بسم الله الرحمن الرحيم

شبكة المعلومات الجامعية

التوثيق الالكتروني والميكروفيلم

شبكة المعلومات الجامعية

جامعة عين شمس

التوثيق الالكتروني والميكروفيلم

قسم

نقسم بالله العظيم أن المادة التي تم توثيقها وتسجيلها
علي هذه الأفلام قد أعدت دون أية تغيرات

يجب أن

تحفظ هذه الأفلام بعيدا عن الغبار
في درجة حرارة من ١٥-٢٥ مئوية ورطوبة نسبية من ٢٠-٤٠%

To be Kept away from Dust in Dry Cool place of 15-25- c and relative humidity 20-40%

بعض الوثائـــــق الاصليـــة تالفـــة

بالرسالة صفحات لم ترد بالاصل

MANAGEMENT OF MINERAL NITROGENOUS FERTILIZERS AND MAKING USE OF BIOFERTILIZERS THROUGH DIFFERENT GENOTYPES OF WHEAT

By
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B. SC. Agric, Cairo University, 1984
Diploma of Environmental Sci., Ain Shams University, 1989
Master in Environmental Sci., Ain Shams University, 1996

A Thesis Submitted for Doctor of Philosophy
in
Environmental Science

Department of Agricultural Sciences
Institute of Environmental Studies &Research
Ain Shams University

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APPROVAL SHEET

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ABSTERACT

The objective of this investigation is to study the relationship between different newly wheat genotypes and higher response to use biofertilizers plus reducing amounts of mineral nitrogenous manures. Secondly, the effect of biofertilizer on yield and yield components through half diallelic crosses.

Ten locally developed wheat varieties evaluated during the first season for their response to different nitrogen fertilization treatments. Six of them were chosen according to the results of the first season for more studies under such conditions and to be crossed in all possible combinations without reciprocals to obtain fifteen diallel crosses.

The results revealed that the six parental varieties can be divided into two categories, first group have high yielding capacity under treatment C including the varieties Giza 164, Gem.1, Sids7 and Sakha 69 and the sconed group including the varieties Gem.3 and Giza 167 with low yielding capacity under this treatment.

Data from various studies revealed that inoculation with Cerealin (***B. polymyxa***) enhanced growth increase in yield components and quality of protein in wheat grains. The response to inoculation was affected by cultivar, fertilizer and /or biofertilizers.

Results of general combining ability effects indicated that Giza 164, Gemmeiza1 and Sids7 could be good combiners for grain yield /plant under the treatment of biofertilization (B and C).

The results of specific combining ability effects were matched with results of heterosis under biofertilization treatments (B and C). In general it is obvious that the behavior of parents in cross combinations under biofertilization agreed with its own performance for all characters.

General and specific combining ability effects were frequently significant among parents and hybrids for the studied characters under biofertilization treatments.

These results indicated that some of the parental varieties could be effectively used as promising progenitors for high expression of the character under consideration and the specific combinations with high performance could be exploited in hybrid production programs

Key words: Wheat – Biofertilizer- Cerealin – Mineral nitrogen fertilizer – response – varieties – Heterosis- Diallel cross - Combining ability – yield and yield attributes of wheat

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