

MECHANIZED RICE TRANSPLANTING AND FACTORS AFFECTING ITS PERFORMANCE

By
AHMED EMAM HUSSEIN

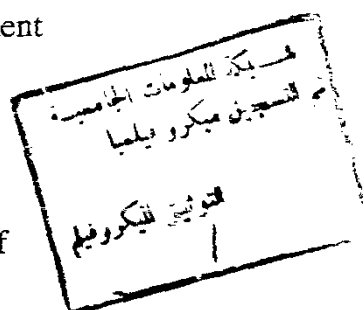
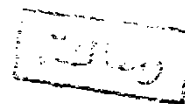
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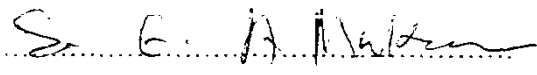
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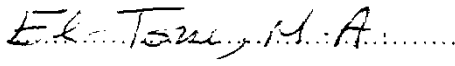
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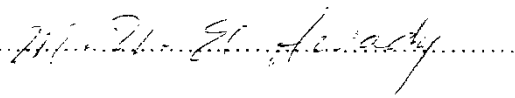
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Abstract

The aim of this work is to study the factors affecting transplanting for different kinds of transplanters to reach for optimum conditions of transplanting.

Obtained results indicate the best conditions of transplanting to produce a maximum yield of crop as follows :-

- a- Depth of water during transplanting ranges between 2-3 cm.
- b- Cone plumb penetrating depth is 8 - cm.
- c- Depth of firm pan ranges between 8 - 12 cm.

The ratios of missing and defective hills at optimum conditions were minimum at values of (1.2, and 3%), resp.

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INTRODUCTION

1. INTRODUCTION

Rice production depends on machines to transplant quickly and efficiently with a minimum labor requirements. In Egypt, rice is considered one of the major crops, since it is second to cotton in its export potential to obtain foreign currency. The rice growing area in Egypt is estimated at 1099659 fed., according to Central Agency for Agricultural Economy and Statistics, (CAAES, 1991). Rice farming in Egypt is by large found in the Nile Delta. The five provinces of Dakahlia, Kafr EL-Sheikh, Beheira, Sharkia and Gharbia Governorates account for 95% of the total area planted with paddy, with the remaining area found in the north of Beni - Sweif and parts of Fayum basin and Dakhla and kharga Oases (Hossary et al., 1980).

In Egypt rice must be transplanted by the end of april. It was found that the less the growing cost is, the greater the rice area will be.

It was also found that labour and animal work in rice planting have surpassed the logical stage and evolved into a diminishing return stage.

The shortage in hand labor in Egyptian farms has become a pressing problem in the recent decade. This problem is mainly ascribed to the increasing workers - migration from the rural areas to other sectors of increased income. This