



Benha University
Faculty of agriculture
Agronomy department



Post graduate student
Code No. : 640
Time allowed: 2 hours

Production of main crops

Final exam, January 2020

Answer the following questions

(60 Marks)

First Question: write about:

(15 Marks)

- 1- Important of chemical defoliation of cotton.
- 2- Effect of plant densities on flax yield (Quantity & Quality).
- 3- Peanut fertilization.

Second Question:

(15 Marks)

How can securing self-sufficient of sugar in Egypt?

Third Question:

(15 Marks)

What are the characteristics of a good variety of: Soybean, Sunflower and Sugar cane?

Fourth Question:

(15 Marks)

How can produce high and improved yield of maize?

With our best wishes



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Model answer of Production of main crops

Final exam, January 2020

Answer the following questions

(60 Marks)

First Question: write about:

(15 Marks)

1- Important of chemical defoliation of cotton.

- Early in bolls opening.
- Ease of picking cotton by hand and increase the harvest rate or mechanical.
- It helps to resist pests such as aphids and boll warms.
- It helps to resist bolls rotting.
- Reduces humidity rate in the seeds and increases the proportion of oil which lead to increase the percentage of seed germination.

2- Effect of plant densities on flax yield (Quantity & Quality).

The optimum plant density of flax was 60 kg/fed. Whereas, we use about 80 kg/fed when planted with broad casting. Meanwhile, we used 40 kg/fed when planed with planter (machine).

- **Increase plant density led to:**
- Thickly plants, high yield and lower quality in lint.
- **Decrease plant density led to:**
- Roughly plants , lower yield and lower quality in lint.

3-Peanut fertilization.

Peanut was need about:

15-20 m³ farm yard manure.

200 kg/fed super phosphate calcium.

30 kg N/fed



50 kg /fed potassium sulphate

Micronutrients (EDETA) spraying with various time.

Second Question:

(15 Marks)

How can securing self-sufficient of sugar in Egypt?

- 1- Increasing the production (yield/fed) of its cultivated area now.
- 2- Cultivation of sugar beet in new reclamation area because:
 - A- Sugar beet is winter crop and not need high quantity of water.
 - B- It can growing in new reclamation areas without compete the main crops.
 - C- Sugar beet tolerant salinity and alkaline soil.
 - D- Sugar beet is double purpose rest for sugar production and vegetative growth for animal feeding.
 - E- Sugar beet not compete sugar cane because sugar cane growing in upper Egypt while sugar beet growing in Delta.

Third Question:

(15 Marks)

What are the characteristics of a good variety of: Soybean, Sunflower and Sugar cane?

The characteristics of a good variety of Soybean were:

- High yielding ability.
 - Diseases and insects resistance.
 - High % of oil.
 - Earliness in plant maturity.
 - High quality.
- The characteristics of a good variety of Sunflower were:
- High yielding ability.
 - Diseases and insects resistance.
 - High % of oil.
 - Earliness in plant maturity.
 - High quality.
 - Seed size.



- The characteristics of a good variety of Sunflower were:
- High yielding ability.
- Diseases and insects resistance.
- High % of sucrose.
- Earliness in plant maturity.
- High quality.
- Lower in use water.

Fourth Question:

(15 Marks)

How can produce high and improved yield of maize?

We must provide the following:

- Prepared proper seedbed.
- High quality varieties.
- Sowing in proper date.
- Proper fertilization.
- Irrigation in proper time.
- Proper hoeing twice.
- Disease and insects control.
- Thinning plants individually.
- Provide proper seeding rate.
- Sowing in hills over ridges 70 cm in between and 25 apart.

With our best wishes
Ahmed Saad