

SUMMARY AND CONCLUSIONS

5-Summary And Conclusions

This work was carried out at the experimental floriculture farm in Faculty of Agriculture, Moshtohor. Zagazig University. Benha Branch during two seasons (1999-2000),(2000-2001).

This work was carried out to study the effect of (yeast-phosphorus- potassium) on growth and flowering of lilium plant.

Lilium bulbs (Lasio and Poliana) exported from (Delstyr-Netherlande-Holand) soaked for ten minutes in a solution of fungicide and planted one bulb in each pot (25cm) filled with a mixture of sand, clay and peat moss (1:1:1). The pots divided into three sets as follow: -

- 1-The first set: -The plants were applied it with three levels of yeast (Mibico, Egypt) 1,2 and 3gm/L.
- 2-The second set: - The plants were fertilized with phosphorus (phosphoric acid 85%- Corrsive-China) 2,4 and 6 cm/L.
- 3-The third set: -The plants were fertilized with potassium (Foliar potassium 38%- El-Nasr for chemical and bio-cide Co.) 2,4 and 6 cm/L.

The important results could be summarized as follows: -

I-1-Effect of yeast on vegetative characteristic: -

The use of yeast increased the number of leaves, fresh and dry weight of leaves, as well as, length and diameter of spike of both cultivars in both seasons.

2- Effect of yeast on flowering characteristic:

Yeast at all levels increased florets number pr spike , florets diameter, florets fresh and dry weight, fresh and dry weight of spike and vase life.

3-Bulbs characteristic: -

The use of yeast increased diameter of bulb, scales number per bulb and fresh and dry weight of bulbs..

4-Chemecal characteristics:

The use of yeast increased the nitrogen % in leaves, florets and bulbs and increased the phosphorus % in Leaves, florets and bulbs and increase significant of potassium in leaves, florets and bulbs Increasing of rate carbohydrates in leaves, florets and bulbs.

II-1-Effect of phosphorus on vegetative characteristic:

The use of phosphorus increased the leaves number, fresh and dry weight of leaves, plant high and spike diameter.

2-Effect of Phosphorus on flowering characteristic:

The use of phosphorus increased the florets number , floret diameter,

fresh and dry weight of florets, fresh and dry weight of spike and vase life.

3-Effect of Phosphorus on bulbs characteristic: -

The use of phosphorus increased the bulb diameter, scales number

and fresh and dry weight of bulbs.

4-Effect of Phosphorus on chemical characteristic:

The use of phosphorus increased the nitrogen % in leaves, florets and bulbs ,increase the phosphorus % in leaves, florets and bulbs , increasing in the potassium of leaves, florets and bulbs and increased the carbohydrates % in the leaves. florets and bulbs.

III-1-Effect of potassium vegetative characteristic:

The use of potassium increased the leaves number, fresh and dry weight of leaves, plant high and spike diameter.

2- Effect of potassium flowering characteristic: -

The use of potassium increased the florets number , floret diameter,
fresh and dry weight of florets, fresh and dry weight of spike
and vase life.

3- Effect of potassium bulbs characteristic: -

The use of potassium increased the bulb diameter, scales
number
and fresh and dry weight of bulbs.

4- Effect of potassium chemical characteristic: -

The use of potassium increased the nitrogen % in leaves,
florets and bulbs, increase the phosphorus % in leaves, florets
and bulbs, increasing in the potassium of leaves, florets and
bulbs and increased the carbohydrates % in the leaves. florets
and bulbs.

In conclusion A- *Lilium longiflorum* var. **lasio**: -

1-Using yeast led to increase of fresh and dry weight of
leaves, number of florets per spike, fresh and dry weight
of spike and dry weight of bulbs.

2-The yeast led to increase of potassium% in leaves and N%
in bulbs.

3-Phosphorus led to increase of fresh weight of leaves, floret
diameter, and fresh and dry weight of florets and spike,
vase life, bulb diameter and fresh weight of bulbs.

4-Phosphorus led to increase of P% of leaves, N%, P%, K%
and carbohydrates% of florets and K%, carbohydrates %
of bulbs.

5-Potassium led to increase of leaves number, spike length, spike diameter and scales number per bulb.

6-Potassium led to increase of N%, carbohydrate of leaves, P% of bulbs.

B-Lilium longiflorum var. *poliana*: -

1-Yeast led to increase of leaves number, floret diameter, fresh and dry weight of florets and fresh weight of spike.

2-Yeast led to increase carbohydrates % of florets.

3-Phosphorus led to increase of spike length, fresh and dry weight of leaves, dry weight of spike, vase life, diameter of bulb, scales number per bulb and fresh and dry weight of bulbs.

4- And increase of nitrogen %, phosphorus % and carbohydrate % of leaves, P% and K% of florets and P % of bulbs.

5-Potassium led to increase of spike diameter and florets number per spike.

6- Potassium led to increase of K% of leaves, N% of florets and N%, K% and carbohydrates % of bulbs.