



شبكة المعلومات الجامعية

بِسْمِ اللَّهِ الرَّحْمَنِ الرَّحِيمِ





شبكة المعلومات الجامعية



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 اعدت دون أية تغيرات



يجب أن

تحفظ هذه الأفلام بعيداً عن الغبار

في درجة حرارة من 15 – 20 مئوية ورطوبة نسبية من 20-40 %

To be kept away from dust in dry cool place of
15 – 25c and relative humidity 20-40 %



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بعض الوثائق الأصلية تالفة



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بالرسالة صفحات

لم ترد بالأصل

**RESPONSE OF CERTAIN WHEAT
CULTIVARS TO ECOLOGICAL STRESSES
IN RELATION TO QUANTITY AND QUALITY
OF YIELD IN EGYPT**

THESIS

Submitted to

**Institute of Environmental Studies and
Research, Ain Shams University,
Cairo for the Ph.D. Degree**

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BNK 70

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بِسْمِ اللَّهِ الرَّحْمَنِ الرَّحِيمِ

الَّذِي جَعَلَ لَكُمُ الْأَرْضَ مَهْدًا وَوَسَّلَ لَكُم فِيهَا سُبُلًا
وَأَنْزَلَ مِنَ السَّمَاءِ مَاءً فَأَخْرَجْنَا بِهِ أَزْوَاجًا مِّن نَّبَاتٍ شَتَّى *
كُلُوا وَارْزُقُوا أَنْعَمْنَا إِنَّ فِي ذَلِكَ لَآيَاتٍ لِّأُولِي النَّهْيِ *

صدق الله العظيم ،،

(الآيتان ٥٣ و ٥٤ من سورة طه)



Approval Sheet

**RESPONSE OF CERTAIN WHEAT
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ABSTRACT

Comparative study on competitive ability of Sakha 8 and Souhag 1 wheat cvs. to associated weeds was performed in two successive seasons of 1992/93 and 1993/94. Ten interference stress of weed duration treatments were investigated.

Results showed that growth of weeds was decreased when associated with Sakha 8 compared with those with Souhag 1, where Sakha 8 was characterized by its superiority in all leaf growth assessments and also number of survival plants/m² at harvest. Fresh weight of weed species and total weeds were increased with the increase in the duration of weed-infested period.

Therefore, emergence to harvest weed duration exhibited the highest fresh weights of *Cichorium pumilum*, *Rumex dentatus*, *Convolvulus arvensis* and total weeds; whereas, booting to milk ripe duration gave the lowest biomass weight of such weeds.

Values of area, SLW and fresh and dry weight of leaves per wheat plant were not appreciably affected by weed interference duration treatments. Nevertheless, number of wheat plants/ m² number of spikes/ m² and number of spikelets and grains/spike were decreased as weed infested period was extended or shortening weed-free duration period. The critical influence of weeds on grain yield was started to appear beyond the tillering stage, i.e. after one month from sowing, and the more delay of hand weeding, the less yield was obtained, where grain, straw, biological and harvest index were progressively decreased as weed infested duration period increased or weed-free period decreased. This was true for both Sakha 8 and Souhag 1 cvs.

Most of associated weed species proved to be better nutrient accumulators than wheat plant where they contained higher N,P,K,Ca and Zn concentrations than did Sakha 8 or Souhag 1 plants. However, Sakha 8 had higher concentrations of P,K,Mg and Zn than Souhag 1 whereas the reverse was true for N,Ca and Mn.

Key words:Wheat cvs., Weed interference period, Wheat/weed competition, Critical period of competition, Growth, yield and yield attributes of wheat, Nutrient accumulation by weeds.

