

RESEARCHES REGARDING THE EVOLUTION OF FOUR SOY BEAN VARIETY IN THE CONDITIONS OF THE SUB HUMID AREA OF TRANSYLVANIA BETWEEN 2003-2004

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SUMMARY

The experience purpose is to follow the behavior of four soy bean sorts (Diamant, Perla, Agat si Safir) in different conditions: irrigated and without irrigation (2003-2004).

The results obtained in the two experimental years have been statistically interpreted; thereby we could draw the next conclusions:

- In 2003, in no irrigation conditions, from the four soy bean categories, the Diamant hybrid registered the highest production (2,8 t/ha), passing over the experience average (2,5 t/ha) with a significant- positive difference. The four soybean variety production was between 2,2 – 2,8 t/ha. The smallest production was realized by the Safir sort (2,2 t/ha), which registered a significant- negative difference compared to the experience average.
- In irrigation conditions, in 2003, all four soy bean sorts had a good level of productions. The Diamant and the Agat varieties produced 3,6 t/ha and respectively 3,5 t/ha. The Safir sort still registered, in irrigation conditions, the smallest production. (3,1 t/ha), noting a significant- negative difference compared to the experience average. (3,4 t/ha).
- In 2004, in no irrigation conditions, the category that realized the highest production was the Agat sort (2,9 t/ha), passing over the experience average (2,6 t/ha), recording a significant-positive difference. The Safir variety, with 2,2 t/ha production, was on the last place because of its small production (significant- negative difference compared to the experience average)
- In irrigation conditions, in 2004, the productions were between 3,3 – 3,7 t/ha. The Agat sort (3,7 t/ha) registered a significant difference compared to the experience average (3,5 t/ha). A significant- negative difference was reordered by the Safir variety with a production of 3,3 t/ha.

In the two experimental years, the four soy bean varieties obtained superior productions in irrigation conditions. We can easily notice that irrigation had a positive influence on the productions obtained in the two experimental years.

Also, all soy bean varieties had high productions and are recommended for cultivation in the sub humid area of Transylvania.

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