
12	FAIC ARGENTINO	ARGENTINA	1145.4	51.3	58.0	136.0	64.3	0.0	43.0
44	BT 2281	TUNISIA	1023.2	76.1	60.3	136.0	66.8	0.0	44.1
26	TUFFIN 7	S. AFRICA	531.0	54.6	57.3	136.0	51.5	0.0	43.5
		GRAND MEAN	1794.7	75.2	59.3	131.0	72.4	1.5	44.6
	STANDARD ERROR OF GRAND MEAN		39.3	0.5	0.0	0.3	0.4	0.4	0.3
	COEFFICIENT OF VARIATION		26.8%	8.4%	1.4%	2.9%	8.2%	361.2%	8.9%
	LSD VARIETY MEANS 5 PC		964.0	12.7	1.6	7.7	11.9	11.0	8.0

CORRELATIONS

YIELD	KG/HA						
TEST	WEIGHT	0.47**					
DAYS TO	FLOWER	0.34*	0.15				
DAYS TO	MATURITY	0.00	-0.34*	0.12			
HEIGHT	CM.	0.32*	0.29*	0.35*	0.06		
LODGING		0.33*	0.10	0.00	-0.00	0.13	
SHATTERING		-0.11	-0.02	-0.31*	0.00	-0.08	-0.08

* SIGNIFICANT AT THE 5 LEVEL ** SIGNIFICANT AT THE 1 LEVEL

TABLE 50 NORTH AMERICA U.S.A. ARIZONA

NORTHRUP KING AND CO. YUMA.
COOPERATORS DR.R.W. ROMIG, K. DUBAS AND W. ALTHAUS.

LATITUDE	032 30° N	DATE PLANTED	11/09/70	NITROGEN	205.0 KG/HA
LONGITUDE	114 36°W	DATE HARVESTED	—/—/—	PHOSPHORUS	048.8 KG/HA
ELEVATION	+00046 M.ABOVE S.L.	AMOUNT OF MOISTURE	— — MM	POTASSIUM	000.0 KG/HA

LOCAL VARIETY DENOTED AS SUPER.X. WEATHER NORMAL UNTIL JAN 10. LOW
RECORD UP TO JAN 15. LITTLE DAMAGE TO WHEAT, SOME BURN ON LEAVES.
COLD SPELLS CAUSED SOME STERILITY. NO SERIOUS INSECT, WEED OR PEST PROBLEMS.

VARIETY NUMBER	VARIETY OR CROSS	ORIGIN	YIELD KG/HA	TEST WEIGHT	DAYS TO FLOWER	DAYS TO MATURITY	HEIGHT CM.	LODGING
22	LERMA ROJO 64 X N10B X ANE3	SUDAN	8631.4	81.2	129.0	8	93.9	66.5
17	SYRIMEX	SYRIA	8069.2	79.1	124.0	7	111.7	66.5
32	CHECTI LERMA	INDIA	7647.6	81.7	129.0	7	105.6	33.2
14	SIETE CERROS 66	MEXICO	7491.6	80.9	129.0	8	101.5	55.5
50	LOCAL VARIETY		7437.9-	80.6	130.0	7	104.1	33.2
43	MEXICO 120	AUSTRALIA	7048.3	80.4	122.0	7	76.1	0.0
15	ZAMBEZI	RHODESIA	6931.5	78.3	121.0	8	96.5	55.5
12	PATC ARGENTINE	ARGENTINA	6907.8	79.2	129.0	7	101.5	22.1
2	PITIC 62	MEXICO	6829.2	76.8	121.0	6	101.5	88.7
41	SAFED LERMA	INDIA	6651.5	80.8	123.0	6	109.2	77.6
44	BT 2281	TUNISIA	6282.6	80.5	116.0	7	99.0	22.1
26	TUFFIN 7	S. AFRICA	6257.8	76.0	128.0	8	101.5	0.0
33	SONALIKA	INDIA	6230.9	79.2	106.0	7	106.6	66.5
36	TOE X 8156	MEXICO	6203.0	79.9	121.0	7	96.5	11.0
47	SONORA 64-KLEIN REMIDOR	ARGENTINA	6083.2	79.9	120.0	6	106.6	44.3
9	SON 64A X TZPP-NAINARI 60 (C)	ARGENTINA	6081.1	79.4	116.0	6	111.7	55.5
20	VICTOR 1	ITALY	6029.4	76.9	139.0	8	104.1	88.7
13	SON64 X TZPP-NAINARI 60 (B)	ARGENTINA	6003.6	77.8	120.0	7	91.4	55.5
8	FENJAPE 62	MEXICO	6002.6	79.1	123.0	6	104.1	66.5
48	LP 301	INDIA	5954.0	77.4	124.0	7	76.1	0.0
49	BUCK MANANTIAL	ARGENTINA	5847.6	76.7	137.0	8	127.0	88.7
35	LERMA ROJO 64A	MEXICO	5817.6	80.8	120.0	7	114.2	77.6

[illegible]	[illegible]	MEXICO	5817.0	80.8	120.0	[illegible]	[illegible]	[illegible]
11	CHINAB 7C	PAKISTAN	5558.7	79.4	119.0	7	101.5	44.3
31	ECTAP 70	MEXICO	5484.9	78.7	107.0	7	99.0	22.1
40	TOBARI 66	MEXICO	5474.5	80.6	121.0	7	104.1	44.3
45	NURI 70 =(ELUEBIRC # 1)	MEXICO	5366.0	80.9	121.0	5	104.1	44.3
3	(TZPP-SON 64) (LR64A-TZPP X ANE3)	MEXICO	5272.0	80.0	123.0	7	101.5	77.6
28	TIPGALEN	AUSTRALIA	5210.0	77.6	124.0	8	93.9	66.5
37	BT 2288	TUNISIA	5005.4	78.5	109.0	7	101.5	11.0
46	PALMIRA 1	COLOMBIA	4933.1	74.7	118.0	6	121.9	55.5
16	GIZA 155	EGYPT	4817.3	76.7	118.0	6	111.7	66.5
10	GAEOTO	ARGENTINA	4785.3	78.6	130.0	8	142.2	55.5
23	SARIC 70 =(ELUEEIFC # 3)	MEXICO	4747.1	79.6	127.0	7	86.3	0.0
5	BONZA 55	COLOMBIA	4664.4	77.3	127.0	7	119.3	88.7
30	CRESPO 63	COLOMBIA	4630.3	78.2	120.0	7	93.9	66.5
39	FAZENA 2152	ISRAEL	4611.7	79.0	115.0	7	96.5	22.1
6	PIAMONTES	ARGENTINA	4582.8	80.6	130.0	8	121.9	88.7
27	INIA 66	MEXICO	4570.4	80.6	107.0	6	101.5	66.5
24	HUELQUEN	CHILE	4484.6	77.8	126.0	7	129.5	88.7
35	SELKIRK	CANADA	4415.4	72.9	141.0	8	132.0	77.6
4	CAFAZINHO	BRAZIL	4259.3	73.8	130.0	8	121.9	88.7
42	YECORA 70 =(ELLEBIRD # 2)	MEXICO	4122.9	79.7	118.0	7	86.3	0.0
1	AINARI 60	MEXICO	3740.6	74.6	120.0	5	116.8	88.7
21	CHRIS	USA	3677.6	76.5	130.0	7	132.0	88.7
29	LUNCI	RHODESIA	3060.7	73.1	109.0	7	124.4	11.0
19	C-306	INDIA	2638.0	77.4	121.0	6	96.5	77.6
18	NAPO 63	COLOMBIA	2583.3	78.1	108.0	6	114.2	55.5
25	IASSUL	BRAZIL	2243.3	72.8	130.0	6	132.0	88.7
		GRAND MEAN	5458.3	78.4	122.3		106.3	53.7
		STANDARD ERROR OF GRAND MEAN	82.4					
		COEFFICIENT OF VARIATION	18.5%					
		LSD VARIETY MEANS 5 PC	2019.8					

CORRELATIONS

YIELD	KG/HA					
TEST	WEIGHT	0.56**				
DAYS TO	FLOWER	0.18	-0.15			
DAYS TO	MATURITY	0.00	0.00	0.00		
HEIGHT	CM.	-0.39**	-0.48**	0.26	0.00	
LODGING		-0.19	-0.26	0.29*	0.00	0.56**

* SIGNIFICANT AT THE 5 LEVEL ** SIGNIFICANT AT THE 1 LEVEL

TABLE 51 NORTH AMERICA U.

UNIVERSITY OF CALIFORNIA, DAVIS.
COOPERATORS C. O. QUALSET ET AL.

LATITUDE 032 32'N DATE PLANTED
LONGITUDE 121 45'W DATE HARVESTED
ELEVATION +00016 M.ABOVE S.L. AMOUNT OF MOISTUR

LOCAL VARIETY RAMONA 50. LATE PLANTING, COOL PER

VARIETY NUMBER	VARIETY OR CROSS	ORIGIN	YIELD KG/HA
27	INIA 66	MEXICO	6630.7
31	POTAM 7C	MEXICO	6218.7
22	LERMA ROJO 64 X N10B X ANE3	SUDAN	6169.7
9	SON 64A X TZPP-NAINARI 60 (C)	ARGENTINA	6169.7
34	CAJEME 71 =(BLUEBIRD # 4)	MEXICO	6164.0
30	CRESPO 63	COLOMBIA	6124.2
13	SON64 X TZPP-NAINARI 60 (B)	ARGENTINA	6118.5
8	PENJAMO 62	MEXICO	6044.5
7	36656-CJ542 X YAKTANA 54 A(H)	SUDAN	6021.7
42	YECORA 70 =(BLUEBIRD # 2)	MEXICO	5964.8
23	SARIC 70 =(BLUEBIRD # 3)	MEXICO	5913.6
47	SONORA 64-KLEIN RENDIDOR	ARGENTINA	5822.5
33	SONALIKA	INDIA	5811.1
41	SAFED LERMA	INDIA	5777.0
45	NURI 7C =(BLUEBIRD # 1)	MEXICO	5691.6
36	TOB X 8156	MEXICO	5668.8
15	ZAMBEZI	RHODESIA	5651.9
11	CHENAB 7C	PAKISTAN	5594.8
38	LERMA ROJO 64A	MEXICO	5577.9
39	HAZERA 2152	ISRAEL	5509.5
48	UP 301	INDIA	5481.0
37	BT 2288	TUNISIA	5344.4
1	NAINARI 60	MEXICO	5316.0
14	SIETE CERROS 66	MEXICO	5310.3
28	TIMGALEN	AUSTRALIA	5298.9
3	(TZPP-SON 64) (LR64A-TZPP X ANE3)	MEXICO	5242.
2	PITIC 62	MEXICO	5207.
40	TOBARI 66	MEXICO	5168.
18	NAPO 63	COLOMBIA	5107.
32	CHHOTI LERMA	INDIA	5094.
43	MEXICO 120	AUSTRALIA	5066.
17	SYRIMEX	SYRIA	5048.
44	BT 2281	TUNISIA	5042.
49	BUCK MANANTIAL	ARGENTINA	4985.
12	PATO ARGENTINO	ARGENTINA	4900.
29	LUNDI	RHODESIA	4758.
46	PALMIRA 1	COLOMBIA	4496.
26	TUFFIN 7	S. AFRICA	4479.
24	HUELQUEN	CHILE	4416.
5	BONZA 55	COLOMBIA	4240.
16	GIZA 155	EGYPT	4228.
19	C-306	INDIA	4189.
50	LOCAL VARIETY		4166.
4	CARAZINHO	BRAZIL	4069.
10	GAECTO	ARGENTINA	3932.
20	VICTOR 1	ITALY	3780.
6	PIAMONTES	ARGENTINA	3756.
21	CHRIS	USA	3648.
35	SELKIRK	CANADA	2327.
25	IASSUL	BRAZIL	2122.
		GRAND MEAN	5097.
		STANDARD ERROR OF GRAND MEAN	34.
		COEFFICIENT OF VARIATION	8.
		LSD VARIETY MEANS 5 PC	847.

CO

YIELD KG/HA	
TEST WEIGHT	0.
DAYS TO FLOWER	-0.
DAYS TO MATURITY	-0.
STRIPE RUST	-0.
LEAF RUST	0.
HEIGHT CM.	-0.
1000 GRN WGT GRMS	0.

* SIGNIFICANT AT THE 5 LEVEL **

CALIFORNIA

2/31/71 NITROGEN 056.0 KG/HA
5/19/71 PHOSPHORUS ---.- KG/HA
0196 MM POTASSIUM ---.- KG/HA

RING HEADING. NO INSECT, WEED OR PEST PROBLEMS.

TEST WEIGHT	DAYS TO FLOWER	DAYS TO MATURITY	STRIPE RUST	LEAF RUST	HEIGHT CM.	1000 GRN WGT GRMS
82.3	87.0	128.6	15	0	105.3	40.5
77.8	87.3	127.6	50	0	93.0	33.5
80.0	97.3	137.6	0	1	85.6	28.3
79.0	90.0	129.3	0	0	106.0	27.8
80.8	94.0	128.0	0	0	80.6	46.5
78.3	90.6	132.3	2	0	120.6	30.1
77.7	91.0	130.0	0	0	100.0	38.2
79.8	92.3	128.3	40	1	103.0	34.0
76.9	91.0	131.3	60	5	107.3	36.8
80.8	91.6	127.3	0	0	75.6	43.6
79.1	93.3	128.0	0	0	76.6	38.7
78.8	90.0	129.3	10	0	102.3	34.1
79.5	87.6	127.0	2	0	109.3	44.1
79.7	93.0	130.3	0	0	107.6	34.0
81.8	92.3	129.6	0	0	94.3	35.0
77.2	92.0	133.6	60	0	85.6	27.6
75.8	96.6	136.0	0	5	91.6	28.0
77.4	89.6	130.3	5	25	102.6	35.3
80.5	92.6	130.0	5	0	114.0	35.2
78.3	89.0	128.3	5	10	95.3	37.7
78.7	95.3	131.3	5	0	69.3	38.5
80.1	88.0	129.6	0	0	102.6	34.6
76.0	91.5	128.0	20	5	118.0	35.5
75.6	99.6	135.0	60	2	100.0	26.0
77.4	92.3	129.6	5	5	106.0	31.5
81.7	92.0	130.3	5	2	100.6	32.2
72.7	95.3	132.3	10	5	108.3	28.8
81.0	90.3	130.0	0	0	104.0	34.7
78.5	87.3	127.6	0	2	121.6	32.6
79.4	95.0	133.0	80	0	94.6	28.1
77.2	91.6	130.6	70	5	68.6	32.7
77.7	94.6	133.6	1	10	101.6	29.5
78.5	91.3	134.3	0	3	98.6	30.3
79.1	101.0	137.0	0	0	126.0	27.0
77.6	95.3	131.3	0	10	100.6	24.7
76.7	89.6	127.6	10	0	87.3	25.8
74.3	91.0	127.6	10	0	126.3	37.2
72.7	93.3	129.6	100	0	64.3	36.1
76.0	96.3	133.0	5	0	121.0	28.1
75.8	94.3	131.6	0	1	132.0	32.1
76.9	91.0	128.0	0	10	120.6	30.3
73.9	89.6	131.0	0	2	127.0	34.8
0.0	85.0	125.0	90.0	0	126.6	35.5
76.9	96.6	131.3	40	0	133.3	31.5
78.5	97.3	132.3	5	0	134.3	24.8
75.4	101.0	135.6	10	0	86.6	40.0
78.6	97.6	130.0	0	2	130.0	29.3
77.4	95.3	133.0	0	0	134.6	33.2
71.4	103.0	135.3	0	1	132.6	24.0
74.0	100.6	131.0	40	0	143.0	31.6
77.9	93.0	130.7	13.3	2.3	105.5	33.1
	0.0	0.1	0.9	0.2	0.2	
	1.0%	1.3%	83.9%	144.5%	2.9%	
	1.9	3.4	22.4	6.7	6.3	

TIONS

0.19					
0.23	0.74**				
-0.56**	-0.14	-0.13			
-0.03	-0.15	0.01	0.03		
-0.19	0.16	0.04	-0.24	-0.16	
0.00	-0.43**	-0.57**	-0.00	-0.04	-0.33

FICANT AT THE 1 LEVEL

TABLE 52 NORTH AMERICA U.S.A. COLORADO

CARGILL, INC. FORT COLLINS.
COOPERATORS B.CURTIS, ET. AL.

LATITUDE	105 00'N	DATE PLANTED	03/26/71	NITROGEN	112.0 KG/HA
LONGITUDE	041 00'W	DATE HARVESTED	06/21/71	PHOSPHORUS	---.- KG/HA
ELEVATION	+01524 M.ABOVE S.L.	AMOUNT OF MOISTURE	0559 MM	POTASSIUM	---.- KG/HA

LOCAL VARIETY BOUNTY 208. PLOTS HIT BY HAIL WHILE IN BOOT STAGE.

VARIETY NUMBER	VARIETY OR CROSS	ORIGIN	YIELD KG/HA	TEST WEIGHT	DAYS TO FLOWER	LEAF RUST
24	HUELQUEN	CHILE	6491.5	81.7	86.0	MS
49	BUCK MANANTIAL	ARGENTINA	6413.1	83.0	87.0	R
2	PITIC 62	MEXICO	6014.3	75.2	87.0	S
14	SIETE CERROS 66	MEXICO	6014.3	82.3	87.0	S
22	LERMA ROJO 64 X N108 X ANE3	SUDAN	5893.4	82.3	86.0	S
12	FATC ARGENTINO	ARGENTINA	5855.3	82.3	84.0	MR
44	ET 2281	TUNISIA	5615.6	81.0	84.0	R-S
9	SON 64A X TZPP-NAINARI 60 (C)	ARGENTINA	5537.2	80.4	83.0	R
7	36896-CJ542 X YAKTANA 54 A(H)	SUDAN	5535.0	79.1	84.0	R
20	VICTOR 1	ITALY	5295.3	75.2	87.0	S
28	TINCALEN	AUSTRALIA	5295.3	79.7	87.0	R
30	CRESPO 63	COLOMBIA	5216.9	81.0	84.0	S
15	ZAPEEZI	RHODESIA	5098.2	81.0	85.0	S
40	TOBARI 66	MEXICO	5098.2	82.3	84.0	R
45	NURI 70 =(BLUEBIRD # 1)	MEXICO	5095.9	81.0	82.0	R
43	MEXICO 120	AUSTRALIA	5019.8	81.0	82.0	MR
6	PIAMONTES	ARGENTINA	5017.5	81.0	84.0	MR
8	PENJAMO 62	MEXICO	4936.9	80.4	83.0	S
50	LOCAL VARIETY		4898.8	82.3	82.0	MR
1	NAINARI 60	MEXICO	4858.5	77.2	83.0	MS
16	GIZA 155	EGYPT	4858.5	79.7	82.0	S

10	GABOTO					
32	CHHOTI LERMA	INDIA	4780.1	81.7	86.0	S
4	CARAZINHO	BRAZIL	4739.8	81.0	86.0	MR
42	YECORA 70 =(BLUEBIRD # 2)	MEXICO	4699.5	79.7	82.0	MR
3	(TZFF-SCN 64) (LR64A-TZPP X ANE3)	MEXICO	4661.4	81.0	85.0	S
39	HAZERA 2152	ISRAEL	4621.1	79.7	83.0	-
13	SCN64 X TZFF-NAINARI 60 (B)	ARGENTINA	4621.1	79.7	83.0	R
41	SAFED LERMA	INDIA	4542.7	78.5	85.0	S
21	CHRIS	USA	4500.1	81.0	87.0	MS
5	BONZA 55	COLOMBIA	4459.8	79.5	85.0	S
36	TOB X 8156	MEXICO	4459.8	81.0	84.0	MR
29	LUNDI	RHODESIA	4419.5	77.2	83.0	MS
46	PALMIRA 1	COLOMBIA	4383.6	75.2	86.0	MS-S
11	CHENAB 70	PAKISTAN	4383.6	81.7	82.0	MS
23	SAFIC 70 =(BLUEBIRD # 3)	MEXICO	4341.1	80.4	82.0	R
25	IASSUL	BRAZIL	4300.7	77.8	87.0	R
18	NAFC 63	COLOMBIA	4298.5	78.5	82.0	MS
35	SELKIRK	CANADA	4262.7	79.7	87.0	MS
47	SONORA 64-KLEIN RENDIDOR	ARGENTINA	4139.5	80.4	83.0	S
19	C-306	INDIA	4103.6	81.0	83.0	S
34	CAJEME 71 =(BLUEBIRD # 4)	MEXICO	4101.4	80.4	84.0	MR
38	LERMA ROJO 64A	MEXICO	4020.7	80.4	86.0	S
37	BT 2288	TUNISIA	3904.3	81.0	83.0	MR
33	SONALIKA	INDIA	3863.9	78.5	84.0	S
31	POTAM 70	MEXICO	3785.5	79.7	82.0	S
48	UP 301	INDIA	3626.5	78.5	83.0	R
26	TURPIN 7	S. AFRICA	3543.6	77.2	81.0	MR
27	INIA 66	MEXICO	3026.2	81.0	82.0	S
		GRAND MEAN	4764.9	80.0	84.1	
		STANDARD ERROR OF GRAND MEAN	36.3			
		COEFFICIENT OF VARIATION	9.3%			
		LSD VARIETY MEANS 5 PC	890.3			

CORRELATIONS

YIELD	KG/HA			
TEST	WEIGHT	0.25		
DAYS TO	FLOWER	0.42**	-0.04	
LEAF	RUST	0.00	0.00	0.00

* SIGNIFICANT AT THE 5 LEVEL ** SIGNIFICANT AT THE 1 LEVEL

TABLE 53 NORTH AMERICA U.S.A. IDAHO

ABERDEEN BRANCH EXPERIMENT STATION.
COOPERATORS D.W. SUNDERMAN.

LATITUDE	042 56'N	DATE PLANTED	04/14/71	NITROGEN	112.0 KG/HA
LONGITUDE	112 50'W	DATE HARVESTED	08/12/71	PHOSPHORUS	---.- KG/HA
ELEVATION	+01356 M.ABOVE S.L.	AMOUNT OF MOISTURE	---- MM	POTASSIUM	---.- KG/HA

LOCAL VARIETY NOT IDENTIFIED. PLOTS WERE DAMAGED BY TREFLAN PUT ON POTATOES IN 1970.

VARIETY NUMBER	VARIETY OR CROSS	ORIGIN	YIELD KG/HA	TEST WEIGHT	DAYS TO FLOWER	DAYS TO MATURITY	HEIGHT CM.
16	GIZA 155	EGYPT	3871.4	80.5	68.3	117.0	100.3
45	NUFI 70 =(ELLEEIFC # 1)	MEXICO	3858.0	81.9	70.0	115.0	80.0
22	LERMA ROJO 64 X N10B X ANE3	SUDAN	3688.1	81.5	70.0	117.0	81.2
8	FENJAMC 62	MEXICO	3663.8	81.0	70.0	114.5	87.6
9	SON 64A X TZFP-MAINARI 60 (C)	ARGENTINA	3637.0	79.9	70.0	115.5	87.6
40	TOLUCA 66	MEXICO	3579.1	81.3	70.0	115.5	85.0
2	PITIC 62	MEXICO	3567.9	77.3	72.3	117.0	91.4
41	SAFED LERMA	INDIA	3547.4	81.7	70.0	113.5	92.7
50	LOCAL VARIETY		3421.5	81.7	71.6	117.0	96.5
20	CRESPO 63	COLOMBIA	3384.6	81.8	69.0	117.5	107.9
17	SYRIMEX	SYRIA	3378.6	82.1	70.3	116.5	85.3
49	BUCK MANANTIAL	ARGENTINA	3374.9	83.2	70.6	117.0	105.4
44	ET 2281	TUNISIA	3314.8	81.5	69.3	114.5	81.2
24	HUELQUEN	CHILE	3278.6	80.0	74.0	115.5	113.0
15	ZAMBEZI	RHODESIA	3273.3	79.9	70.6	118.0	81.2
33	SONALIKA	INDIA	3267.4	80.4	67.3	116.0	88.8
37	ET 2288	TUNISIA	3252.9	81.5	68.3	116.0	88.8
12	FATC ARGENTINA	ARGENTINA	3245.7	81.9	70.6	117.0	86.3
14	SIETE CERROS 66	MEXICO	3245.3	80.5	72.0	119.5	88.8
32	CHILTI LERMA	INDIA	3218.8	81.9	71.3	117.0	88.8
39	HAZERA 2152	ISRAEL	3216.2	79.1	70.0	115.0	82.5
36	TOLUCA X 8156	MEXICO	3160.6	80.0	68.5	115.5	71.1

47	SCACRA 64-KLEIN RENDIDOR	ARGENTINA	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
3	(TZPP-SON 64) (LR64A-TZPP X ANE3)	MEXICO	3031.4	83.0	69.0	112.0	82.5
46	FALMIRA 1	COLOMBIA	2978.8	77.9	68.6	111.0	102.8
34	CAJEME 71 =(BLUEBIRD # 4)	MEXICO	2897.4	81.3	69.3	111.5	67.3
1	NAINARI 60	MEXICO	2894.8	78.7	68.6	111.5	91.4
23	SARIC 70 =(BLUEBIRD # 3)	MEXICO	2851.1	80.5	69.3	111.0	67.3
5	ECNZA 55	COLOMBIA	2842.9	79.1	70.3	117.0	116.8
43	MEXICO 120	AUSTRALIA	2828.3	79.8	70.3	115.5	59.6
13	SON64 X TZPP-NAINARI 60 (B)	ARGENTINA	2723.4	79.5	67.0	113.0	77.4
31	FOTAM 70	MEXICO	2682.7	81.7	64.6	111.5	77.4
11	CHENAB 70	PAKISTAN	2673.0	81.7	66.3	111.5	77.4
38	LERMA ROJO 64A	MEXICO	2670.4	82.2	68.0	113.5	92.7
42	YECORA 70 =(BLUEBIRD # 2)	MEXICO	2629.7	81.0	68.3	112.5	62.2
20	VICTOR 1	ITALY	2626.7	78.3	77.0	118.5	68.5
6	FIAMCNTES	ARGENTINA	2584.5	81.2	73.0	114.0	107.9
28	TINGALEN	AUSTRALIA	2562.9	78.8	72.0	116.0	90.1
48	UP 301	INDIA	2549.1	80.1	70.3	111.5	53.3
4	CARAZINHO	BRAZIL	2548.7	80.0	73.6	116.0	115.5
7	36896-CJ542 X YAKTANA 54 A(H)	SUDAN	2539.0	78.2	69.6	115.5	87.6
21	CHRIS	USA	2431.5	79.7	72.3	115.0	113.0
18	NAPO 63	COLOMBIA	2384.8	80.6	68.3	110.0	99.0
10	GABOTO	ARGENTINA	2366.9	81.2	71.6	115.5	111.7
29	LUNDI	RHODESIA	2262.3	77.0	69.6	114.5	66.0
19	C-306	INDIA	2244.4	81.3	66.6	117.0	110.4
35	SELKIRK	CANADA	1350.7	77.6	49.3	113.0	115.5
25	IASSUL	BRAZIL	687.6	76.7	73.3	115.5	129.5
		GRAND MEAN	2950.4	80.4	69.4	114.8	88.8
		STANDARD ERROR OF GRAND MEAN	44.7		0.5	0.1	0.4
		COEFFICIENT OF VARIATION	18.5%		8.9%	1.6%	4.5%
		LSD VARIETY MEANS 5 PC	1096.2		12.4	3.7	8.0

CORRELATIONS

YIELD KG/HA				
TEST WEIGHT	0.43**			
DAYS TO FLOWER	0.24	0.02		
DAYS TO MATURITY	0.28*	-0.00	0.37**	
HEIGHT CM.	-0.28*	-0.01	0.00	0.24

* SIGNIFICANT AT THE 5 LEVEL ** SIGNIFICANT AT THE 1 LEVEL

TABLE 54 NORTH AMERICA U.S.A. MONTANA

MONTANA EXPERIMENTAL STATION, BOZEMAN
COOPERATORS F.H. MCNEAL AND M.A.BERG.

LATITUDE	044 00'N	DATE PLANTED	05/06/71	NITROGEN	000.0 KG/HA
LONGITUDE	111 00'W	DATE HARVESTED	--/--/--	PHOSPHORUS	000.0 KG/HA
ELEVATION	+01463 M.ABOVE S.L.	AMOUNT OF MOISTURE	0203 MM	POTASSIUM	000.0 KG/HA

LOCAL VARIETY NOT IDENTIFIED. WEATHER EXCEPTIONALLY HOT AND DRY IN JULY AND AUGUST. NO DISEASE DEVELOPMENT. NO INSECT, WEED AND PEST PROBLEMS.

VARIETY NUMBER	VARIETY OR CROSS	ORIGIN	YIELD KG/HA	TEST WEIGHT	DAYS TO FLOWER	HEIGHT CM.
2	PITIC 62	MEXICO	4555.7	71.6	73.0	78.6
12	FATC ARGENTINO	ARGENTINA	4542.4	77.9	68.6	69.3
34	CAJEME 71 =(BLUEBIRD # 4)	MEXICO	4453.5	76.8	71.0	58.6
16	GIZA 155	EGYPT	4269.0	77.3	58.0	86.6
22	LERMA ROJO 64 X N10B X ANE3	SUDAN	4202.4	80.0	71.3	68.3
38	LERMA ROJO 64A	MEXICO	4171.3	77.6	67.6	78.0
24	FLELCUEN	CHILE	4122.4	76.1	73.3	95.0
17	SYRIMEX	SYRIA	4120.2	78.3	69.3	77.3
20	VICTOR 1	ITALY	4097.9	76.8	75.0	66.6
45	BLCK MANANTIAL	ARGENTINA	4084.6	73.1	70.3	86.6
3	(TZPP-SCN 64) (LR64A-TZPP X ANE3)	MEXICO	4066.8	79.1	68.3	74.3
41	SAFED LERMA	INDIA	4002.4	77.2	68.6	72.3
45	NURI 70 =(BLUEBIRD # 1)	MEXICO	4000.1	77.7	68.0	65.6
32	CHHCTI LERMA	INDIA	3993.5	77.7	70.0	71.0
33	SONALIKA	INDIA	3982.4	75.6	64.6	78.0
1	NAINARI 60	MEXICO	3960.1	74.2	69.3	81.0
4	CARAZINHC	BRAZIL	3953.5	76.4	72.0	105.0
14	SIETE CERROS 66	MEXICO	3951.3	76.9	71.6	73.6
30	CRESPO 63	COLOMBIA	3911.3	77.8	68.0	93.0
46	PALMIRA 1	COLOMBIA	3906.8	72.5	65.5	84.0
13	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

39	PAZERA 2192					
40	TCEARI 66	MEXICO	3873.5	76.7	69.0	79.6
8	PENJAMO 62	MEXICO	3873.5	77.3	70.3	75.0
44	ET 2281	TUNISIA	3829.0	78.2	65.6	66.6
15	ZAMBEZI	RHODESIA	3740.1	77.9	72.3	69.3
37	ET 2288	TUNISIA	3735.7	78.2	68.0	71.6
19	C-306	INDIA	3722.4	81.2	68.3	92.0
5	BONZA 55	COLOMBIA	3686.8	74.3	70.0	95.0
48	LP 301	INDIA	3666.8	75.6	69.3	51.3
36	TOB X 6156	MEXICO	3642.4	76.9	68.0	59.0
28	TINGALEN	AUSTRALIA	3613.5	74.7	71.0	72.3
9	SON 64A X TZPP-NAINARI 60 (C)	ARGENTINA	3604.6	76.0	68.0	71.3
10	CAEDTO	ARGENTINA	3600.1	76.1	72.3	103.0
31	POTAM 70	MEXICO	3566.8	75.4	62.0	66.3
47	SONORA 64-KLEIN RENDIDOR	ARGENTINA	3553.5	77.3	66.6	70.3
29	LUNDI	RHODESIA	3540.1	73.1	69.3	63.0
23	SAFIC 70 =(ELLEEIPC # 3)	MEXICO	3475.7	75.9	70.0	54.0
50	LOCAL VARIETY		3459.0	75.1	73.3	84.6
25	IASSUL	BRAZIL	3455.7	72.2	76.0	115.0
42	YECORA 70 =(BLLEBIRD # 2)	MEXICO	3426.8	76.4	68.3	53.0
26	TUFFIN 7	S. AFRICA	3415.7	73.2	67.6	50.0
7	36656-CJ542 X YAKTANA 54 A(H)	SUDAN	3400.1	75.2	69.3	74.3
18	NAPC 63	COLOMBIA	3360.1	75.0	67.0	88.6
21	CHRIS	USA	3357.9	75.2	70.6	102.0
11	CHENAB 70	PAKISTAN	3320.1	77.2	67.0	67.6
6	FIAPCNTES	ARGENTINA	3302.3	75.5	72.0	92.3
27	INIA 66	MEXICO	3293.4	78.6	63.6	70.3
35	SELKIRK	CANADA	3269.0	72.8	73.0	103.6
43	MEXICO 120	AUSTRALIA	3091.2	75.6	70.0	48.6
		GRAND MEAN	3779.7	76.3	69.3	76.1
	STANDARD ERROR OF GRAND MEAN		27.1		0.1	0.2
	COEFFICIENT OF VARIATION		8.8%		1.7%	4.3%
	LSD VARIETY MEANS 5 PC		665.7		2.4	6.6

CORRELATIONS

YIELD	KG/HA			
TEST	WEIGHT	0.28*		
DAYS TO	FLOWER	0.10	-0.25	
HEIGHT	CM.	0.00	-0.16	0.38**

* SIGNIFICANT AT THE 5 LEVEL ** SIGNIFICANT AT THE 1 LEVEL

CASSELTON.
COOPERATORS DEKALB AGRIC. RESEARCH.

LATITUDE 047 00'N DATE PLANTED
LONGITUDE 097 00'W DATE HARVESTED
ELEVATION +00213 M.ABOVE S.L. AMOUNT OF MOISTUR

LOCAL VARIETY BONANZA. MORE THAN ADEQUATE MOISTUR

VARIETY NUMBER	VARIETY OR CROSS	ORIGIN	YIELD KG/HA
49	BUCK MANANTIAL	ARGENTINA	5814.3
40	TCEARI 66	MEXICO	5682.3
28	TIMGALEN	AUSTRALIA	5497.6
17	SYRIMEX	SYRIA	5411.5
29	LUADI	RHODESIA	5385.1
34	CAJEME 71 =(BLUEBIRD # 4)	MEXICO	5379.5
45	NURI 70 =(BLUEBIRD # 1)	MEXICO	5333.7
7	36896-CJ542 X YAKTANA 54 A(H)	SUDAN	5257.3
36	TOB X 8156	MEXICO	5243.4
41	SAFED LERMA	INDIA	5124.0
8	FERJAMC 62	MEXICO	5094.8
4	CARAZINHO	BRAZIL	5055.9
38	LERMA ROJO 64A	MEXICO	5055.9
44	ST 2281	TUNISIA	5047.6
24	HUELQUEN	CHILE	5021.2
16	GIZA 155	EGYPT	4993.4
13	SON64 X TZPP-NAINARI 60 (B)	ARGENTINA	4986.5
50	LOCAL VARIETY		4962.8
3	(TZPP-SON 64) (LR64A-TZPP X ANE3)	MEXICO	4947.6
37	ET 2288	TUNISIA	4876.7
31	POTAM 70	MEXICO	4785.0
32	CHHOTI LERMA	INDIA	4783.7
33	SONALIKA	INDIA	4746.2
42	YECORA 70 =(BLUEBIRD # 2)	MEXICO	4729.5
48	LP 301	INDIA	4714.2
2	PITIC 62	MEXICO	4630.9
12	FAIC ARGENTINO	ARGENTINA	4671.2
9	SON 64A X TZPP-NAINARI 60 (C)	ARGENTINA	4657.3
1	NAINARI 60	MEXICO	4630.9
10	GABOTO	ARGENTINA	4596.1
21	CHRIS	USA	4594.8
14	SIETE CERROS 66	MEXICO	4462.8
43	MEXICO 120	AUSTRALIA	4430.9
23	SARIC 70 =(BLUEBIRD # 3)	MEXICO	4408.6
47	SONORA 64-KLEIN RENDIDOR	ARGENTINA	4408.6
20	VICTOR 1	ITALY	4367.0
6	FLAMENCOS	ARGENTINA	4367.0
46	PALMIRA 1	COLOMBIA	4339.2
30	CRESPO 63	COLOMBIA	4260.0
11	CHENAB 70	PAKISTAN	4257.2
26	TUFFIN 7	S. AFRICA	4232.2
15	ZAMBEZI	RHODESIA	4210.0
27	INIA 66	MEXICO	4203.1
22	LERMA ROJO 64 X N108 X ANE3	SUDAN	4157.2
5	BONZA 55	COLOMBIA	3912.8
19	C-306	INDIA	3861.4
35	SELKIRK	CANADA	3755.8
25	IASSUL	BRAZIL	3733.6
39	HAZERA 2152	ISRAEL	3623.8
18	NAPO 63	COLOMBIA	3610.0
		GRAND MEAN	4687.2
	STANDARD ERROR OF GRAND MEAN		41.7
	COEFFICIENT OF VARIATION		10.9%
	LSD VARIETY MEANS 5 PC		1022.7

	CORR
YIELD KG/HA	
TEST WEIGHT	0.35
DAYS TO FLOWER	-0.09
DAYS TO MATURITY	0.13
LEAF RUST	-0.34
STEM RUST	-0.19
HEIGHT CM.	-0.20
1000 GRN WGT GRMS	0.13

* SIGNIFICANT AT THE 5 LEVEL ** SI

N. DAKOTA

6/22/71 NITROGEN 000.0 KG/HA
0/11/71 PHOSPHORUS 000.0 KG/HA
0188 MM POTASSIUM 000.0 KG/HA

LEAF SPOT DISEASES WERE QUITE SEVERE.

TEST WEIGHT	DAYS TO FLOWER	DAYS TO MATURITY	LEAF RUST	STEM RUST	HEIGHT CM.	1000 GRN WGT GRMS
72.7	67.0	109.0	00	80S	83.0	35.0
76.5	65.0	109.0	00	TRR	75.0	36.0
74.6	68.0	109.0	TRR	TRR	76.0	36.0
74.6	67.0	110.0	70S	TRR	85.0	37.0
72.7	64.0	107.0	TRR	TRMR	69.0	37.0
76.5	63.0	105.0	00	TRR	64.0	43.5
77.2	63.0	106.0	20S	20MS	75.0	41.0
72.7	65.0	106.0	20S	TRR	82.0	42.0
75.9	63.0	105.0	40S	TRR	74.0	36.5
76.5	65.0	107.0	20S	20MS	86.0	43.0
74.6	66.0	107.0	TRMR	30S	80.0	38.5
70.1	68.0	114.0	00	TRMR	98.0	43.0
74.6	63.0	104.0	50S	TRR	80.0	40.0
76.5	64.0	108.0	60S	TRR	75.0	40.5
74.6	67.0	104.0	TRR	TRMR	98.0	41.0
75.2	65.0	110.0	40S	TRR	89.0	39.5
74.0	65.0	108.0	20S	TRR	76.0	42.0
72.7	68.0	111.0	TRR	TRMS	83.0	34.0
75.2	64.0	103.0	TRR	TRR	70.0	36.0
74.6	63.0	110.0	00	20S	80.0	39.0
75.9	61.0	102.0	30S	00	71.0	41.5
75.2	66.0	111.0	70S	TRS	79.0	36.0
73.3	61.0	104.0	50S	TRR	84.0	48.0
74.0	63.0	104.0	20S	TRR	61.0	38.5
72.7	65.0	102.0	TRR	TRR	55.0	38.5
67.5	68.0	101.0	40S	60S	82.0	30.0
75.9	64.0	109.0	20S	TRR	75.0	35.0
74.6	64.0	107.0	20MR	TRR	77.0	33.0
71.4	65.0	103.0	20S	60S	80.0	40.0
71.4	68.0	113.0	00	TRR	98.0	37.0
69.4	66.0	112.0	TRMR	TRMS	105.0	36.0
75.9	69.0	108.0	70S	TRR	78.0	34.0
75.2	64.0	103.0	30S	90S	57.0	30.0
74.6	64.0	103.0	TRMR	TRR	64.0	42.0
76.5	61.0	105.0	20S	20MR	84.0	41.5
71.4	72.0	108.0	30S	90S	72.0	36.0
74.0	68.0	110.0	TRS	30S	96.0	40.0
70.1	61.0	101.0	TRMR	00	87.0	37.0
74.6	67.0	110.0	50S	30S	95.0	37.0
74.6	62.0	105.0	90S	60S	75.0	36.0
66.2	55.0	106.0	50S	50S	57.0	34.5
71.4	68.0	111.0	70S	20S	82.0	31.0
76.5	61.0	103.0	70S	TRR	77.0	40.0
68.8	67.0	109.0	80S	90S	71.0	38.0
74.0	67.0	107.0	TRMR	TRMR	95.0	36.5
74.5	65.0	105.0	TRR	TRR	96.0	38.0
71.4	66.0	110.0	80S	TRR	92.0	39.0
69.2	72.0	111.0	TRR	30S	104.0	44.0
67.5	65.0	103.0	80S	50S	73.0	35.0
75.2	63.0	103.0	40S	TRR	91.0	36.5
73.5	65.2	106.8	27.1	16.6	80.2	38.0

ELATIONS

**
-0.42**
-0.11 0.59**
* -0.08 -0.09 -0.04
-0.42** 0.29* -0.07 0.23
-0.12 0.36** 0.47** -0.14 -0.21
0.20 -0.24 -0.03 -0.17 -0.34* 0.19

GNIFICANT AT THE 1 LEVEL

TABLE 56 NORTH AMERICA U.S.A. WASHINGTON

WASHINGTON STATE UNIVERSITY, PULLMAN.
COOPERATORS C.F. KONZAK, M.A. DAVIS, E. DONALDSON.

LATITUDE	046 42'N	DATE PLANTED	04/12/71	NITROGEN	045.0 KG/HA
LONGITUDE	117 08' W	DATE HARVESTED	--/--/--	PHOSPHORUS	---.- KG/HA
ELEVATION	+00762 M.ABOVE S.L.	AMOUNT OF MOISTURE	0592 MM	POTASSIUM	---.- KG/HA

LOCAL VARIETY NOT IDENTIFIED. WEATHER IN SPRING AND EARLY SUMMER WAS COOLER AND WETTER THAN NORMAL, FOLLOWED BY A DRY, HOT SUMMER.

VARIETY NUMBER	VARIETY OR CROSS	ORIGIN	YIELD KG/HA	TEST WEIGHT	DAYS TO FLOWER	HEIGHT CM.	1000 GRN WGT GRMS	POWDERY MILDEW
41	SAFED LERMA	INDIA	4164.0	77.8	74.0	88.0	39.2	20.0
11	CHENAB 70	PAKISTAN	4132.9	77.1	72.0	85.0	36.5	1.0
16	GIZA 155	EGYPT	4057.3	77.8	74.0	93.0	39.2	1.0
33	SONALIKA	INDIA	4017.3	77.1	71.0	98.0	44.0	20.0
17	SYRIMEX	SYRIA	3964.0	78.5	73.0	88.0	34.5	5.0
15	ZAMBEZI	RHODESIA	3924.0	76.5	76.0	83.0	31.2	1.0
32	CHHOTI LERMA	INDIA	3835.1	78.5	71.0	90.0	30.5	5.0
38	LERMA ROJO 64A	MEXICO	3835.1	78.5	72.0	90.0	39.2	35.0
2	FITIC 62	MEXICO	3799.6	72.0	80.0	98.0	33.7	5.0
31	POTAM 70	MEXICO	3737.4	77.1	71.0	80.0	38.0	1.0
23	SAFIC 70 =(BLUEBIRD # 3)	MEXICO	3732.9	77.1	78.0	65.0	39.7	1.0
45	NURI 70 =(BLUEBIRD # 1)	MEXICO	3728.5	79.7	72.0	78.0	36.0	1.0
36	TOB X 8156	MEXICO	3719.6	77.1	71.0	73.0	31.0	1.0
1	NAINARI 60	MEXICO	3666.2	74.0	76.0	105.0	38.5	5.0
9	SON 64A X TZPP-NAINARI 60 (C)	ARGENTINA	3652.9	77.1	74.0	85.0	30.2	1.0
42	YECORA 70 =(BLUEBIRD # 2)	MEXICO	3586.3	78.5	72.0	65.0	40.7	1.0
27	INIA 66	MEXICO	3577.4	79.7	71.0	78.0	40.0	20.0
37	ET 2288	TUNISIA	3555.1	79.1	71.0	78.0	37.7	1.0
29	LUNDI	RHODESIA	3532.9	73.5	72.0	78.0	33.2	1.0
40	TCEARI 66	MEXICO	3515.2	79.1	76.0	90.0	34.2	1.0
39	HAZERA 2152	ISRAEL	3488.5	75.2	76.0	78.0	38.2	5.0
22	LERMA ROJO 64 X N108 X ANE3	SUDAN	3475.2	77.8	76.0	78.0	30.5	5.0

3	(TZPP-SON 64) (LR64A-TZPP X [illegible])	[illegible]	3426.3	76.5	76.0	90.0	39.0	5.0
44	ET 2281	TUNISIA	3417.4	75.8	73.0	98.0	34.0	1.0
18	NAPO 63	COLOMBIA	3408.5	77.1	76.0	108.0	35.0	1.0
30	CRESFO 63	COLOMBIA	3346.3	77.8	71.0	55.0	40.0	1.0
48	LP 301	INDIA	3341.8	77.1	72.0	88.0	36.5	1.0
47	SONORA 64-KLEIN RENDIDOR	ARGENTINA	3341.8	79.1	73.0	85.0	31.2	20.0
12	FATC ARGENTINC	ARGENTINA	3270.7	77.1	78.0	78.0	41.0	1.0
34	CAJEME 71 =(BLUEBIRD # 4)	MEXICO	3266.3	75.8	72.0	85.0	40.7	1.0
13	SON64 X TZFF-NAINAFI 60 (B)	ARGENTINA	3217.4	78.5	78.0	100.0	32.7	10.0
49	BUCK MANANTIAL	AUSTRALIA	3195.2	77.8	72.0	60.0	36.5	10.0
43	MEXICO 120	INDIA	3079.6	81.6	78.0	113.0	43.7	1.0
19	C-306	COLOMBIA	2986.3	74.5	78.0	115.0	33.0	1.0
5	ECNZA 55	COLOMBIA	2959.7	74.5	72.0	100.0	40.2	5.0
46	PALMIRA 1	AUSTRALIA	2955.2	75.8	78.0	93.0	33.7	1.0
28	TINGALEN	ARGENTINA	2857.4	77.1	80.0	100.0	31.7	1.0
6	FIAMONTES	ITALY	2853.0	75.8	80.0	85.0	31.2	1.0
20	VICTOR 1	CHILE	2557.5	77.1	78.0	103.0	35.7	1.0
24	PUELQUEN	ARGENTINA	2657.5	77.1	78.0	120.0	30.2	20.0
10	GABOTO	BRAZIL	2635.2	76.5	78.0	125.0	35.0	10.0
4	CARAZINHO	S. AFRICA	2613.0	72.0	76.0	63.0	34.7	20.0
26	TUFFIN 7	USA	2444.1	75.2	78.0	113.0	27.5	5.0
21	CHRIS		2284.2	77.1	83.0	115.0	31.5	10.0
50	LOCAL VARIETY	CANADA	1928.6	74.5	76.0	123.0	31.7	1.0
35	SELKIRK	BRAZIL	1226.5	72.0	82.0	135.0	33.0	5.0
25	JASSUL	MEXICO	-	77.1	75.0	-	38.7	1.0
8	FENJAMO 62	SUDAN	-	75.2	75.0	-	41.2	1.0
7	[illegible]	GRAND MEAN	3178.9	76.9	75.1	90.8	35.6	5.6

STANDARD ERROR OF GRAND MEAN
COEFFICIENT OF VARIATION
LSD VARIETY MEANS 5 PC

CORRELATIONS

YIELD	KG/HA					
TEST	WEIGHT	0.31*				
DAYS TO	FLOWER	-0.38**	-0.32*			
HEIGHT	CM.	0.28*	-0.11	0.38**		
1000 GRN WGT	GRMS	0.04	0.21	-0.36**	-0.34*	
POWDERY MILDEW		0.12	0.11	-0.10	0.11	0.09

* SIGNIFICANT AT THE 5 LEVEL ** SIGNIFICANT AT THE 1 LEVEL

TABLE 57 OCEANIA AUSTRALIA QUEENSLAND

QUEENSLAND WHEAT RESEARCH INSTITUTE, TOOWOOMBA.
COOPERATORS PAUL BRENNAN, JOHN SHEPPARD, G. GRIMES.

LATITUDE	027 30' S	DATE PLANTED	06/30/71	NITROGEN	090.0 KG/HA
LONGITUDE	151 28'E	DATE HARVESTED	11/09/71	PHOSPHORUS	---.- KG/HA
ELEVATION	+00666 M.ABOVE S.L.	AMOUNT OF MOISTURE	---- MM	POTASSIUM	---.- KG/HA

LOCAL VARIETY NOT IDENTIFIED. LEAF AND STEM RUST DEVELOPED AFTER MATURITY. INSECTS AND WEEDS NO PROBLEM. SLIGHT DAMAGE BY MICE.

VARIETY NUMBER	VARIETY OR CROSS	ORIGIN	YIELD KG/HA	DAYS TO FLOWER	DAYS TO MATURITY	HEIGHT CM.	1000 GRN WGT GRMS
38	LERMA ROJO 64A	MEXICO	4160.2	89.6	127.0	94.8	43.3
43	MEXICO 120	AUSTRALIA	3869.4	86.6	125.0	65.1	37.6
32	CHRCTI LERMA	INDIA	3825.6	90.3	129.3	83.8	43.2
17	SYRIMEX	SYRIA	3815.1	90.3	126.6	85.5	42.4
27	INIA 66	MEXICO	3765.7	85.0	122.6	87.2	42.1
34	CAJEME 71 =(ELLEEIFD # 4)	MEXICO	3696.5	93.6	127.0	69.4	45.0
39	HAZERA 2152	ISRAEL	3694.7	88.0	121.6	82.1	40.9
44	ST 2281	TUNISIA	3592.8	92.0	128.6	80.4	41.2
36	TOB > E156	MEXICO	3587.9	92.6	129.0	75.3	40.6
11	CHENAB 70	PAKISTAN	3550.2	89.0	124.6	88.0	45.4
7	36656-CJ542 > YAKTANA 54 A(H)	SUDAN	3444.7	89.3	124.0	85.5	48.1
40	TCEARI 66	MEXICO	3443.4	89.3	128.3	88.8	40.3
22	LERMA ROJO 64 X N10B X ANE3	SUDAN	3411.3	90.0	127.3	70.2	39.2
33	SONALIKA	INDIA	3378.0	84.6	123.3	87.2	49.5
1	NAINARI 60	MEXICO	3356.4	89.3	123.6	93.1	46.7
14	SIETE CERROS 66	MEXICO	3313.2	96.6	130.0	79.5	40.3
15	ZAREEZI	RHODESIA	3296.5	92.0	130.3	81.2	37.9
31	POTAM 70	MEXICO	3282.3	97.3	122.0	77.0	39.4
8	PENJAMO 62	MEXICO	3240.9	89.3	128.3	82.1	42.5
42	NEGORA 70 =(ELLEBIFD # 2)	MEXICO	3216.9	89.6	121.6	66.0	41.0
28	TIPGALEN	AUSTRALIA	3216.9	90.0	129.5	81.2	39.5
2	FITIC 62	MEXICO	3195.3	90.6	125.3	83.8	41.4

48	LP 301	INDIA	3137.9	92.0	126.6	56.7	41.0
3	(TZPP-SCN 64) (LR64A-TZPP X ANE3)	MEXICO	3134.8	90.3	123.0	84.6	36.4
49	BLCK MANANTIAL	ARGENTINA	3133.5	99.0	---	93.1	---
24	FUELQUEN	CHILE	3132.9	93.3	130.3	90.5	39.8
30	CRESPO 63	COLOMBIA	3128.0	90.0	126.0	97.3	41.5
13	SON64 X TZPP-NAINARI 60 (B)	ARGENTINA	3124.3	91.0	130.0	80.4	42.9
47	SONORA 64-KLEIN RENDIDOR	ARGENTINA	3056.5	89.0	124.0	84.6	40.3
37	ET 2286	TUNISIA	3060.1	87.6	125.3	84.6	38.9
23	SARIC 70 =(BLUEBIRD # 3)	MEXICO	3036.0	92.0	121.6	60.9	45.8
45	NURI 70 =(BLUEBIRD # 1)	MEXICO	3033.5	90.3	125.3	79.5	39.7
12	FATC ARGENTINO	ARGENTINA	3015.6	92.3	130.6	80.4	35.6
26	TURPIN 7	S. AFRICA	2967.5	95.6	130.6	61.8	41.9
18	NAPO 63	COLOMBIA	2896.5	89.0	122.3	93.9	38.9
4	CARAZINHO	BRAZIL	2875.5	92.3	125.0	96.5	43.6
46	PALMIRA 1	COLOMBIA	2839.1	89.0	121.3	95.6	43.7
10	CAEOTO	ARGENTINA	2818.7	91.3	128.6	104.9	35.0
5	ECUZA 55	COLOMBIA	2816.8	85.6	125.0	103.2	40.1
16	GIZA 155	EGYPT	2707.6	91.0	129.6	93.1	44.9
9	SCN 64A X TZPP-NAINARI 60 (C)	ARGENTINA	2695.8	89.0	121.0	78.7	34.7
50	LOCAL VARIETY		2691.5	90.6	128.3	76.1	35.6
20	VICTOR 1	ITALY	2677.3	94.0	130.6	66.8	37.4
29	LUNDI	RHODESIA	2614.4	86.3	118.6	74.5	38.8
6	PIAMONTES	ARGENTINA	2487.8	95.0	127.0	90.1	38.4
19	C-306	INDIA	2144.6	89.3	126.3	98.2	41.2
25	IASSUL	BRAZIL	2030.4	91.6	127.6	107.5	42.2
35	SELKIRK	CANADA	1800.7	106.0		102.4	32.0
		GRAND MEAN	3135.5	90.8	121.2	84.2	39.9
	STANDARD ERROR OF GRAND MEAN		36.9	0.1	0.2	0.3	0.1
	COEFFICIENT OF VARIATION		14.4%	1.9%	2.3%	5.3%	4.9%
	LSD VARIETY MEANS 5 PC		903.9	3.6	5.7	9.0	3.9

CORRELATIONS

YIELD KG/HA					
DAYS TO FLOWER	-0.39**				
DAYS TO MATURITY	0.29*	-0.63**			
HEIGHT CM.	-0.31*	0.07	-0.22		
1000 GRN WGT GRMS	0.19	-0.45**	0.71**	-0.11	

* SIGNIFICANT AT THE 5 LEVEL ** SIGNIFICANT AT THE 1 LEVEL

TABLE 58 CCEANIA NEW ZEALAND PALMERSTON NORTH

CROP RESEARCH DIVISION, D.S.I.R.
CCOPERATORS DR. J.M. MCEWAN.

LATITUDE 040 30'S
LONGITUDE 172 30'E
ELEVATION +00015 M.ABOVE S.L.

DATE PLANTED 09/14/70
DATE HARVESTED --/--/--
AMOUNT OF MOISTURE 0616 MM

NITROGEN ---.- KG/HA
PHOSPHORUS 026.0 KG/HA
POTASSIUM ---.- KG/HA

LOCAL VARIETY NOT IDENTIFIED. DRY FROM LATE JANUARY THROUGH HARVESTING.
EARLY DISTRIBUTION OF LEAF RUST.

VARIETY NUMBER	VARIETY OR CROSS	ORIGIN	YIELD KG/HA	TEST WEIGHT	DAYS TO FLOWER	LEAF RUST	HEIGHT CM.	LODGING	SHATTERING
4	CARAZINHO	BRAZIL	3700.7	74.3	79.6	TR	109.2	40.0	0.0
32	CHHOTI LERMA	INDIA	3595.1	75.9	74.3	0	82.9	15.0	0.0
22	LERMA ROJO 64 X N10B X ANE3	SUDAN	3537.4	75.6	77.3	30S	72.8	5.0	0.0
15	ZAMBEZI	RHODESIA	3344.1	69.3	72.6	70S	80.4	15.0	0.0
1	NAINARI 60	MEXICO	3319.6	70.0	75.3	50S	94.8	46.6	0.0
13	SON64 X TZPP-NAINARI 60 (B)	ARGENTINA	3298.5	72.3	72.6	0	81.2	13.3	0.0
9	SCN 64A X TZPP-NAINARI 60 (C)	ARGENTINA	3257.4	71.5	70.6	0	83.8	28.3	40.0
47	SCNCRA 64-KLEIN RENDIDOR	ARGENTINA	3245.2	74.6	71.6	0	82.9	10.0	0.0
28	TIMGALEN	AUSTRALIA	3244.1	70.6	77.0	0	82.1	26.6	0.0
49	BUCK MANANTIAL	ARGENTINA	3196.3	78.3	78.6	0	105.5	20.0	0.0
2	PITIC 62	MEXICO	3194.1	70.3	77.0	10MS	91.4	26.6	0.0
44	ET 2281	TUNISIA	3193.0	72.3	72.0	30MS	79.5	20.0	5.0
34	CAJEME 71 =(BLUEBIRD # 4)	MEXICO	3147.4	73.2	75.0	0	71.9	3.3	5.0
30	CRESPO 63	COLOMBIA	3144.1	75.1	75.0	2MR	99.9	40.0	0.0
7	3E8S6-CJ542 X YAKTANA 54 A(H)	SUDAN	3106.3	73.4	72.0	2MR	84.6	60.0	0.0
37	ET 2288	TUNISIA	3075.2	73.7	70.0	0	82.9	26.6	5.0
48	UP 301	INDIA	3069.6	67.1	73.0	0	59.2	0.0	60.0
14	SIETE CERROS 66	MEXICO	3058.5	70.2	75.6	30MS	86.3	20.0	0.0
3	(TZPP-SCN 64) (LF64A-TZPP X ANE3)	MEXICO	3054.1	73.4	73.0	0	88.0	40.0	20.0
33	SONALIKA	INDIA	3051.9	69.6	68.0	TR	79.5	20.0	0.0
21	CHRIS	USA	3050.8	74.1	76.0	0	107.5	53.3	0.0
18	NAPO 63	COLOMBIA	3029.6	70.2	70.0	50S	100.7	60.0	5.0

24	HUELGUEN	CHILE	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	.0	0.0
12	PATO ARGENTINO	ARGENTINA	3004.1	72.9	75.0	1MR	80.4	5.0	0.0
42	YECORA 70 =(ELUEBIRD # 2)	MEXICO	2970.8	69.3	72.0	0	61.8	0.0	0.0
8	PENJAMO 62	MEXICO	2967.4	74.3	73.6	TR	85.5	33.3	0.0
35	SELKIRK	CANADA	2963.0	70.2	80.6	20MS	92.2	46.6	0.0
45	NURI 70 =(BLUEBIRD # 1)	MEXICO	2933.0	72.9	72.0	0	77.0	20.0	0.0
36	TCE X 8156	MEXICO	2924.1	75.5	72.6	2MR	70.2	8.3	0.0
10	GABOTO	ARGENTINA	2884.1	75.4	78.0	0	105.8	60.0	0.0
27	INIA 66	MEXICO	2883.0	73.7	69.3	0	80.4	10.0	20.0
41	SAFED LERMA	INDIA	2854.1	74.9	72.6	0	85.5	46.6	0.0
26	TURPIN 7	S. AFRICA	2794.1	69.4	73.6	70S	59.2	0.0	0.0
5	ECNZA 55	COLOMBIA	2789.7	70.6	76.0	50S	101.5	60.0	0.0
39	HAZERA 2152	ISRAEL	2705.2	73.4	74.6	50S	81.2	40.0	0.0
50	LOCAL VARIETY		2509.7	71.9	75.0	20MS	104.1	40.0	0.0
11	CHENAB 70	PAKISTAN	2603.0	70.0	71.3	50S	80.4	26.6	40.0
43	MEXICO 120	AUSTRALIA	2548.6	71.2	76.6	TR	60.1	0.0	0.0
40	TOBARI 66	MEXICO	2514.1	67.1	72.0	0	86.3	20.0	0.0
16	GIZA 155	EGYPT	2507.5	69.7	72.6	30MS	97.3	46.6	0.0
31	POTAM 70	MEXICO	2389.7	67.1	68.0	0	78.7	40.0	20.0
6	FIAPCNTES	ARGENTINA	2374.2	75.4	79.3	0	105.8	46.6	0.0
29	LUNCI	RHODESIA	2314.2	71.4	72.0	,30S	71.9	10.0	0.0
20	VICTOR 1	ITALY	2301.9	73.4	83.0	2MR	69.4	5.0	40.0
25	IASSUL	BRAZIL	2256.4	73.2	80.0	0	115.1	33.3	60.0
38	LERMA ROJO 64A	MEXICO	2224.2	74.9	72.0	TR	88.0	40.0	0.0
19	C-306	INDIA	2143.1	70.3	73.0	50S	99.0	40.0	20.0
46	PALMIRA 1	COLOMBIA	2095.3	70.3	71.0	20MS	95.6	73.3	20.0
23	SARIC 70 =(ELUEBIRD # 3)	MEXICO	1970.9	72.9	74.6	0	63.4	1.6	0.0
		GRAND MEAN	2889.5	72.3	74.0	14.9	85.9	28.9	7.1
	STANDARD ERROR OF GRAND MEAN		58.7		0.0	0.8	0.3	0.8	
	COEFFICIENT OF VARIATION		24.9%		0.8%	68.1%	5.5%	34.1%	
	LSD VARIETY MEANS 5 PC		1439.4		1.2	20.3	9.6	19.8	

CORRELATIONS

YIELD	KG/HA						
TEST	WEIGHT	0.21					
DAYS TO	FLOWER	0.03	0.32*				
LEAF	RUST	-0.00	-0.28*	-0.02			
HEIGHT	CM.	0.02	0.30*	0.30*	-0.07		
LODGING		-0.11	0.09	0.04	0.05	0.76**	
SHATTERING		-0.26	-0.23	0.00	-0.06	-0.05	-0.09

* SIGNIFICANT AT THE 5 LEVEL ** SIGNIFICANT AT THE 1 LEVEL

TABLE 59 SOUTH AMERICA ARGENTINA

ESTACION EXP. REGIONAL AGROPECUARIA BALCARCE INTA.
COOPERATORS E.R. ERNIE R.A BEDOGNI AND A. CORCHADO.

LATITUDE	037 45'S	DATE PLANTED	08/19/71
LONGITUDE	058 18' W	DATE HARVESTED	12/24/71
ELEVATION	+00130 M.ABOVE S.L.	AMOUNT OF MOISTURE	0904 MM

LOCAL VARIETY NOT IDENTIFIED. DURING NOVEMBER SEVERAL DAYS WERE

VARIETY NUMBER	VARIETY OR CROSS	ORIGIN	YIELD KG/HA	TEST WEIGHT	DA F
12	PATO ARGENTINO	ARGENTINA	3644.0	79.4	
42	YECORA 70 =(BLUEBIRD # 2)	MEXICO	3588.5	75.6	
34	CAJEME 71 =(BLUEBIRD # 4)	MEXICO	3332.9	73.1	
48	UP 301	INDIA	3321.8	73.8	
23	SAFIC 70 =(BLUEBIRD # 3)	MEXICO	3310.7	72.0	
45	NURI 70 =(BLUEBIRD # 1)	MEXICO	3277.4	79.7	
15	ZAMBEZI	RHODESIA	3244.1	78.3	
39	HAZERA 2152	ISRAEL	3210.7	72.9	
33	SONALIKA	INDIA	3166.3	74.0	
7	66656-CJ542 > YAKTANA 54 A(H)	SUDAN	3155.2	74.2	
27	INIA 66	MEXICO	3099.6	76.5	
2	PITIC 62	MEXICO	3077.4	70.9	
36	TCE X 8156	MEXICO	3066.3	75.6	
50	LOCAL VARIETY		2999.6	72.9	
32	CHHOTI LERMA	INDIA	2955.2	80.7	
13	SON64 X TZPP-NAINARI 60 (B)	ARGENTINA	2955.2	72.9	
41	SAFED LERMA	INDIA	2955.2	76.7	
31	FCTAM 70	MEXICO	2944.1	71.1	
26	TURPIN 7	S. AFRICA	2888.5	67.1	
40	TCEARI 66	MEXICO	2866.3	78.5	
37	ET 2288	TUNISIA	2833.0	77.8	
9	SON 64A X TZPP-NAINARI 60 (C)	ARGENTINA	2810.8	76.7	
22	LERMA ROJO 64 X N10B X ANE3	SUDAN	2755.2	79.7	
47	SONORA 64-KLEIN RENDIDOR	ARGENTINA	2755.2	75.1	
17	SYRIMEX	SYRIA	2744.1	74.2	
3	(TZPP-SON 64) (LR64A-TZPP X ANE3)	MEXICO	2721.9	77.8	
44	ET 2281	TUNISIA	2710.8	77.0	
29	LUNDI	RHODESIA	2699.7	74.2	
38	LERMA ROJO 64A	MEXICO	2633.0	74.5	
43	MEXICO 120	AUSTRALIA	2595.7	69.8	
28	TIMGALEN	AUSTRALIA	2488.6	78.3	
8	FERJAMC 62	MEXICO	2421.9	72.0	
16	GIZA 155	EGYPT	2377.5	77.2	
19	C-306	INDIA	2377.5	76.0	
30	CRESPO 63	COLOMBIA	2321.9	75.0	
1	NAINARI 60	MEXICO	2288.6	72.9	
14	SIETE CERROS 66	MEXICO	2199.7	76.3	
49	BUCK MANANTIAL	ARGENTINA	2144.2	81.5	
10	CABCTC	ARGENTINA	2144.2	77.6	
18	MARC 63	COLOMBIA	2133.1	72.5	
11	CHENAB 70	PAKISTAN	2099.7	73.3	
20	VICTOR 1	ITALY	2099.7	75.8	
24	HUELQUEN	CHILE	2044.2	79.1	
46	PALMIRA 1	COLOMBIA	2022.0	69.5	
21	CHRIS	USA	1910.9	75.8	
4	CAPPZINHO	BRAZIL	1810.9	76.7	
5	BONZA 55	COLOMBIA	1799.8	72.0	
6	PIAMONTES	ARGENTINA	1777.5	77.6	
35	SELKIRK	CANADA	1433.1	71.8	
25	IASSUL	BRAZIL	477.7	71.8	
		GRAND MEAN	2613.9	75.1	
		STANDARD ERROR OF GRAND MEAN	25.8		
		COEFFICIENT OF VARIATION	12.1%		
		LSD VARIETY MEANS 5 PC	632.6		

CORRELATIONS

YIELD	KG/HA		
TEST	WEIGHT	0.11	
DAYS TO	FLOWER	-0.57**	0.15
DAYS TO	MATURITY	-0.40**	0.17
STRIPE	RUST	-0.22	0.16
LEAF	RUST	-0.02	0.13
HEIGHT	CM.	-0.57**	0.09
LODGING		-0.50**	-0.03
SHATTERING		-0.38**	-0.20
SEPTORIA	TRITICI	0.26	-0.07
FROST	DAMAGE	0.29*	0.02

* SIGNIFICANT AT THE 5 LEVEL ** SIGNIFICANT AT T

BUENOS AIRES

NITROGEN 036.0 KG/HA
PHOSPHORUS 094.0 KG/HA
POTASSIUM 000.0 KG/HA

COLD WITH FREEZING TEMPERATURES.

S TO WER	DAYS TO MATURITY	STRIPE RUST	LEAF RUST	HEIGHT CM.	LODGING	SHATTERING	SEPTORIA TRITICI	FROST DAMAGE
77.0	121.0	0	-	88.3	0.0	0.0	11.0	3.3
75.0	121.0	0	-	78.3	0.0	6.6	37.0	33.3
81.0	121.0	10MR	-	73.3	0.0	13.3	29.5	3.3
76.0	121.0	20MS	-	66.6	0.0	6.6	40.6	20.0
81.0	121.0	10MR	-	76.6	0.0	6.6	25.8	3.3
74.0	121.0	10MS	-	85.0	0.0	0.0	40.6	43.3
77.0	121.0	20MS	-	86.6	0.0	3.3	0.0	33.3
77.0	121.0	0	5MS	95.0	0.0	0.0	11.0	20.0
74.0	121.0	10MS	5MS	96.6	0.0	6.6	0.0	23.3
74.0	121.0	-	5MS	91.6	0.0	0.0	0.0	36.6
79.0	121.0	30MS	20MS	88.3	0.0	0.0	36.9	35.0
81.0	121.0	10MS	TMR	96.6	0.0	0.0	11.0	15.0
78.0	121.0	10M>	5MS	80.0	0.0	0.0	29.5	20.0
78.0	121.0	10MR	-	83.3	0.0	11.6	14.7	36.6
80.0	121.0	50S	50S	90.0	0.0	0.0	22.1	0.0
77.0	121.0	30MS	0	93.3	0.0	0.0	18.4	15.0
77.0	121.0	5MS	30S	95.0	0.0	0.0	25.8	13.3
73.0	121.0	-	TRS	85.0	0.0	13.3	22.1	13.3
78.0	121.0	50S	-	78.3	0.0	0.0	44.3	15.0
76.0	121.0	10MS	TRS	98.3	0.0	0.0	18.4	33.3
75.0	121.0	5MR	TRS	83.3	10.0	6.6	25.8	8.3
76.0	121.0	20MS	-	91.6	0.0	1.0	22.1	36.6
84.0	127.0	T	30MS	85.0	0.0	0.0	14.7	0.0
73.0	121.0	40S	-	90.0	0.0	8.3	33.2	26.6
78.0	121.0	0	20S	93.3	0.0	0.0	29.5	20.0
79.0	121.0	10MR	TMS	90.0	0.0	5.0	29.5	23.3
74.0	121.0	TRS	TRS	85.0	0.0	0.0	3.6	26.6
75.0	121.0	60S	-	78.3	0.0	6.6	37.0	3.3
75.0	121.0	30MS	20S	96.6	6.6	0.0	33.2	23.3
77.0	121.0	10MS	5MS	68.3	0.0	3.3	0.0	26.6
82.0	121.0	30MS	-	85.0	0.0	8.3	18.4	20.0
77.0	121.0	TMS	TMS	90.0	0.0	0.0	0.0	23.3
76.0	121.0	0	5MS	100.0	0.0	0.0	11.0	16.6
77.0	121.0	0	40S	103.3	50.0	0.0	40.6	40.0
78.0	121.0	TMS	TMR	105.0	0.0	0.0	22.1	0.0
77.0	121.0	30MS	-	103.3	0.0	0.0	25.8	26.6
79.0	121.0	30MS	TMS	91.6	0.0	10.0	29.5	21.6
88.0	127.0	70S	-	100.0	38.3	1.6	3.6	16.6
82.0	121.0	10MS	-	93.3	13.3	0.0	22.1	21.6
74.0	121.0	0	30S	98.3	13.3	0.0	11.0	26.6
76.0	121.0	20MS	10S	91.6	0.0	23.3	22.1	30.0
86.0	127.0	10MS	5MS	78.3	0.0	3.3	0.0	0.0
83.0	127.0	0	TMS	90.0	20.0	0.0	18.4	3.3
74.0	121.0	10MR	5MS	95.0	46.6	0.0	25.8	8.3
83.0	121.0	40MS	-	93.3	6.6	0.0	7.3	23.3
85.0	127.0	10MS	10MS	103.3	3.3	0.0	14.7	3.3
81.0	127.0	20MS	TMS	105.0	26.6	0.0	14.7	13.3
83.0	121.0	30MS	TMS	95.0	3.3	0.0	0.0	3.3
92.0	127.0	0	-	98.3	13.3	0.0	14.7	6.6
86.0	121.0	50S	10S	110.0	23.3	63.3	11.0	3.3
78.1	121.8	10.9	6.0	90.3	5.4	4.1	19.6	18.3
		0.8	0.4	0.7	0.7	0.6	1.1	1.0
		100.3%	96.2%	10.2%	156.2%	202.4%	74.0%	71.4%
		21.9	11.6	18.5	17.1	16.9	29.1	26.2

0.67**							
0.22	0.09						
-0.05	-0.03	-0.03					
0.24	0.16	0.09	0.22				
0.25	0.30*	0.19	0.23	0.42			
0.10	-0.14	0.19	-0.06	0.07	0.07		
-0.30*	-0.25	0.07	0.23	-0.22	0.02	-0.00	
-0.56**	-0.40**	-0.08	0.03	-0.01	-0.05	-0.11	0.13

HE 1 LEVEL

ESTACION EXP. REGIONAL AGROPECUARIA, MARCOS JUARE
COOPERATORS WHEAT STAFF

LATITUDE 032 42' S DATE PLANTED
LONGITUDE 062 07'W DATE HARVESTED
ELEVATION +00110 M.ABOVE S.L. AMOUNT OF MOISTUR

LOCAL VARIETY MARCOS JUAREZ INTA.

VARIETY NUMBER	VARIETY OR CROSS	ORIGIN	YIELD KG/HA
9	SCN 64A X TZPP-NAINARI 60 (C)	ARGENTINA	2970.0
23	SARIC 70 =(BLUEBIRD # 3)	MEXICO	2880.0
34	CAJEME 71 =(BLUEBIRD # 4)	MEXICO	2780.0
31	FOTAP 70	MEXICO	2660.0
33	SONALIKA	INDIA	2570.0
45	AURI 70 =(BLUEBIRD # 1)	MEXICO	2570.0
37	BT 2288	TUNISIA	2530.0
47	SCACFA 64-KLEIN REMOLDOR	ARGENTINA	2490.0
48	LP 3C1	INDIA	2440.0
44	ET 2281	TUNISIA	2430.0
27	INIA 66	MEXICO	2340.0
43	MEXICO 120	AUSTRALIA	2340.0
8	PENJAMO 62	MEXICO	2270.0
40	TOBARI 66	MEXICO	2250.0
17	SYRIMEX	SYRIA	2240.0
3	(TZPP-SON 64) (LR64A-TZPP X ANE3)	MEXICO	2230.0
36	TOB X 8156	MEXICO	2190.0
29	LUNDI	RHODESIA	2180.0
15	ZAMBEZI	RHODESIA	2160.0
14	SIETE CERROS 66	MEXICO	2140.0
13	SON64 X TZPP-NAINARI 60 (B)	ARGENTINA	2120.0
18	NAFC 63	COLOMBIA	2100.0
32	CHHOTI LERMA	INDIA	2060.0
38	LERMA ROJO 64A	MEXICO	2020.0
22	LERMA ROJO 64 X N10B X ANE3	SUDAN	2020.0
30	CRESFO 63	COLOMBIA	1990.0
12	PATC ARGENTINA	ARGENTINA	1960.0
41	SAFFC LERMA	INDIA	1920.0
26	TUFFIN 7	S. AFRICA	1910.0
39	HAZERA 2152	ISRAEL	1900.0
1	NAINARI 60	MEXICO	1860.0
11	CHENAB 70	PAKISTAN	1840.0
28	TIMGALEN	AUSTRALIA	1840.0
7	36656-CJ542 X YAKTANA 54 A(H)	SUDAN	1810.0
2	FITIC 62	MEXICO	1790.0
42	VECCHA 70 =(BLUEBIRD # 2)	MEXICO	1770.0
24	HUELQUEN	CHILE	1700.0
25	BASSUL	BRAZIL	1660.0
10	GAECTC	ARGENTINA	1580.0
50	LOCAL VARIETY		1560.0
5	BONZA 55	COLOMBIA	1560.0
6	PIAMONTES	ARGENTINA	1510.0
21	CHRIS	USA	1460.0
46	PALMIRA 1	COLOMBIA	1430.0
16	GIZA 155	EGYPT	1390.0
4	CARAZINHO	BRAZIL	1220.0
19	C-306	INDIA	1220.0
49	BUCK MANANTIAL	ARGENTINA	1210.0
20	VICTOR 1	ITALY	970.0
35	SELKIRK	CANADA	430.0

GRAND MEAN	1969.3
STANDARD ERROR OF GRAND MEAN	27.7
COEFFICIENT OF VARIATION	17.2%
LSD VARIETY MEANS 5 PC	679.1

	CORR
YIELD KG/HA	
TEST WEIGHT	0.31
DAYS TO FLOWER	-0.66
DAYS TO MATURITY	-0.38
LEAF RUST	-0.03
HEIGHT CM.	-0.54
1000 GRN WGT GRMS	0.47
SEPTORIA SPP.	0.29

* SIGNIFICANT AT THE 5 LEVEL ** SI

ITINA PROV. DE CORDOBA

07/24/71 NITROGEN ---.- KG/HA
11/18/71 PHOSPHORUS ---.- KG/HA
0273 4N POTASSIUM ---.- KG/HA

TEST WEIGHT	DAYS TO FLOWER	DAYS TO MATURITY	LEAF RUST	HEIGHT CM.	1000 GRN WGT GRMS	SEPTORIA SPP.
77.6	76.0	114.0	5MR	75.0	27.7	44.3
74.5	85.0	117.0	0	60.0	33.0	33.2
73.1	83.0	117.0	0	65.0	30.2	44.3
71.3	74.0	110.0	0	65.0	22.7	33.2
77.0	74.0	112.0	65S	80.0	31.8	22.1
79.2	80.0	114.0	0	80.0	29.2	33.2
79.0	74.0	112.0	0	80.0	26.2	66.5
77.2	79.0	112.0	0	80.0	31.9	44.3
72.7	82.0	116.0	0	50.0	28.5	55.5
78.7	78.0	114.0	25S	70.0	27.0	33.2
78.1	75.0	112.0	60S	80.0	29.4	33.2
73.0	81.0	116.0	65S	50.0	22.9	22.1
77.2	82.0	117.0	20S	75.0	27.9	44.3
79.2	78.0	112.0	50S	75.0	27.0	44.3
77.0	84.0	117.0	50S	85.0	26.1	33.2
78.3	83.0	117.0	35S	75.0	24.6	0.0
75.8	76.0	112.0	10S	70.0	24.6	55.5
73.1	75.0	110.0	25S	70.0	25.0	44.3
76.0	82.0	117.0	0	80.0	24.8	55.5
75.8	85.0	119.0	65S	75.0	22.6	66.5
72.9	86.0	119.0	0	75.0	28.0	55.5
74.0	75.0	111.0	30S	90.0	26.8	55.5
77.2	81.0	117.0	60S	90.0	23.8	33.2
75.0	78.0	114.0	45S	85.0	24.1	33.2
76.7	86.0	117.0	65S	70.0	21.6	33.2
76.7	80.0	114.0	50S	95.0	22.0	44.3
76.7	83.0	114.0	0	80.0	21.4	0.0
74.5	80.0	114.0	65S	85.0	27.4	33.2
63.9	84.0	114.0	0	50.0	25.3	66.5
70.9	75.0	114.0	65S	70.0	26.8	33.2
71.3	85.0	118.0	0	85.0	29.1	22.1
70.7	84.0	117.0	65S	75.0	23.9	55.5
75.8	85.0	119.0	0	80.0	26.8	55.5
72.2	81.0	114.0	45S	80.0	27.0	0.0
69.1	84.0	114.0	25S	80.0	24.0	33.2
73.3	76.0	112.0	0	60.0	27.8	55.5
77.6	84.0	117.0	10MS	90.0	25.9	44.3
75.0	88.0	119.0	15S	100.0	27.5	11.0
78.3	89.0	121.0	0	90.0	23.7	33.2
77.6	84.0	117.0	0	85.0	31.6	22.1
71.8	86.0	105.0	30S	80.0	23.5	22.1
78.7	88.0	120.0	20S	85.0	25.3	33.2
77.0	86.0	117.0	0	95.0	21.7	22.1
70.2	81.0	116.0	65S	95.0	25.0	33.2
76.7	84.0	114.0	40S	90.0	25.5	44.3
77.6	87.0	118.0	0	90.0	25.2	22.1
76.5	83.0	114.0	15S	100.0	26.8	22.1
75.4	94.0	119.0	0	110.0	20.9	0.0
65.2	88.0	121.0	65S	65.0	20.6	22.1
64.6	95.0	121.0	5MS	100.0	22.8	33.2
74.8	82.1	115.3	24.9	79.2	25.9	35.7

LATIONS

**	-0.22					
**	-0.03	0.72**				
	-0.07	0.04	-0.08			
**	0.29*	0.36	0.21	-0.02		
**	0.22	-0.32	-0.15	-0.22	-0.17	
*	-0.07	0.16	-0.11	-0.09	-0.35**	0.14

GNIFICANT AT THE 1 LEVEL

TABLE 61 SOUTH AMERICA ARGE

ESTACION EXP. REGIONAL AGROPECUARIA, PERGAMINO.
COOPERATORS R.J. PEGANTE ET AL.

LATITUDE 033 56'S DATE PLANTED
LONGITUDE 060 33' W DATE HARVESTED
ELEVATION +00065 M.ABOVE S.L. AMOUNT OF MOISTURE

LOCAL VARIETY NOT IDENTIFIED. LOW TEMPERATURES AT F

VARIETY NUMBER	VARIETY OR CROSS	ORIGIN	YIELD KG/HA
30	CRESPO 63	COLOMBIA	1562.0
8	FENJAMO 62	MEXICO	1551.0
28	TINGALEN	AUSTRALIA	1485.0
34	CAJEME 71 =(BLUEBIRD # 4)	MEXICO	1463.0
14	SIETE CERROS 66	MEXICO	1309.0
6	PIAMONTES	ARGENTINA	1221.0
12	FAIC ARGENTINO	ARGENTINA	1199.0
15	ZAMBEZI	RHODESIA	1199.0
7	36896-CJ542 X YAKTANA 54 A(H)	SUDAN	1177.0
1	NAINARI 60	MEXICO	1144.0
13	SCA64 X TZPP-NAINARI 60 (B)	ARGENTINA	1100.0
23	SARIC 70 =(BLUEBIRD # 3)	MEXICO	1100.0
25	IASSUL	BRAZIL	1089.0
11	CHENAB 70	PAKISTAN	1056.0
4	CARAZINHO	BRAZIL	1045.0
17	SYRIMEX	SYRIA	1023.0
36	TOB) 8156	MEXICO	1023.0
9	SCA 64A X TZPP-NAINARI 60 (C)	ARGENTINA	1023.0
22	LERMA ROJO 64 X NIGB X ANE3	SUDAN	1012.0
49	BUCK MANANTIAL	ARGENTINA	990.0
5	BONZA 55	COLOMBIA	984.5
29	LUNDI	RHODESIA	979.0
45	NURI 70 =(BLUEBIRD # 1)	MEXICO	968.0
10	CAEOTO	ARGENTINA	935.0
43	MEXICO 120	AUSTRALIA	869.0
21	CHRIS	USA	869.0
44	ET 2281	TUNISIA	847.0
27	INIA 66	MEXICO	847.0
24	HUELGUEN	CHILE	847.0
33	SONALIKA	INDIA	803.0
2	PITIC 62	MEXICO	797.5
37	BT 2288	TUNISIA	770.0
41	SAFED LERMA	INDIA	748.0
38	LERMA ROJO 64A	MEXICO	715.0
42	MECORA 70 =(BLUEBIRD # 2)	MEXICO	715.0
31	ICTAP 70	MEXICO	693.0
32	CHHOTI LERMA	INDIA	682.0
46	PALMIRA 1	COLOMBIA	660.0
26	TUFFIN 7	S. AFRICA	616.0
20	VICTOR 1	ITALY	594.0
39	HAZERA 2152	ISRAEL	594.0
18	NAFC 63	COLOMBIA	583.0
3	(TZPP-SON 64) (LR64A-TZPP X ANE3)	MEXICO	561.0
47	SONORA 64-KLEIN REDIDOR	ARGENTINA	561.0
16	GIZA 155	EGYPT	550.0
48	UP 301	INDIA	539.0
40	TOBARI 66	MEXICO	539.0
35	SELKIRK	CANADA	319.0
19	C-306	INDIA	231.0
50	LOCAL VARIETY		-

GRAND MEAN	901.7
STANDARD ERROR OF GRAND MEAN	18.9
COEFFICIENT OF VARIATION	25.5%
LSD VARIETY MEANS 5 PC	460.6

CORRE

YIELD	KG/HA	
TEST	WEIGHT	0.39*
DAYS TO	FLOWER	0.02
LEAF	RUST	-0.12
HEIGHT	CM.	0.03
LODGING		0.19
1000 GRN	WGT GRMS	-0.12
SEPTORIA	TRITICI	-0.02
FROST	DAMAGE	-0.33*

* SIGNIFICANT AT THE 5 LEVEL ** SIGI

NA BUENOS AIRES

17/71 NITROGEN ---.- KG/HA
--/-- PHOSPHORUS ---.- KG/HA
0 MM POTASSIUM ---.- KG/HA

ERING STAGE PRODUCED STERILITY.

TEST IGHT	DAYS TO FLOWER	LEAF RUST	HEIGHT CM.	LODGING	1000 GRN WGT GRMS	SEPTORIA TRITICI	FROST DAMAGE
78.5	99.0	100S	120.0	30.0	20.0	33.2	0.0
78.5	98.0	10MS	100.0	0.0	28.0	33.2	20.0
75.8	106.0	TMS	95.0	40.0	24.0	33.2	10.0
79.8	100.0	0	80.0	0.0	36.0	22.1	20.0
75.4	105.0	60S	95.0	0.0	22.0	33.2	10.0
79.0	107.0	50S	120.0	40.0	20.0	11.0	10.0
78.1	93.0	5S	95.0	0.0	22.0	55.5	20.0
79.7	93.0	0	90.0	0.0	28.0	66.5	20.0
75.0	94.0	100S	105.0	0.0	36.0	22.1	0.0
74.5	105.0	TR	120.0	1.0	28.0	22.1	0.0
76.5	99.0	TR	90.0	0.0	28.0	11.0	30.0
76.3	99.0	0	70.0	0.0	32.0	44.3	20.0
76.7	110.0	100S	120.0	40.0	26.0	0.0	0.0
69.1	93.0	100S	95.0	0.0	24.0	66.5	20.0
77.0	108.0	60S	125.0	20.0	29.0	11.0	0.0
79.4	93.0	100S	100.0	0.0	28.0	11.0	10.0
77.6	93.0	40MS	80.0	0.0	28.0	44.3	20.0
78.7	95.0	TMR	95.0	0.0	24.0	55.5	20.0
78.1	105.0	100S	80.0	0.0	22.0	55.5	10.0
73.8	110.0	0	115.0	1.0	20.0	0.0	30.0
71.8	103.0	40S	125.0	5.0	24.0	22.1	20.0
73.6	97.0	20MS	80.0	0.0	24.0	22.1	30.0
81.2	97.0	0	90.0	0.0	28.0	22.1	20.0
78.1	106.0	0	100.0	50.0	24.0	22.1	10.0
74.7	93.0	80S	65.0	0.0	28.0	22.1	30.0
76.3	105.0	1MS	125.0	20.0	24.0	22.1	10.0
78.3	96.0	100S	90.0	0.0	28.0	33.2	10.0
79.0	94.0	100S	100.0	0.0	32.0	11.0	30.0
75.0	100.0	20MS	110.0	10.0	24.0	66.5	30.0
77.6	93.0	100S	110.0	1.0	36.0	44.3	20.0
66.8	102.0	80S	105.0	0.0	24.0	11.0	20.0
79.1	94.0	20S	95.0	0.0	28.0	22.1	30.0
75.8	97.0	100S	105.0	0.0	28.0	44.3	10.0
76.3	95.0	100S	110.0	0.0	32.0	55.5	20.0
77.2	96.0	0	75.0	0.0	28.0	22.1	30.0
73.1	93.0	10MS	90.0	0.0	28.0	66.5	10.0
76.7	99.0	80S	100.0	0.0	20.0	55.5	10.0
70.5	99.0	80S	115.0	0.0	40.0	33.2	40.0
61.5	99.0	TMS	70.0	0.0	26.0	66.5	20.0
79.0	111.0	100S	85.0	0.0	24.0	11.0	0.0
75.0	97.0	100S	95.0	0.0	32.0	22.1	20.0
71.8	94.0	40S	120.0	5.0	26.0	55.5	30.0
77.2	93.0	30S	95.0	5.0	24.0	22.1	20.0
75.8	96.0	TR	90.0	0.0	24.0	33.2	20.0
79.7	99.0	100S	120.0	1.0	30.0	22.1	10.0
73.1	97.0	0	65.0	0.0	32.0	66.5	20.0
78.1	96.0	40S	90.0	0.0	28.0	11.0	30.0
64.6	121.0	TR	105.0	10.0	24.0	11.0	20.0
71.3	100.0	80S	115.0	30.0	28.0	22.1	30.0
-	-	-	-	-	-	-	-
75.6	99.3	45.4	98.5	6.3	27.0	32.1	17.7

TIONS

-0.22						
0.07	-0.10					
-0.00	0.32*	0.27				
0.06	0.47**	-0.01	0.41**			
0.05	-0.35**	0.17	-0.11	-0.31*		
-0.16	-0.45**	-0.12	-0.29*	-0.27	0.00	
-0.23	-0.34*	-0.27*	-0.23	-0.34*	0.21	0.08

FICANT AT THE 1 LEVEL

TABLE 62 SOUTH AMERICA BRAZIL RIO GRANDE DO SUL

ESTACAO EXPERIMENTAL FITOTECNICA DE JULIO DE CASTILHOS
COOPERATORS P.A.T.

LATITUDE	029 13'S	DATE PLANTED	06/16/71	NITROGEN	030.0 KG/HA
LONGITUDE	053 40'W	DATE HARVESTED	--/--/--	PHOSPHORUS	057.0 KG/HA
ELEVATION	+00529 M.ABOVE S.L.	AMOUNT OF MOISTURE	---- MM	POTASSIUM	007.0 KG/HA

LOCAL VARIETY IAS 52. CLIMATIC CONDITIONS, INSECT, WEED AND PEST PROBLEMS NOT REPORTED.

VARIETY NUMBER	VARIETY OR CROSS	ORIGIN	YIELD KG/HA	TEST WEIGHT	DAYS TO FLOWER	LEAF RUST	HEIGHT CM.	1000 GRN WGT GRMS	MILDEW
50	LOCAL VARIETY		4012.3	76.7	92.0	20S	110.0	27.1	0.0
1	NAINARI 60	MEXICO	3374.0	70.5	92.0	TRMR	90.0	38.0	0.0
14	SIETE CERROS 66	MEXICO	3154.3	71.6	89.0	20S	82.5	42.8	0.0
28	TINGALEN	AUSTRALIA	3023.4	74.5	92.0	TRS	82.5	39.5	0.0
25	IASSUL	BRAZIL	2587.6	68.2	95.0	60S	105.0	33.0	0.0
31	FORTAM 70	MEXICO	2544.4	70.9	79.0	TRMS	77.5	35.2	0.0
13	SON64 X TZPP-NAINARI 60 (B)	ARGENTINA	2534.5	69.5	89.0	5MS	77.5	43.5	0.0
45	NURI 70 =(BLUEBIRD # 1)	MEXICO	2324.6	75.0	86.0	TRMR	82.5	38.5	0.0
40	IGUARI 66	MEXICO	2295.0	75.6	86.0	15S	82.5	37.2	0.0
9	SON 64A X TZPP-NAINARI 60 (C)	ARGENTINA	2240.7	75.8	79.0	TRR	80.0	43.0	0.0
34	CAJEME 71 =(BLUEBIRD # 4)	MEXICO	2198.7	68.9	86.0	0	67.5	40.0	0.0
42	YECORA 70 =(BLUEBIRD # 2)	MEXICO	2193.8	71.6	79.0	0	60.0	46.0	0.0
33	SONALIKA	INDIA	2170.3	71.8	79.0	0	90.0	35.5	0.0
10	GABOTO	ARGENTINA	2149.3	79.0	92.0	TRMR	97.5	44.2	0.0
47	SONORA 64-KLEIN RENDIDOR	ARGENTINA	2118.5	70.7	86.0	0	80.0	45.6	0.0
6	PIAMONTES	ARGENTINA	2108.6	77.0	92.0	20S	92.5	40.5	0.0
23	SARIC 70 =(BLUEBIRD # 3)	MEXICO	2059.2	68.2	86.0	0	65.0	44.0	0.0
46	PALMIRA 1	COLOMBIA	2055.5	72.7	89.0	5MR	90.0	32.2	0.0
38	LERMA ROJO 64A	MEXICO	2033.3	73.3	79.0	5MS	92.5	37.6	0.0
30	CRESPO 63	COLOMBIA	1922.2	72.0	89.0	20S	95.0	45.8	0.0
16	GIZA 155	EGYPT	1895.0	74.7	89.0	20S	90.0	35.3	0.0
15	ZAMBEZI	RHODESIA	1870.3	74.0	86.0	10S	77.5	38.6	0.0
24	HUELQUEN	CHILE	1855.9	70.7	86.0	TRMS	90.0	40.5	0.0

29	LUADI	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	31.6	0.0
37	ET 2288	TUNISIA	1703.7	77.6	86.0	10MS	78.0	34.8	0.0
48	LP 301	INDIA	1703.7	76.0	86.0	0	62.5	37.0	0.0
27	INIA 66	MEXICO	1646.9	75.0	79.0	20S	77.5	34.5	0.0
11	CHENAB 70	PAKISTAN	1640.7	71.8	89.0	30S	77.5	34.8	0.0
39	HAZERA 2152	ISRAEL	1593.8	71.3	86.0	10S	75.0	35.2	0.0
7	36896-CJ542 X YAKTANA 54 A(H)	SUDAN	1590.1	68.2	79.0	TRS	90.0	34.5	0.0
12	FAIC ARGENTINA	ARGENTINA	1581.4	73.6	86.0	10S	77.5	46.5	0.0
5	BONZA 55	COLOMBIA	1570.3	59.1	89.0	15MS	92.5	48.0	0.0
35	SELKIRK	CANADA	1567.8	67.3	117.0	TRMR	—	39.3	0.0
8	PENJAMO 62	MEXICO	1556.7	75.0	89.0	TRS	80.0	33.0	0.0
21	CHRIS	USA	1417.2	74.0	89.0	10S	90.0	44.1	0.0
2	FITIC 62	MEXICO	1412.3	64.1	89.0	10S	82.5	46.3	0.0
43	MEXICO 120	AUSTRALIA	1392.5	70.2	86.0	10MS	60.0	44.8	0.0
36	TGE X 8156	MEXICO	1392.5	73.8	86.0	5MS	75.0	40.2	0.0
3	(TZPP-SON 64) (LR64A-TZPP X ANE3)	MEXICO	1325.9	74.5	86.0	10MS	80.0	43.5	0.0
44	ET 2281	TUNISIA	1217.2	74.4	79.0	5MS	75.0	35.1	0.0
17	SYRIMEX	SYRIA	1193.8	68.5	86.0	5MR	82.5	43.5	0.0
32	CHHOTI LERMA	INDIA	1181.4	69.3	86.0	0	80.0	48.6	0.0
41	SAFED LERMA	INDIA	1138.2	66.8	86.0	10MS	87.5	37.1	0.0
18	NAPO 63	COLOMBIA	1135.8	65.7	79.0	20S	90.0	45.0	0.0
49	BUCK MANANTIAL	ARGENTINA	990.1	72.7	117.0	0	—	51.5	0.0
19	C-306	INDIA	987.6	71.8	89.0	10S	90.0	42.8	0.0
20	VICTOR 1	ITALY	949.3	62.0	95.0	30S	62.5	54.5	0.0
22	LERMA ROJO 64 X N108 X ANE3	SUDAN	928.3	74.5	92.0	10S	65.0	48.6	0.0
26	TURPIN 7	S. AFRICA	823.4	59.1	89.0	0	57.5	47.0	0.0
		GRAND MEAN	1838.3	71.8	88.0	8.7	81.5	40.5	
		STANDARD ERROR OF GRAND MEAN	40.9				0.4		
		COEFFICIENT OF VARIATION	27.3%				5.2%		
		LSD VARIETY MEANS 5 PC	1003.9				8.6		

CORRELATIONS

YIELD	KG/HA						
TEST	WEIGHT	0.32*					
DAYS TO	FLOWER	-0.06	-0.07				
LEAF	RUST	0.07	-0.09	0.10			
HEIGHT	CM.	0.37**	0.20	-0.58**	0.34*		
1000 GRN	WGT GRMS	-0.44**	-0.41**	0.18	-0.09	-0.33*	
MILDEW		0.00	0.00	0.00	0.00	0.00	0.00

* SIGNIFICANT AT THE 5 LEVEL ** SIGNIFICANT AT THE 1 LEVEL

TABLE 63 SOUTH AMERICA COLOMBIA

ICA.
COOPERATORS M. ZAPATA, R.LOPEZ, D.VARELA, H.GAVIRIA.

LATITUDE 004 36'N DATE PLANTED 03/18/71
LONGITUDE 075 04'W DATE HARVESTED 09/19/71
ELEVATION +02640 M.ABOVE S.L. AMOUNT OF MOISTURE ---- MM

LOCAL VARIETY ZIPA 68. CLIMATIC CONDITIONS. INSECTS, WEEDS

VARIETY NUMBER	VARIETY OR CROSS	ORIGIN	YIELD KG/HA	TEST WEIGHT
27	INIA 66	MEXICO	7221.4	71.9
22	LERMA ROJO 64 X N10B X ANE3	SUDAN	6665.9	69.2
23	SARIC 70 =(BLUEBIRD # 3)	MEXICO	6577.1	69.6
33	SONALIKA	INDIA	6488.2	71.4
45	NURI 70 =(BLUEBIRD # 1)	MEXICO	6482.6	73.5
42	NECORA 70 =(BLUEBIRD # 2)	MEXICO	6199.3	70.1
31	POTAM 70	MEXICO	6149.3	69.5
17	SYRIMEX	SYRIA	5893.8	67.9
9	SON 64A X TZPP-NAINARI 60 (3)	ARGENTINA	5649.4	63.5
13	SON64 X TZPP-NAINARI 60 (8)	ARGENTINA	5338.3	70.7
48	UP 301	INDIA	5255.0	65.7
36	TCE X 8156	MEXICO	5056.1	68.7
44	BT 2281	TUNISIA	4999.4	69.4
8	FERNANDO 62	MEXICO	4910.6	67.7
40	TOBARI 66	MEXICO	4743.9	70.2
34	CAJEME 71 =(BLUEBIRD # 4)	MEXICO	4563.9	67.6
38	LERMA ROJO 64A	MEXICO	4482.8	67.0
15	ZAMBEZI	RHODESIA	4357.3	67.0
50	LOCAL VARIETY		4349.5	69.6
30	CRESPO 63	COLOMBIA	4327.3	69.3
3	(TZFF-SON 64) (LR64A-TZPP X ANE3)	MEXICO	4316.2	66.2
47	SONORA 64-KLEIN RENDIDOR	ARGENTINA	4194.0	66.6
41	SAFEC LERMA	INDIA	4182.9	68.3
37	BT 2288	TUNISIA	4177.3	70.5
18	NAPO 63	COLOMBIA	4010.7	67.8
11	CHENAB 70	PAKISTAN	3555.1	65.8
1	NAINARI 60	MEXICO	3527.4	55.7
16	GIZA 155	EGYPT	3471.8	68.9
29	LUNDI	RHODESIA	3416.3	62.4
46	PALMIRA 1	COLOMBIA	3299.6	66.9
12	PATO ARGENTINO	ARGENTINA	3244.1	70.0
26	TURPIN 7	S. AFRICA	3227.4	63.4
2	FITIC 62	MEXICO	3166.3	61.3
24	HUELQUEN	CHILE	3093.0	69.6
39	HAZERA 2152	ISRAEL	3049.6	61.5
6	PIAMONTES	ARGENTINA	2638.6	67.8
5	BONZA 55	COLOMBIA	2621.9	66.1
32	CHHOTI LERMA	INDIA	2599.7	64.3
7	66656-CJ542 X YAKTANA 54 A(H)	SUDAN	2199.7	61.3
25	IASSUL	BRAZIL	2177.5	70.3
21	CHRIS	USA	2099.7	69.9
49	BUCK MANANTIAL	ARGENTINA	2016.4	62.9
10	GAECTO	ARGENTINA	1599.8	61.9
19	C-306	INDIA	1560.9	65.7
28	TIPGALEN	AUSTRALIA	1555.3	61.3
20	VICTOR 1	ITALY	1527.6	64.5
14	SIETE CERROS 66	MEXICO	1310.9	61.3
4	CARAZINHO	BRAZIL	1055.4	61.9
35	SELKIRK	CANADA	966.5	61.7
43	MEXICO 120	AUSTRALIA	461.0	61.3
		GRAND MEAN	3800.7	66.8
		STANDARD ERROR OF GRAND MEAN	47.6	0.1
		COEFFICIENT OF VARIATION	15.3%	2.3%
		LSD VARIETY MEANS 5 PC	1168.1	3.1

CORRELATIONS

YIELD KG/HA		
TEST WEIGHT	0.73**	
DAYS TO FLOWER	-0.64**	-0.49
DAYS TO MATURITY	-0.36**	-0.30
STRIPE RUST	-0.58**	-0.66
HEIGHT CM.	-0.40**	-0.05
LODGING	-0.35**	-0.02
1000 GRN WGT GRMS	0.60**	0.68
SEPTORIA SPP.	0.09	-0.01
ROOT ROT	-0.63**	-0.61

* SIGNIFICANT AT THE 5 LEVEL ** SIGNIFICANT

TIBAITATA

NITROGEN 000.0 KG/HA
PHOSPHORUS 000.0 KG/HA
POTASSIUM 000.0 KG/HA

PEST PROBLEMS NOT REPORTED.

AYS TO FLOWER	DAYS TO MATURITY	STRIPE RUST	HEIGHT CM.	LODGING	1000 GRN WGT GRMS	SEPTORIA SPP.	ROOT ROT
69.0	145.0	0	86.6	23.3	47.7	0.0	40.0
81.6	173.3	0	78.3	0.0	31.1	5.3	40.0
82.3	166.6	0	71.6	0.0	45.3	5.3	40.0
67.6	138.3	10MR	90.0	40.0	46.9	13.3	53.3
73.3	148.3	5R	78.3	36.6	43.5	6.6	26.6
72.0	145.0	5MR	63.3	0.0	45.5	15.0	40.0
67.6	141.6	20MS	76.6	26.6	42.5	1.6	40.0
77.0	168.3	10S	91.6	66.6	37.6	0.0	53.3
74.0	151.6	50MS	86.6	16.6	35.1	0.0	46.6
78.3	170.0	10MR	83.3	0.0	45.6	10.0	45.6
75.6	146.6	0	56.6	0.0	37.5	5.0	20.0
75.0	163.3	10MR	70.0	0.0	34.7	5.0	40.0
71.6	170.0	0	81.6	46.6	37.4	0.0	26.6
78.6	148.3	10MR	86.6	76.6	39.9	8.3	40.0
75.6	158.3	5R	85.0	30.0	36.1	1.6	46.6
83.6	156.6	0-TR	75.0	36.6	45.0	1.6	40.0
73.0	145.0	MS-S	88.3	66.6	35.1	3.3	40.0
78.0	160.0	10MR	76.6	5.0	32.2	26.6	46.6
78.3	148.3	TR	95.0	53.3	38.9	8.3	40.0
79.0	165.0	5R	58.3	80.0	35.8	2.3	20.0
76.3	155.0	MS-S	85.0	46.6	36.1	0.0	46.6
73.3	173.3	60MS	88.3	36.6	36.5	5.0	60.0
76.6	151.6	5MS	90.0	76.6	29.4	0.0	40.0
71.6	150.0	0	85.0	30.0	37.6	1.6	46.6
72.0	148.3	20MR	91.6	70.0	39.1	10.0	60.0
76.3	150.0	S-MR	88.3	6.6	38.6	10.0	93.3
85.3	156.6	S-MS	96.6	63.3	41.1	3.3	73.3
74.3	155.0	TR	96.6	71.6	39.8	16.6	60.0
72.6	136.6	70S	68.3	0.0	34.1	20.0	53.3
74.6	143.3	20MS	93.3	63.3	39.9	8.3	40.0
74.0	151.6	R-MR	83.3	40.0	34.5	0.0	40.0
83.0	163.3	5R	60.0	0.0	36.5	0.0	73.3
80.3	161.6	MS-S	88.3	66.6	31.1	3.3	66.6
79.6	151.6	TR	85.0	83.3	36.9	26.6	73.3
79.6	156.6	20MR	85.0	30.0	32.7	23.3	60.0
94.0	178.3	TR	110.0	56.6	41.1	0.0	53.3
85.0	176.6	R-MS	116.6	80.0	34.3	0.3	60.0
76.6	155.0	S-MR	90.0	26.6	29.9	13.3	53.0
74.6	153.3	70S	93.3	20.0	32.9	11.6	80.0
85.6	155.0	R-MS	118.3	90.0	46.0	3.3	60.0
81.0	165.0	TR	106.6	91.6	34.7	0.0	46.6
94.0	183.3	15MS	111.6	73.3	37.2	3.3	40.0
86.0	160.0	70S	105.0	70.0	27.5	1.6	86.6
81.0	151.6	MR-R	103.3	90.0	34.8	3.3	80.0
82.0	160.0	50MS	81.6	81.6	32.3	0.0	93.3
103.3	183.3	10R	75.0	3.3	38.1	1.6	60.0
80.0	178.3	MS-S	85.0	40.0	26.0	6.6	100.0
99.0	176.6	R-MS	115.0	60.0	34.2	0.0	53.3
101.0	176.6	100S	110.0	56.6	29.3	0.0	53.3
85.6	153.3	100S	58.3	0.0	20.0	0.0	100.0
79.4	158.4	18.6	87.6	42.5	36.8	5.8	53.9
0.1	0.4	0.7	0.4	1.7	0.3	0.5	0.9
1.8%	3.6%	50.0%	6.8%	51.3%	11.6%	108.3%	21.2%
2.9	11.6	18.6	11.9	43.7	8.5	12.7	22.9

0.70**						
0.28*	0.06					
0.38**	0.33*	0.06				
0.17	0.07	-0.02	0.74**			
-0.25	-0.26	-0.54**	0.00	-0.03		
-0.27*	-0.32*	-0.07	-0.19	-0.19	0.06	
0.24	0.10	0.64**	0.09	0.07	-0.46**	0.08

THE 1 LEVEL.

TABLE 64 SOUTH AMERICA CHILE

ESTACION EXPERIMENTAL LAS VEGAS, HUELQUEN.
COOPERATORS ING. JUSTO MAYORGA V.

LATITUDE	033 51' S	DATE PLANTED	08/20/70
LONGITUDE	070 41' W	DATE HARVESTED	12/24/70
ELEVATION	+00390 M. ABOVE S.L.	AMOUNT OF MOISTURE	0165 MM

LOCAL VARIETY HUELQUEN. MEDIUM TEMPERATURE 17°C. MILD AND SUMMER. NO INSECT, WEED OR PEST PROBLEMS.

VARIETY NUMBER	VARIETY OR CROSS	ORIGIN	YIELD KG/HA	TEST WEIGHT
17	SYRIMEX	SYRIA	7136.6	84.8
33	SONALIKA	INDIA	6580.0	83.5
38	LERMA ROJO 64A	MEXICO	6150.0	85.5
8	FENJAPC 62	MEXICO	6096.6	82.5
30	CRESPO 63	COLOMBIA	5956.6	83.8
12	FATC ARGENTINC	ARGENTINA	5843.3	83.6
22	LERMA ROJO 64 X N10B X ANE3	SUDAN	5823.3	84.8
9	SCA 64# X TZPP-NAINARI 60 (C)	ARGENTINA	5703.3	82.1
19	C-3C6	INDIA	5693.3	84.8
15	ZAMBEZI	RHODESIA	5673.3	83.0
40	TOBARI 66	MEXICO	5623.3	83.8
14	SIETE CERROS 66	MEXICO	5500.0	84.0
46	PALMIRA 1	COLOMBIA	5496.6	81.3
2	PITIC 62	MEXICO	5476.6	79.8
32	CHHOTI LERMA	INDIA	5430.0	84.5
5	BONZA 55	COLOMBIA	5413.3	81.1
13	SCA64 X TZPP-NAINARI 60 (B)	ARGENTINA	5373.3	81.6
1	NAINARI 60	MEXICO	5336.6	81.8
24	HUELQUEN	CHILE	5276.6	82.8
11	CHENAB 70	PAKISTAN	5253.3	82.8
16	GIZA 155	EGYPT	5136.6	83.1
34	CAUEPE 71 =(BLUEBIRD # 4)	MEXICO	5106.6	83.1
35	SELKIRK	CANADA	4990.0	81.1
37	ET 2288	TUNISIA	4950.0	82.5
45	NURI 70 =(BLUEBIRD # 1)	MEXICO	4850.0	84.6
43	MEXICO 120	AUSTRALIA	4836.6	84.3
31	FOTAP 70	MEXICO	4816.6	83.8
28	TIMGALEN	AUSTRALIA	4733.3	81.8
20	VICTOR 1	ITALY	4660.0	81.8
23	SARIC 70 =(BLUEBIRD # 3)	MEXICO	4646.6	83.8
21	CHRIS	USA	4606.6	82.1
10	GABOTO	ARGENTINA	4593.3	81.8
7	36896-CJ542 X YAKTANA 54 A(H)	SUDAN	4583.3	80.3
44	ET 2281	TUNISIA	4576.6	83.1
36	TOB X 8156	MEXICO	4550.0	83.6
27	INIA 66	MEXICO	4546.6	84.3
49	BUCK MANANTIAL	ARGENTINA	4506.6	84.6
18	NAPO 63	COLOMBIA	4480.0	82.0
41	SAFED LERMA	INDIA	4433.3	83.5
47	SONORA 64-KLEIN RENDIDOR	ARGENTINA	4326.6	84.0
50	LOCAL VARIETY		4186.6	80.8
3	(TZPP-SON 64) (LR64A-TZPP X ANE3)	MEXICO	4166.6	83.5
42	YECORA 70 =(BLUEBIRD # 2)	MEXICO	4153.3	84.1
48	LP 301	INDIA	4020.0	84.0
25	IASSUL	BRAZIL	3926.6	82.0
39	HAZERA 2152	ISRAEL	3866.6	83.0
6	PIAMONTES	ARGENTINA	3803.3	83.5
29	LUPCI	RHODESIA	3766.6	80.3
4	CARAZINHO	BRAZIL	3523.3	80.0
26	TUFFIN 7	S. AFRICA	3230.0	79.8
		GRAND MEAN	4948.3	82.8
		STANDARD ERROR OF GRAND MEAN	78.6	0.0
		COEFFICIENT OF VARIATION	19.4%	0.8%
		LSD VARIETY MEANS 5 PC	1927.6	1.4

CORRELATIONS

YIELD KG/HA		
TEST WEIGHT	0.35**	
DAYS TO FLOWER	-0.07	-0.23
DAYS TO MATURITY	0.22	-0.08
STRIPE RUST	-0.29*	-0.48
LEAF RUST	0.22	0.26
HEIGHT CM.	0.16	-0.21
SHATTERING	-0.07	0.09
1000 GRN WGT GRMS	0.29*	0.19

* SIGNIFICANT AT THE 5 LEVEL ** SIGNIFICANT

PAINE

NITROGEN 048.0 KG/HA
PHOSPHORUS 048.0 KG/HA
POTASSIUM ---.- KG/HA

ORT WINTER. LONG SPRING AND

DAYS TO FLOWER	DAYS TO MATURITY	STRIPE RUST	LEAF RUST	HEIGHT CM.	SHATTERING	1000 GRN WGT GRMS
71.6	123.3	0	60S	95.0	7.6	32.3
66.6	121.6	TR	60S	93.3	5.5	38.0
68.6	118.3	0	60S	104.3	3.1	34.0
66.6	120.0	TR	0	94.6	0.0	34.8
71.6	124.0	10MR	0	116.6	6.3	32.8
71.3	121.3	0	0	87.6	3.1	29.0
74.0	122.0	0	0	77.6	0.0	32.3
56.0	116.6	TR	0	90.6	6.3	29.3
64.0	120.6	10MR	0	125.0	0.0	33.8
70.6	124.6	0	0	87.6	2.7	31.0
68.0	118.0	0	10R	94.6	1.0	33.3
71.3	123.3	5R	10MR	88.3	5.0	32.5
68.3	113.6	60S	10MR	122.6	5.5	32.1
71.6	119.6	TR	5R	99.0	1.3	34.0
71.3	118.6	0	60S	87.0	3.2	31.8
72.6	119.3	10MR	5R	120.3	0.0	32.5
56.0	115.6	60S	0	88.0	0.0	33.6
69.3	116.3	10MR	0.0	105.0	0.0	36.2
71.3	122.0	0	25MS	112.0	1.7	32.0
65.6	121.0	25MS	60S	88.3	8.9	33.3
68.6	123.3	0	0	111.6	0.0	33.3
70.3	111.3	0	0	67.6	4.1	33.8
80.6	125.3	0	0	124.0	1.8	31.1
64.3	118.3	5R	0	92.6	1.4	31.1
68.0	113.3	0	0	87.3	0.0	32.0
56.0	112.6	0	60S	60.6	2.2	33.8
65.6	114.3	TR	5R	83.0	6.0	31.6
71.0	115.0	10MR	0	90.6	2.0	28.8
76.6	122.3	25MS	0	73.3	5.4	28.5
70.6	111.6	0	0	65.0	7.1	34.1
71.6	124.6	0	0	122.0	1.7	29.8
74.0	122.6	5R	0	122.6	1.1	27.8
67.3	120.3	0	60S	91.6	3.3	32.8
66.0	120.3	0	10MR	83.0	0.0	32.5
58.0	124.0	30MS	5R	76.3	8.4	29.6
62.6	116.6	0	60S	91.6	3.3	32.8
75.0	123.0	0	0	107.0	0.0	29.6
65.0	113.0	0	30MS	112.3	5.2	30.0
71.3	113.0	0	60S	82.6	0.0	35.0
65.3	112.0	0	0	83.3	16.6	32.5
72.0	124.3	0	25MS	109.3	4.1	32.8
69.3	117.3	0	10MR	90.0	1.8	30.3
56.0	112.6	0	0	62.6	1.7	34.8
70.3	113.0	0	0	65.0	7.1	34.1
74.3	123.6	25MS	5R	131.3	8.2	30.8
63.3	118.0	0	60S	87.3	5.3	33.6
74.3	123.6	0	0	114.6	0.0	30.1
68.6	115.6	10MR	0	77.6	0.0	30.8
74.3	125.0	60S	5R	114.0	5.2	31.8
71.0	112.3	60S	0	56.6	1.4	31.0
69.5	118.6	5.8	11.2	94.3	3.2	32.1
0.1	0.1	0.5	0.6	0.4	0.2	0.0
2.3%	1.5%	129.5%	73.0%	5.6%	82.4%	3.4%
3.2	3.7	15.1	16.3	10.7	5.3	2.1

0.48**					
0.09	-0.07				
-0.22	-0.02	-0.18			
0.28*	0.56**	-0.01	-0.11		
-0.15	-0.12	0.12	0.13	-0.17	
-0.36**	-0.27*	-0.16	0.39**	-0.18	-0.03

T THE 1 LEVEL

TABLE 65 SOUTH AMERICA CHILE SANTIAGO

ESTACION EXPERIMENTAL LA PLATINA
COOPERATORS I.RAMIREZ, ET AL.

LATITUDE	032 27'S	DATE PLANTED	07/10/71	NITROGEN	128.0 KG/HA
LONGITUDE	070 38'W	DATE HARVESTED	--/--/--	PHOSPHORUS	053.0 KG/HA
ELEVATION	+00629 M.ABOVE S.L.	AMOUNT OF MOISTURE	0231 MM	POTASSIUM	---.- KG/HA

LOCAL VARIETY NOT IDENTIFIED. LATE SPRING AND EARLY SUMMER DRY AND WITH HIGH TEMPERATURES.

VARIETY NUMBER	VARIETY OR CROSS	ORIGIN	YIELD KG/HA	DAYS TO FLOWER	STRIPE RUST	STEM RUST	HEIGHT CM.	LODGING
47	SONORA 64-KLEIN RENDIDOR	ARGENTINA	6171.5	108.0	TR	5S	98.3	5.0
45	NURI 70 =(BLUEBIRD # 1)	MEXICO	6066.0	108.0	5MR	5S	91.6	0.0
34	CAJEME 71 =(BLUEBIRD # 4)	MEXICO	6027.1	109.0	0	30MS	75.0	5.0
9	SON 64A X TZPP-NAINARI 60 (C)	ARGENTINA	6010.5	108.0	TR	TR	98.3	0.0
33	SONALIKA	INDIA	5804.9	98.0	0	70S	100.0	5.0
23	SAFIC 70 =(BLUEBIRD # 3)	MEXICO	5754.9	110.0	0	TR	71.6	0.0
44	BT 2281	TUNISIA	5671.6	102.0	0	TR	96.6	5.0
37	ET 2288	TUNISIA	5388.3	99.0	0	TR	95.0	20.0
15	ZAMBEZI	RHODESIA	5349.4	110.0	0	40S	90.0	0.0
24	HUELQUEN	CHILE	5343.9	111.0	0	20S	115.0	50.0
13	SON64 X TZPP-NAINARI 60 (B)	ARGENTINA	5316.1	108.0	30S	5R	96.6	10.0
17	SYRIMEX	SYRIA	5266.1	108.0	0	40MS	101.6	10.0
22	LERMA ROJO 64 X N108 X ANE3	SUDAN	5255.0	112.0	0	40S	83.3	20.0
31	POTAM 70	MEXICO	5243.9	99.0	0	10S	85.0	0.0
38	LERMA ROJO 64A	MEXICO	5243.9	108.0	0	30S	110.0	40.0
41	SAFED LERMA	INDIA	5105.0	108.0	TR	40MS	108.3	10.0
7	36896-CJ542 X YAKTANA 54 A(H)	SUDAN	5088.3	107.0	0	10S	101.6	0.0
30	CRESPO 63	COLOMBIA	5077.2	107.0	0	20S	115.0	90.0
14	SIETE CERROS 66	MEXICO	5066.1	112.0	0	40S	95.0	20.0
32	CHHOTI LERMA	INDIA	5032.8	107.0	5R	5MR	96.6	5.0
40	TOBARI 66	MEXICO	4943.9	101.0	0	20S	98.3	5.0
39	HAZERA 2152	ISRAEL	4938.3	101.0	20S	70S	91.6	0.0
18	NAPO 63	COLOMBIA	4921.7	101.0	0	5R	118.3	10.0

[illegible]								
1	NAINARI 60	MEXICO	4866.1	105.0	0	30S	115.0	5.0
16	GIZA 155	EGYPT	4866.1	108.0	0	5MR	115.0	50.0
8	FENJAMC 62	MEXICO	4793.9	107.0	0	5S	98.3	50.0
50	LOCAL VARIETY		4743.9	113.0	0	TR	83.3	0.0
27	INIA 66	MEXICO	4732.8	99.0	0	40S	93.3	0.0
43	MEXICO 120	AUSTRALIA	4666.1	107.0	10S	40S	70.0	5.0
11	CHENAB 70	PAKISTAN	4632.8	109.0	0	20MS	96.6	0.0
12	PATO ARGENTINC	ARGENTINA	4538.4	109.0	0	TR	96.6	5.0
3	(TZPP-SON 64) (LR64A-TZPP X ANE3)	MEXICO	4443.9	108.0	0	0	93.3	30.0
29	LUNDI	RHODESIA	4427.3	108.0	40S	40S	83.3	0.0
46	PALMIRA 1	COLOMBIA	4316.2	109.0	20S	10S	120.0	80.0
2	PITIC 62	MEXICO	4110.6	108.0	0	70S	100.0	5.0
48	LP 301	INDIA	4105.1	110.0	0	TR	65.0	0.0
36	TOE X 8156	MEXICO	4032.9	108.0	0	30S	83.3	0.0
21	CHRIS	USA	3899.6	110.0	0	0	130.0	90.0
19	C-306	INDIA	3827.3	103.0	0	10S	123.3	90.0
5	ECNZA 55	COLOMBIA	3744.0	108.0	0	15S	123.3	80.0
49	BUCK MANANTIAL	ARGENTINA	3655.1	114.0	5R	80S	120.0	30.0
10	CAECTO	ARGENTINA	3582.9	112.0	0	30MS	130.0	80.0
28	TINGALEN	AUSTRALIA	3555.1	105.0	0	TR	105.0	0.0
6	PIAMONTES	ARGENTINA	3427.4	113.0	0	15S	118.3	50.0
4	CARAZINHO	BRAZIL	3216.3	109.0	20S	15S	128.3	80.0
35	SELKIRK	CANADA	3183.0		0	50S	128.3	30.0
20	VICTOR 1	ITALY	2955.2	114.0	70S	90S	88.3	0.0
26	TURPIN 7	S. AFRICA	2738.6	110.0	70S	40S	65.0	0.0
25	IASSUL	BRAZIL	2705.2	112.0	70S	30S	140.0	50.0
		GRAND MEAN	4654.5	107.3	7.0	22.8	100.3	22.9
	STANDARD ERROR OF GRAND MEAN		40.6				0.3	
	COEFFICIENT OF VARIATION		10.7%				3.9%	
	LSD VARIETY MEANS 5 PC		996.5				7.9	

CORRELATIONS

YIELD	KG/HA					
DAYS TO	FLOWER	0.13				
STRIPE	RUST	-0.51**	0.12			
STEM	RUST	-0.27	-0.13	0.34*		
HEIGHT	CM.	-0.35**	-0.18	-0.05	-0.02	
LODGING		-0.37**	0.02	-0.03	-0.16	0.72**

* SIGNIFICANT AT THE 5 LEVEL ** SIGNIFICANT AT THE 1 LEVEL

INIAP.
COOPERATORS INST. NAC. DE INV. AGROPECUARIAS.

LATITUDE	000 22' S	DATE PLANTED	03
LONGITUDE	078 33'W	DATE HARVESTED	10
ELEVATION	+03058 M.ABOVE S.L.	AMOUNT OF MOISTURE	1

LOCAL VARIETY NOT IDENTIFIED. EXCESS OF RAINFALL IN M

VARIETY NUMBER	VARIETY OR CROSS	ORIGIN	YIELD KG/HA	M
12	FATC ARGENTINO	ARGENTINA	3814.5	
30	CRESPO 63	COLOMBIA	3752.8	
18	NAPC 63	COLOMBIA	3629.4	
50	LOCAL VARIETY		3596.5	
24	PUELCUEN	CHILE	3193.2	
35	SELKIRK	CANADA	2872.2	
39	HAZERA 2152	ISRAEL	2839.3	
40	TOLUCA 66	MEXICO	2831.1	
46	PALMIRA 1	COLOMBIA	2831.1	
5	ICA ZA 55	COLOMBIA	2798.1	
37	ET 2286	TUNISIA	2789.9	
7	36856-CJ542 X YAKTANA 54 A(H)	SUDAN	2707.6	
16	GIZA 155	EGYPT	2695.4	
44	ET 2281	TUNISIA	2617.1	
42	MECCRA 70 =(ELUEEIFD # 2)	MEXICO	2567.7	
22	LERMA ROJO 64 X N10B X ANE3	SUDAN	2436.0	
17	SYRIMEX	SYRIA	2419.6	
25	IASSUL	BRAZIL	2394.9	
2	FITIC 62	MEXICO	2370.2	
3	(TZFF-SCN 64) (LR64A-TZPP X ANE3)	MEXICO	2353.7	
10	CAEOTO	ARGENTINA	2296.1	
31	FCTAP 70	MEXICO	2255.0	
9	SON 64A) TZPP-NAINARI 60 (C)	ARGENTINA	2246.7	
6	FIAPCANTES	ARGENTINA	2222.0	
48	UP 301	INDIA	2197.4	
23	SAFIC 70 =(ELUEEIFC # 3)	MEXICO	2180.9	
27	INIA 66	MEXICO	2098.6	
29	LUNCI	RHODESIA	2016.3	
45	PLFI 7C =(ELLEEIFC # 1)	MEXICO	1966.9	
19	C-306	INDIA	1901.1	
21	CHRIS	USA	1868.2	
34	CAJEME 71 =(ELLEBIRD # 4)	MEXICO	1818.8	
20	VICTOR 1	ITALY	1744.7	
33	SONALIKA	INDIA	1637.7	
13	SCN64 X TZFF-NAINARI 60 (B)	ARGENTINA	1563.6	
41	SAFEC LERMA	INDIA	1506.0	
1	NAINARI 60	MEXICO	1464.9	
49	BUCK MANANTIAL	ARGENTINA	1415.5	
38	LERMA ROJO 64A	MEXICO	1341.4	
43	MEXICO 120	AUSTRALIA	1218.0	
28	TINCALEN	AUSTRALIA	1201.5	
11	CHENAB 7C	PAKISTAN	1176.8	
8	FERJAMC 62	MEXICO	1061.6	
32	CHHOTI LERMA	INDIA	897.0	
47	SONORA 64-KLEIN REMOLDOR	ARGENTINA	880.6	
36	TOB X 8156	MEXICO	625.4	
4	CARAZINHO	BRAZIL	567.8	
15	ZAMBEZI	RHODESIA	551.4	
26	TURPIN 7	S. AFRICA	469.1	
14	SIETE CERROS 66	MEXICO	263.3	

GRAND MEAN	2043.4
STANDARD ERROR OF GRAND MEAN	34.3
COEFFICIENT OF VARIATION	20.4%
LSD VARIETY MEANS 5 PC	835.7

CORRELAT

YIELD	KG/HA	
TEST	WEIGHT	0.67**
DAYS TO	FLOWER	-0.10
STRIPE	RUST	-0.65**
P.STRIPE	HEAD	-0.69**
LEAF	RUST	0.41**
HEIGHT	CM.	0.27*
1000 GRN WGT	GRMS	0.78**
SEPTORIA	SPP.	-0.08

* SIGNIFICANT AT THE 5 LEVEL ** SIGNIF

R SANTA CATALINA

12/71 NITROGEN 030.0 KG/HA
13/71 PHOSPHORUS 053.0 KG/HA
60 MM POTASSIUM 024.0 KG/HA

CH, MAY, AUGUST AND SEPTEMBER.

TEST IGHT	DAYS TO FLOWER	STRIPE RUST	P.STRIPE HEAD	LEAF RUST	HEIGHT CM.	1000 GRN WGT GRMS	SEPTORIA SPP.
72.0	83.0	30MS	1	TMS	91.6	36.6	15.0
86.5	89.3	40MS	30	0	120.0	40.0	13.3
81.1	78.0	50MS	40	20MS	106.6	38.3	16.6
90.2	79.3	40MS	40	50S	103.3	40.0	15.0
89.5	93.3	50MS	30	0	111.6	3E.3	26.6
95.0	110.6	60S	30	15.0	146.6	36.6	11.6
81.0	84.3	40MS	5	0	96.6	3E.3	30.0
88.5	83.3	40MS	10	0	98.3	40.0	18.3
89.5	79.0	40MS	40	10S	111.6	41.6	30.0
86.0	96.0	50MS	20	0	128.3	35.0	23.3
87.1	79.6	70S	30	0	96.6	38.3	20.0
80.7	82.0	60S	30	0	98.3	36.6	30.0
84.6	85.0	10MS	0	5MS	110.0	38.3	20.0
85.0	80.6	15MS	10	40S	93.3	36.6	16.6
86.0	80.0	70S	30	0	78.3	36.6	30.0
89.5	98.6	70S	60	5MS	88.3	30.0	11.6
82.3	86.6	70S	60	0	91.6	30.0	33.3
91.0	100.0	80S	80	TMS	150.0	38.3	18.3
91.0	97.3	50S	80	0	111.6	2E.3	16.6
95.8	80.0	80S	50	0	95.0	35.0	13.3
93.3	100.6	80MS	80	0	136.6	25.0	15.6
91.3	78.0	90S	90	0	88.3	38.3	28.3
84.5	82.0	70MS	60	0	91.6	3C.0	25.0
90.8	104.0	80S	80	TMS	127.5	36.6	15.0
89.5	84.6	60S	70	0	68.3	33.3	30.0
96.2	92.3	90S	80	0	81.6	33.3	21.6
84.6	77.3	40S	20	0	93.3	36.6	15.6
89.7	79.3	70S	20	0	76.6	30.0	33.3
95.5	80.6	60MS	80	0	91.6	30.0	30.0
88.7	84.3	5MR	0	TMS	121.6	4C.0	23.3
95.5	92.3	60S	50	0	135.0	31.6	18.3
96.0	96.0	60MS	60	0	85.0	38.3	30.0
84.6	111.3	70S	1	0	81.6	30.0	28.3
53.5	76.3	100S	100	0	98.3	31.6	6.6
62.3	80.6	50MS	20	0	96.6	38.3	23.3
49.1	79.3	100S	100	0	98.3	28.3	8.3
51.7	88.6	50MS	50	5S	111.6	30.0	28.3
57.5	106.0	80S	80	0	120.0	25.0	20.0
51.3	78.3	100S	100	0	98.3	25.0	15.0
47.1	96.6	100S	100	0	71.6	26.6	15.0
53.6	93.3	70MS	80	0	100.0	2E.3	21.6
52.0	79.3	90S	100	0	93.3	28.3	36.6
52.7	80.6	100S	100	0	100.0	26.6	13.3
54.0	84.6	100S	100	0	85.0	21.6	10.0
81.8	80.6	90MS	100	0	95.0	28.3	40.0
55.0	80.6	90.0	100	0	76.6	26.6	26.6
66.3	102.6	80S	100	TMS	136.6	28.3	13.3
90.5	85.3	80MS	90	0	86.6	23.3	30.0
90.1	95.6	100S	100	0	61.6	25.0	10.0
40.6	94.0	100S	100	0	88.3	20.0	26.6
59.2	87.8	59.8	58.2	2.7	100.5	32.5	21.4
	0.2	1.0	1.1	0.2	0.3	0.3	0.6
	3.5%	21.9%	23.6%	123.8%	3.8%	11.6%	37.7%
	6.2	26.2	27.5	6.7	7.7	7.5	16.1

IONS

0.02						
-0.70**	0.05					
-0.81**	0.08	0.84**				
0.14	-0.12	-0.32*	-0.24			
0.38**	0.41**	-0.28*	-0.15	0.11		
0.69**	-0.20	-0.68**	-0.72**	0.31*	0.25	
-0.07	-0.18	-0.20	-0.11	-0.19	-0.26	0.04

ICANT AT THE 1 LEVEL

UNIVERSIDAD NACIONAL AGRARIA, LA MOLINA.
COOPERATORS M.ROMERO LOLI ET AL.

LATITUDE 012 05'S DATE PLANTED
LONGITUDE 076 57'W DATE HARVESTED
ELEVATION +00238 M.ABOVE S.L. AMOUNT OF MOISTUR

LOCAL VARIETY HELVIA-FROM HIGH ATMOSPHERIC HUMIC
UP TO FLOWERING. LIGHT DAMAGE BY BIRDS.

VARIETY NUMBER	VARIETY OR CROSS	ORIGIN	YIELD KG/HA
11	CHENAB 70	PAKISTAN	4047.3
2	PITIC 62	MEXICO	3945.1
34	CAJEME 71 =(BLUEBIRD # 4)	MEXICO	3718.5
38	LERMA ROJO 64A	MEXICO	3482.9
28	TIPCALEN	AUSTRALIA	3475.2
39	HAZERA 2152	ISRAEL	3455.2
43	MEXICO 120	AUSTRALIA	3387.4
22	LERMA ROJO 64 X N1CB X ANE3	SUDAN	3349.6
14	SIETE CERROS 66	MEXICO	3300.7
41	SAFED LERMA	INDIA	3283.0
16	GIZA 155	EGYPT	3233.0
19	C-306	INDIA	3110.7
33	SONALIKA	INDIA	2930.8
45	NURI 70 =(BLUEBIRD # 1)	MEXICO	2908.5
10	GABOTO	ARGENTINA	2894.1
27	INIA 66	MEXICO	2764.1
17	SYRIMEX	SYRIA	2740.8
40	TOBARI 66	MEXICO	2707.5
15	ZAMBEZI	RHODESIA	2706.3
13	SON64 X TZPP-NAINARI 60 (B)	ARGENTINA	2640.8
20	VICTOR 1	ITALY	2640.8
6	PIAMONTES	ARGENTINA	2634.1
37	ET 2288	TUNISIA	2614.1
30	CRESPO 63	COLOMBIA	2587.5
24	HUELQUEN	CHILE	2574.1
4	CARAZINHO	BRAZIL	2565.2
26	TURPIN 7	S. AFRICA	2563.0
3	(TZFF-SCN 64) (LR64A-TZPP X ANE3)	MEXICO	2556.4
18	NAPO 63	COLOMBIA	2538.6
46	PALMIRA 1	COLOMBIA	2528.6
47	SONORA 64-KLEIN RENDIDOR	ARGENTINA	2416.4
50	LOCAL VARIETY		2341.9
7	36656-CJ542) YAKTANA 54 A(H)	SUDAN	2306.4
23	SARIC 70 =(BLUEBIRD # 3)	MEXICO	2301.9
1	NAINARI 60	MEXICO	2229.7
9	SON 64A X TZPP-NAINARI 60 (C)	ARGENTINA	2154.2
31	POTAM 70	MEXICO	2152.0
49	BUCK MANANTIAL	ARGENTINA	2117.5
42	YECORA 70 =(BLUEBIRD # 2)	MEXICO	2053.1
5	ICARZA 55	COLOMBIA	2014.2
12	PATO ARGENTINO	ARGENTINA	1993.1
36	TOE X 8156	MEXICO	1986.4
48	UP 301	INDIA	1970.9
44	ET 2281	TUNISIA	1918.6
32	CHHOTI LERMA	INDIA	1902.0
35	SELKIRK	CANADA	1694.2
21	CHRIS	USA	1644.2
29	LUNDI	RHODESIA	1629.8
8	FENJANG 62	MEXICO	1523.1
25	IASSUL	BRAZIL	1273.2

GRAND MEAN	2590.1
STANDARD ERROR OF GRAND MEAN	59.0
COEFFICIENT OF VARIATION	27.9%
LSC VARIETY MEANS 5 PC	1446.4

	CORR
YIELD KG/HA	
TEST WEIGHT	-0.00
DAYS TO FLOWER	0.08
DAYS TO MATURITY	0.05
LEAF RUST	0.39
STEM RUST	0.18
HEIGHT CM.	-0.05
1000 GRN WGT GRMS	0.26

* SIGNIFICANT AT THE 5 LEVEL ** SI

39/08/70 NITROGEN 100.0 KG/HA
01/10/71 PHOSPHORUS 080.0 KG/HA
---- ** POTASSIUM ---.- KG/HA

TY AND COLD WEATHER

TEST WEIGHT	DAYS TO FLOWER	DAYS TO MATURITY	LEAF RUST	STEM RUST	HEIGHT CM.	1000 GRN WGT GRMS
79.1	57.0	115.0	0	20S	101.6	49.7
75.1	63.0	119.3	60S	80S	100.0	41.5
79.1	74.6	118.6	0	40S	75.0	48.2
81.1	55.3	115.0	0	40S	98.3	47.1
78.7	67.3	119.3	0	60S	95.0	42.0
78.7	63.0	117.6	10S	90S	92.5	54.5
78.7	66.6	117.0	10MS	60S	60.0	36.5
79.1	60.3	118.3	10MS	70S	78.3	33.7
81.1	57.3	115.0	50S	60S	78.3	46.0
80.3	58.0	115.0	0	10S	98.3	46.7
79.1	56.3	116.6	0	40S	116.6	50.7
82.0	67.0	120.6	10MS	50S	130.0	43.0
80.3	50.6	110.0	0	60S	81.6	61.7
82.0	54.0	115.0	0	TMS	85.0	44.5
80.7	65.6	120.6	0	60S	138.3	38.1
81.5	54.0	115.0	0	40S	86.6	45.0
80.3	54.6	115.0	0	30S	91.6	47.5
81.5	54.0	113.3	0	5MS	80.0	44.0
80.7	54.0	116.0	0	60S	80.0	42.0
78.3	58.6	117.6	0	0	85.0	46.0
78.7	72.6	120.0	10MS	90S	85.0	46.3
80.5	46.0	122.0	0	60S	127.5	44.0
80.3	54.0	115.0	0	10MS	85.0	44.0
80.0	57.0	115.0	30S	20S	110.0	46.3
78.3	55.3	115.0	0	40S	100.0	43.7
78.7	68.0	119.3	0	50S	138.3	44.0
76.0	72.6	118.6	0	80S	58.3	40.5
80.7	54.0	115.0	0	0	86.6	34.0
80.1	49.6	110.0	30S	70S	100.0	39.5
79.1	57.0	115.0	0	20S	115.0	52.2
80.3	53.3	113.3	0	10MS	80.0	45.3
80.0	67.0	122.6	5MR	TMR	123.3	36.6
78.7	59.0	120.6	0	30S	95.0	47.0
79.5	72.0	118.6	0	70S	68.3	42.0
77.1	68.0	118.3	0	60S	113.3	43.5
80.3	54.0	113.3	0	0	81.6	36.0
83.7	49.0	110.0	0	15.0	68.3	50.5
77.3	70.6	124.0	0	80S	125.0	28.7
80.1	54.6	115.0	0	10MS,0	58.3	46.2
77.5	68.6	120.6	0	60S	131.6	42.1
80.7	54.0	115.0	0	20S	78.3	36.5
80.3	54.6	115.0	0	100S	68.3	39.5
79.1	56.0	115.0	0	TR	60.0	39.0
80.7	54.6	113.3	0	0	75.0	43.7
81.0	55.0	115.0	0	5S	81.6	43.1
77.1	77.0	121.3	0	80S	138.3	45.5
80.3	63.6	116.0	0	TR	136.6	33.5
78.0	54.0	115.0	0	80S	71.6	44.7
79.5	54.0	115.0	0	0	80.0	41.7
79.1	62.3	115.0	0	60S	128.3	44.5
79.6	59.5	116.5	5.1	40.5	94.4	43.5
	0.5	0.1	0.7	1.1	0.4	
	10.5%	1.5%	175.8%	33.6%	6.4%	
	12.5	3.5	18.1	27.2	12.1	

LATIONS

-0.55**					
-0.45**	0.71**				
-0.07	0.01	0.04			
-0.53**	0.55**	0.49**	0.27		
-0.12	0.30*	0.49**	0.07	0.18	
0.07	-0.20	-0.33*	0.13	0.06	-0.07

NIFICANT AT THE 1 LEVEL

TABLE 68

MEAN OVER ALL LOCATIONS FOR YIELD, AGRONOMIC AND DISEASE DATA FOR THE SEVENTH INTERNATIONAL SPRING WHEAT YIELD NURSERY

PROMEDIO DE TODOS LOS LUGARES PARA RENDIMIENTO, DATOS AGRONOMICOS Y DE ENFERMEDADES DEL SEPTIMO ENSAYO INTERNACIONAL DE RENDIMIENTO DE TRIGOS DE PRIMAVERA

MOYENNE DE TOUS LES LOCALITES POUR RENDEMENT, DONEES AGRONOMIQUES ET DES MALADIES POUR LA SEPTIEME PEPINIERE INTERNATIONALE DE RENDEMENT DE BLE DE PRINTEMPS

VARIETY NUMBER	VARIETY OR CROSS	ORIGIN	YIELD KG/HA	TEST WEIGHT	DAYS TO FLOWER	DAYS TO MATURITY	STRIPE RUST	P. STRIPE HEAD
22	LERMA ROJO 64 X N108 X ANE3	SUDAN	4105.65	77.50	91.84	135.94	7.54	60.00
34	CAJEME 71 =(BLLEBIRD # 4)	MEXICO	4022.43	76.46	90.27	131.67	8.17	80.00
17	SYRIMEX	SYRIA	3997.84	77.67	88.85	134.53	9.70	43.33
31	FCTAP 70	MEXICO	3944.21	75.99	81.09	129.01	13.07	70.00
14	SIETE CERROS 66	MEXICO	3930.86	76.15	90.62	134.87	24.36	100.00
33	SONALIKA	INDIA	3920.18	76.68	81.06	129.78	14.08	96.67
2	PITIC 62	MEXICO	3901.54	70.20	90.46	134.34	10.54	83.33
9	SCA 64A X TZFP-NAINARI 60 (C)	ARGENTINA	3893.24	77.49	84.20	130.86	14.05	56.67
42	NEGURA 7C =(BLLEBIRD # 2)	MEXICO	3888.77	76.15	84.81	130.74	14.64	66.67
32	CHOTI LERMA	INDIA	3870.45	78.13	88.69	133.41	24.14	100.00
41	SAFED LERMA	INDIA	3870.39	76.90	87.64	131.79	14.34	100.00
11	CHENAB 70	PAKISTAN	3839.52	75.36	86.67	132.44	14.95	93.33
47	SCACRA 64-PLEIA FENDIDOR	ARGENTINA	3836.21	77.09	84.54	130.84	14.36	90.00
45	NURI 7C =(BLLEBIRD # 1)	MEXICO	3830.03	78.76	86.12	131.13	9.11	66.67
8	FERJEMC 62	MEXICO	3824.49	76.67	86.74	131.88	20.66	90.00
23	SARIC 7C =(BLUEBIRD # 3)	MEXICO	3769.16	75.91	90.53	131.96	7.96	66.67
50	LOCAL VARIETY		3762.71	71.94	88.13	133.89	14.72	40.00
38	LERMA ROJO 64A	MEXICO	3751.31	76.36	85.18	130.65	15.58	100.00
15	ZAMBEZI	RHODESIA	3749.51	76.48	87.73	134.96	21.18	86.67
36	TOE X 8156	MEXICO	3741.02	76.39	85.93	131.84	18.70	96.67
39	HAZERA 2152	ISRAEL	3735.29	74.68	85.41	131.66	9.50	18.33
12	FATC ARGENTINC	ARGENTINA	3723.89	75.70	86.32	133.64	3.83	3.00
44	BT 2281	TUNISIA	3711.69	77.01	84.22	133.14	4.15	20.00
27	INIA 66	MEXICO	3690.95	78.87	81.54	128.66	8.71	18.33
46	TOBARI 66	MEXICO	3683.40	78.91	84.56	131.96	3.77	13.33
7	26856-CJ542 X YAKTANA 54 A(H)	SUDAN	3663.97	73.44	84.89	133.16	26.25	46.67
13	SCA64 X TZFP-NAINARI 60 (B)	ARGENTINA	3639.00	75.69	86.88	134.25	12.73	30.00
43	MEXICO 120	AUSTRALIA	3605.09	73.98	87.43	131.95	25.00	100.00
37	ET 2288	TUNISIA	3586.54	76.18	82.43	131.43	8.84	36.67
30	CRESPO 63	COLOMBIA	3580.65	77.13	87.27	133.95	3.76	23.33
16	CIZA 155	EGYPT	3554.68	77.00	87.95	135.95	12.43	1.67
1	NAINARI 60	MEXICO	3541.11	73.73	90.01	132.87	19.30	73.33
48	UP 301	INDIA	3539.76	73.52	86.95	131.06	13.41	66.67
3	(TZFP-SCA 64) (LR64A-TZPP X ANE3)	MEXICO	3503.94	78.49	86.56	130.91	10.94	53.33
28	TIMGALEN	AUSTRALIA	3493.51	75.75	91.20	134.42	20.57	73.33
24	HUELQUEN	CHILE	3486.67	76.92	89.73	133.26	5.69	23.33
20	VICTOR 1	ITALY	3455.73	72.79	96.77	144.91	15.54	0.33
29	LUNCI	RHODESIA	3417.02	74.31	85.19	130.01	23.63	26.67
18	PAVC 63	COLOMBIA	3416.48	75.76	83.01	129.38	7.34	40.00
46	PALMIRA 1	COLOMBIA	3372.03	71.94	87.16	131.06	15.47	40.00
26	TLFFIN 7	S. AFRICA	3195.32	70.19	91.18	134.64	34.28	100.00
49	BUCK MANANTIAL	ARGENTINA	3122.94	74.40	94.12	137.15	20.92	86.67
10	GAUCTO	ARGENTINA	3038.71	77.61	93.89	136.79	16.15	86.67
5	BONZA 55	COLOMBIA	3021.25	74.92	90.78	133.87	6.51	33.33
4	CARAZINHO	BRAZIL	2928.56	76.31	95.11	137.46	19.15	83.33
19	C-306	INDIA	2899.49	77.42	89.55	135.23	10.32	0.0
6	PIAMONTES	ARGENTINA	2835.70	76.42	93.70	135.25	9.52	63.33
21	CHRIS	USA	2822.83	76.99	91.35	135.16	10.42	46.67
25	IAS5UL	BRAZIL	2565.30	74.40	95.42	134.79	22.04	73.33
35	SELKIRK	CANADA	2306.74	69.20	93.66	138.46	19.07	46.67
	SUMMARY MEANS OVER VARIETIES		3551.76	75.63	88.12	133.25	14.30	58.30

LEAF RUST	STEM RUST	HEIGTH CM.	LODGING	SHATTER-ING	SHATTERING HEAD	1000 GRN WGT GRMS	POWDERY MILDEW	SEPTORIA TRITICI	SEPTORIA NODORUM	SEPTORIA SPP.	ROOT ROT	FROST DAMAGE
32.42	29.40	77.34	8.85	4.70	0.0	32.56	18.74	17.55	56.67	34.78	40.00	4.11
1.63	13.21	72.63	12.08	9.24	5.00	40.44	17.46	25.40	30.67	47.16	40.00	16.11
31.23	12.18	90.45	20.64	7.83	5.00	37.16	22.00	16.55	34.67	43.31	53.33	15.56
4.30	10.21	80.32	11.34	15.89	50.00	39.83	17.96	29.09	27.33	44.42	40.00	16.11
32.28	16.61	86.57	14.06	9.98	10.00	33.20	8.81	32.36	47.33	49.04	100.00	18.89
13.56	16.87	89.99	17.46	8.07	1.00	45.66	21.16	28.30	19.33	43.98	53.33	22.78
20.35	27.75	94.74	40.76	10.43	0.0	33.79	8.96	16.86	46.00	40.47	66.67	20.00
1.52	11.16	87.10	14.63	14.23	5.00	32.09	15.13	24.36	40.00	45.43	46.67	21.67
2.22	10.64	67.59	4.63	7.61	1.00	38.38	14.28	28.99	66.67	51.23	40.00	29.44
20.25	7.11	83.00	12.66	5.22	1.00	34.11	16.75	31.15	10.67	44.57	60.00	11.67
15.81	11.21	93.26	38.85	16.00	0.0	39.43	35.30	23.05	12.00	38.71	40.00	13.33
22.12	25.10	96.00	10.47	16.87	20.00	38.29	26.56	36.36	40.67	52.13	93.33	27.78
2.73	8.89	87.97	14.33	12.44	50.00	36.45	19.63	21.60	30.00	43.77	60.00	26.67
2.44	6.83	85.14	9.72	5.11	1.00	35.64	31.73	24.75	10.67	43.86	26.67	29.44
5.43	12.48	96.88	26.26	6.80	0.0	37.43	21.49	17.29	18.67	39.26	40.00	22.78
0.67	9.08	59.53	5.39	7.92	1.00	39.21	19.55	28.76	45.33	44.07	40.00	10.56
18.29	15.62	97.50	22.63	7.83	0.0	33.76	18.74	16.00	13.33	35.41	40.00	18.33
20.63	8.82	95.03	40.28	14.82	1.00	38.38	31.42	33.77	12.00	46.76	40.00	20.00
13.90	16.88	82.72	9.15	5.39	0.0	32.92	19.43	33.38	66.67	53.98	46.67	26.11
11.47	10.95	75.03	4.53	5.66	0.0	33.48	12.76	26.53	47.33	42.16	40.00	30.00
27.23	22.15	83.92	11.45	7.67	0.0	38.18	18.60	21.65	15.33	50.14	60.00	21.67
5.42	9.15	94.25	14.36	6.81	0.0	30.89	28.44	20.57	28.00	24.77	40.00	16.11
25.83	5.68	83.43	8.45	5.91	0.0	36.43	18.88	18.60	20.00	41.58	26.67	26.11
21.68	10.72	86.46	13.20	8.57	0.0	39.32	31.32	17.49	26.00	37.19	40.00	27.22
4.73	7.65	98.36	15.76	9.12	0.0	36.14	13.77	15.66	18.67	36.52	46.67	32.22
13.30	8.78	83.51	19.59	6.22	1.00	39.56	14.40	16.84	33.33	38.53	80.00	23.33
3.77	7.25	84.01	6.29	5.30	0.0	38.98	13.85	17.05	37.33	43.06	46.67	23.33
14.74	28.87	63.86	3.73	4.91	0.0	34.60	32.92	22.06	75.33	36.55	100.00	24.44
3.98	9.82	86.76	15.82	9.42	1.00	35.87	11.16	21.72	46.00	44.63	46.67	21.11
14.42	13.95	105.99	41.35	14.73	1.00	35.79	22.04	14.96	21.33	40.98	20.00	8.33
22.05	9.63	101.27	29.61	5.63	1.00	38.91	19.59	24.70	30.67	51.51	60.00	17.22
7.11	25.92	100.95	26.41	5.91	1.00	38.88	14.93	23.99	52.00	42.41	73.33	17.22
2.02	4.81	62.95	1.83	15.02	0.0	37.49	21.08	39.67	80.00	50.00	20.00	18.89
4.37	10.35	86.93	29.88	17.32	2.00	34.28	38.48	14.95	21.33	29.49	46.67	22.78
6.05	8.04	99.04	33.66	18.91	5.00	34.62	7.86	24.76	26.67	45.06	53.33	18.33
6.79	7.58	104.96	39.44	12.75	1.00	35.37	23.48	21.93	55.33	49.24	73.33	22.22
24.38	37.05	78.75	9.14	13.14	0.0	34.43	23.64	10.83	44.00	31.59	60.00	2.78
13.13	19.90	76.21	4.20	6.49	0.0	35.33	7.04	32.80	93.33	48.24	53.33	22.22
27.46	7.02	100.19	27.70	8.24	1.00	35.34	19.13	21.34	5.33	45.46	60.00	27.22
19.86	12.62	105.92	51.45	22.08	0.0	39.12	33.35	26.85	6.00	40.44	40.00	24.44
8.10	30.02	64.33	2.48	5.14	0.0	35.51	26.86	39.37	70.00	51.20	73.33	20.00
1.62	31.84	106.11	41.07	9.41	0.0	28.23	24.90	6.30	4.67	21.36	40.00	21.11
1.00	17.76	112.28	54.16	16.60	1.00	31.02	24.45	12.86	21.33	32.72	86.67	13.33
15.71	15.67	111.81	54.40	16.21	0.0	34.50	12.31	16.23	34.67	37.74	60.00	19.44
4.49	17.10	114.01	53.78	20.27	1.00	37.23	26.48	9.71	4.00	28.41	53.33	9.44
22.95	18.00	105.02	58.42	21.32	0.0	39.14	21.30	36.23	34.67	42.44	90.00	34.44
10.84	17.47	109.66	45.02	16.51	0.0	35.09	13.69	10.57	4.67	32.78	53.33	12.78
1.56	6.70	113.11	57.87	15.93	0.0	30.73	20.79	11.34	9.33	31.92	46.67	13.89
9.07	20.62	122.50	60.24	44.11	50.00	37.05	23.94	5.14	5.33	27.73	60.00	6.67
18.94	11.91	112.71	40.73	16.14	50.00	32.09	21.64	12.44	13.33	33.46	53.33	14.44
12.72	15.04	90.61	24.39	11.55	5.34	36.05	20.61	22.03	32.17	41.00	54.00	19.73