



شبكة المعلومات الجامعية

بِسْمِ اللَّهِ الرَّحْمَنِ الرَّحِيمِ



شبكة المعلومات الجامعية
@ ASUNET



شبكة المعلومات الجامعية التوثيق الالكتروني والميكرو فيلم



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 الوثائق الأصلية تالفة

بالرسالة صفحات لم ترد بالاصل

87804

**TRANSPLANTING TECHNIQUE
TO PRECISE PLANT STAND OF
SUGAR BEET UNDER SALINE
CONDITIONS.**

By

WAHBY MOHAMED HASSANY AHMED

B. Sc. (Agronomy), Assiut Univ., 1994

A thesis submitted in partial fulfilment of
the requirement for the degree of

Master of Science

in

Agricultural Science

(Agronomy)

**Agronomy Department
Faculty of Agriculture
Ain Shams University**

2000

APPROVAL SHEET

TRANSPLANTING TECHNIQUE TO PRECISE PLANT STAND OF SUGAR BEET UNDER SALINE CONDITIONS.

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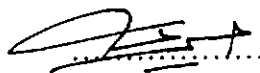
B. Sc. (Agron), Assiut Univ., 1994

THESIS

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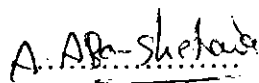
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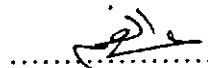
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TRANSPLANTING TECHNIQUE TO PRECISE PLANT STAND OF SUGAR BEET UNDER SALINE CONDITIONS.

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ABSTRACT

Wahby Mohamed Hassany Ahmed. Transplanting Technique to Precise Plant stand of Sugar beet under Saline Conditions. Unpublished Master of Science, Thesis, Agronomy Department, Faculty of Agriculture, Ain Shams University, 2000.

Three and four field trials were laid out at different monthly planting dates (1st Oct. to 1st Dec., in 1996/97 and 1st Sept. to 1st Dec., in 1997/98) in the Agricultural Experimental Station of Desert Research Center at Wadi Sudr, South Sinai Governorate under calcareous soil (56.9% CaCO_3) using saline water irrigation (6700 ppm). Every trial included 8 treatments to elucidate if the transplanting technique at different ages is qualified enough to obtain the potential sugar beet plant stand under salinity conditions

Results exhibited that early planting dates in both seasons decreased significantly No. of harvestable plants/fed. Although, early planting date improved the most root, top traits and sugar yield, TSS, sucrose (%) and purity (%) in most cases, decreased significantly with early planting dates.

Transplanting sugar beet only and direct seeding with replanting the missed hills by sugar beet transplants at any age significantly improved sugar beet stand at harvest date. Sucrose and purity percentages were not affected significantly by transplanting treatments in the two growing seasons. However, Total soluble solids percentage (TSS, %) of transplanting at 7 weeks old surpassed the other treatments in the two growing seasons. The heaviest fresh or dry root yield/fed. was obtained from direct seeding with

replanting the missed hills by 9-weeks old transplants followed by transplanting at 7 weeks old in the 1st season. This was true in the 2nd season for direct seeding and replanted the missed hills by 5- or 9-weeks old transplants. Transplanting sugar beet at any age or direct seeding with replanting the missed hills by transplants at any age exerted a significant increase in top yield as fresh or dry weight/fed. and sugar yield as compared with direct seeding either with or without extra seed bed preparation.

Direct seeding at early planting dates with replanting the missed hills by 9-, in the 1st season, and 5-, in the 2nd one, weeks old transplants gave the heaviest fresh and dry root yield per fed. Direct seeding on 1st Sept., in the 2nd growing season with replanting the missed hills by 9 weeks old transplants, followed by transplanting at 9 weeks old exhibited a significant increase in top fresh or dry yield/fed. Early planting date plus transplanting sugar beet at 7 weeks old, in the 1st growing season, or direct seeding with replanting the missed hills by sugar beet transplants at 5 weeks old, in the 2nd one, gave the highest sugar yield/fed.

It is concluded that, under salinity conditions, transplanting technique is successful to adjust harvestable sugar beet stand either with replanting and/or planting with transplants at any age leading to increase sugar yield as compared to traditional planting method. Although, transplanting technique markedly increased number of normal and abnormal roots/fed., the abnormal roots with top yield may be offered to feed cattle.

Key words: Sugar beet, Transplanting, Sowing date, Salinity, Yield, Sugar (%), T.S.S (%), Purity (%).

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