



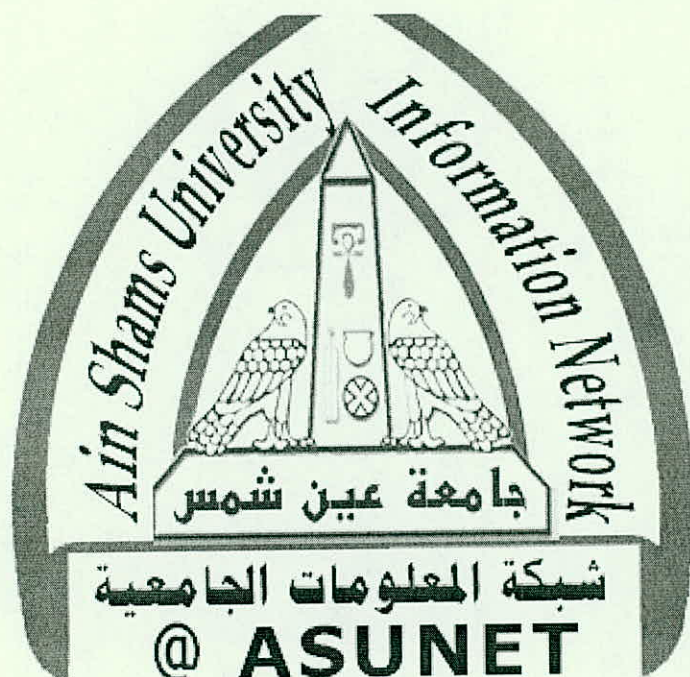
شبكة المعلومات الجامعية

بِسْمِ اللَّهِ الرَّحْمَنِ الرَّحِيمِ





شبكة المعلومات الجامعية



شبكة المعلومات الجامعية

التوثيق الالكتروني والميكرو فيلم



شبكة المعلومات الجامعية

جامعة عين شمس

التوثيق الالكتروني والميكرو فيلم

قسم

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



يجب أن

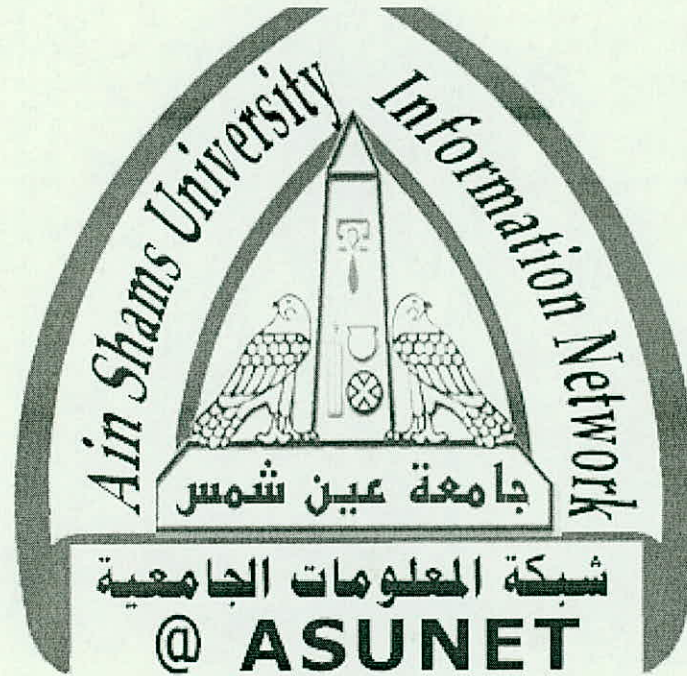
تحفظ هذه الأفلام بعيداً عن الغبار

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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بالرسالة صفحات

لم ترد بالأصل



شبكة المعلومات الجامعية



بعض الوثائق الأصلية تالفة

**ABUNDANCE OF WEEDS AND EFFICIENCY OF
WEED CONTROL PROGRAMS IN SUGAR BEET
FIELDS IN RELATION TO PLANTING DATE**

By

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B.Sc. Agriculture (Agric. Production), Cairo University, (1987).

M.Sc. Agriculture (Agronomy), Ain Shams University, (1995).

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of the requirements for the degree

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ABSTRACT

Adel Mohamed Abd El-Aal, Abundance of weeds and efficiency of weed control programs in sugar beet fields in relation to planting date. Unpublished Doctor of Philosophy Dissertation, Agronomy Dept., Fac. of Agric., Ain Shams Univ., 2001

Two field experiments were conducted during 1997/98 and 1998/99 seasons in the Experimental Station of Sakha (Kafr El-Sheikh Governorate). The principal aim was to investigate the effect of planting date and some weed control programs and their interaction on abundance of weeds, weed control, growth characteristics, yield and yield components of sugar beet crop (*Beta vulgaris* L.). The investigation was extended to assess the toxic residues of sugar beet herbicides on two sensitive succeeding plants.

Delaying sugar beet planting date from mid-September to mid-November was correlated with a progressive and significant increase in number (99.7%) and fresh weight (103.2%) of total weeds. Hand-hoeing (3 times) treatment gave the significantly lowest number and fresh weight of broad-leaved, grassy and total weeds and reduced number of these groups after 10 weeks from planting than the unweeded treatment by 98.0, 96.2 and 97.4%, respectively. One hoeing + Betanal Progress along with Betanal Progress + one hoeing treatments came in the second order.

Delaying planting date one month from mid Sep. to mid Oct. decreased root yield ton/fed by about 7.22% and dropped on mid Nov. planting to 27.47% compared with the early

planting date. Conventional hand-hoeing significantly outyielded all the applied chemical weed control treatments. Root yield of such potent treatment was 13.9 folds greater than that of unweeded treatment and exceeded significantly the super chemical treatment of Betanal Progress + one hoeing by 71.8 %. Betanal Progress + one hoeing treatment came in the second yielding order. Planting sugar beet in the medium season i.e. 15th October and hoeing it manually three times/season attained the highest value of sucrose percentage (17.9%).

The simple regression equation cleared that under zero number of weeds/m² crop yield will be increased theoretically to be 35.49 t./fed. and one weed/m² increase in number of total weeds/m² there was a decrease of 6.4 % in final root yield per feddan. Similar calculations indicate that under complete weed-free conditions (zero weeds) crop yield will be increased to 55.25 t./fed. and, with 1 g/m² increase in fresh weight of total weeds/m² there was a decrease of 0.076 % in the final root yield per feddan.

Pyramin, Goltix and early post-emergence Betanal Progress herbicides were generally safe and decomposed within 7 months of application to amount which are not toxic to the following crops.

Key words: Sugar beet, planting date, weed competition, herbicides, hoeing, detoxification, growth, yield and quality.

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