سامية محمد مصطفى

شبكة المعلومات الجامعية

بسم الله الرحمن الرحيم

سامية محمد مصطفى

شبكة المعلومات الجامعية

شبكة المعلومات الجامعية

التوثيق الالكتروني والميكروفيلم

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جامعة عين شمس

التوثيق الإلكتروني والميكروفيلم

قسم

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

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شبكة المعلومات الجامعية

بعض الوثائق الأصلية تالفة

سامية محمد مصطفى

بالرسالة صفحات لم ترد بالأصل

YIELD AND SEED QUALITY OF FABA BEAN AS AFFECTED BY SOME ENVIRONMENTAL FACTORS

BY

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B.Sc.Agric. (Agronomy), Fac. of Agric., Cairo Univ., 1993
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THESIS
Submitted in partial fulfillment
of the requirements for the degree of

DOCTORATE OF PHILOSOPHY

IN

AGRONOMY

Department of Agronomy
Faculty of Agriculture
Cairo University

2004

Supervision Sheet

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ABSTRACT

Two successful field trials were carried out during 2000/01 and 2001/02 seasons at Agricultural Experimental Station, Faculty of Agriculture, Cairo University, Giza, Egypt to study the effect of irrigation intervals and plant densities on productivity and seed quality of faba bean sown in three sowing dates (15 October, 31 October and 15 November).The experimental design used in each experiment (sowing date) was a split plot with four replications. Irrigation intervals (25, 35 or 45 days) were arranged in main plots and plant densities treatments (25, 33, 50 and 75 plants/m^2) were assigned to sub plots. Results obtained could be summarized as follow:

Sowing faba bean on 15 October gave significantly increasing in straw and biological yields/faddan, seedling dry weight. However, sowing on 31 October gave the highest values of seed yield/faddan, protein, oil, ash, phosphorus, 100-seed weight and volume, bulk density, dehulled seeds, hydration after cooking and stewing%. Sowing 15 November produced the highest values of normal germination, tannin and fiber content in faba bean seeds.

Irrigation every 25 day intervals significantly increased fiber content, total carbohydrate and tannin content in faba bean seeds. However, Irrigation every 35 day intervals gave the greatest seed yield/faddan, high seedling dry weight, bulk density, hydration coefficient after cooking, total soluble solids and stewing %. Irrigation every 45 days gave the greatest values of 100-seed weight and volume, hydration coefficient after soaking, hulls % and dehulled seeds % Protein %, oil % and phosphorus .

Sowing 25 plants/m^2 produced the highest bulk density and stewing %. However, sowing 33 plants/m^2 gave the highest values of seed, straw and biological yields/faddan, total carbohydrates, tannin , ash, 100-seed weight and volume, hydration after cooking. Sowing 50 plants/m^2 significantly increased hydration coefficient after soaking, dehulled seeds % and total soluble solids. normal germination. The dense population (75 plants/m^2) scored the highest values of normal germination, fiber % and phosphorus level in seeds.

ACKNOWLEDGMENT

First of all, ultimate thanks are due to Allah,
Who without his aid this work could not be done

The writer expresses her deepest gratitude and sincere appreciation to ***Dr. Hilal El-Sayed El-Hattab*** and ***Dr. El- Metwally Abd Alla El-Metwally***, Prof.of Agronomy, Faculty of Agriculture, Cairo University for their suggesting the problem, keen supervision, valuable guidance, diligent discussion and constructive criticism throughout the course of this investigation and during the writing and revision of the manuscript.

Deep gratitude is due to ***Dr. Gamalat Ossman Mahmoud***, lecturer of Agron., Fac. of Agric., Cairo University, for her keen supervision, advice, and valuable guidance, through the progress of this work and during the preparation of the manuscript.

Sincere thanks are due to ***Prof. Dr. Frank Ellmer*** and ***Dr. Regina Schenk,*** Institute of Crop Science, Faculty of Agriculture and Horticulture, Humboldt University, Berlin, Germany and their coworkers, for their keen supervision, kindness, valuable guidance during my scholarship in Germany.

Finally, thanks to my family, especially ***my parents*** for their continues encouragement and inspiration of offer to me.