PROTECTION COMPLEXES’ INFLUENCE UPON ONION YIELD UNDER WESTERN FIELD CONDITIONS

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SUMMARY

The information concerning yield losses represent the best synthesis of the effects exerted by pathogen agents and pests upon onion crop. These information originate in the observations performed during 2003-2005 in the untreated control variant, compared to the variants in which we have applied protection complexes and also in the comparisons between the variants with the experience mean (\( M_x \)) and with the protection complexes mean (\( M_{x,cp} \)).

Yield differences compared to the control variant (Mt) are between 8.93-17.83 t/ha. The yield achieved in all seven variants is statistically assured, and the significances of yield differences are very significantly positive. Analyzing the significance if yield differences, by reporting it to the experience mean (\( M_x \)), we may notice an evident differentiation per variants of the significance degree, namely a very significantly positive significance is available in only three variants (V5, V6 and V3). In V1 the significance is just positive, while in the variants V2 and V4 there is no significance, and in variants V7 and V8 it is very significantly negative.

When the reference of yield differences was made only to the yield average achieved under the influence exerted by the protection complexes, excluding the yield achieved in V8 – untreated control variant, the situation changed dramatically, namely the yield has statistical cover only in two variants, difference significance being very significantly positive in V5 (Ridomil Gold MZ 68 0.25 % + Victenon 50 WP 0.075%) and distinctly significantly positive in V6 (Ridomil Gold Plus 42.5 WP 0.3% + Mospilan 20 SP 0.025%). There is no significance in the variants V3, V2 and V1, and in the variants V7 and V4 yield difference significance is very significantly negative, respectively distinctly significantly negative.

As a general conclusion, we may say that the protection complexes from V5 (Ridomil Gold MZ 68 0.25 % + Victenon 50 WP 0.075%) and V6 (Ridomil Gold Plus 42.5 WP 0.3% + Mospilan 20 SP 0.025%) had the best effects in fighting against the two diseases (onion downy mildew - Peronospora destructor (Berk.) Casp and bulb rot - Botrytis allii Munn.) and the pest (onion fly – Delia antiqua Meig.), fact also proved by the level of yields achieved, by their statistical cover and the highest assessment degree of yield difference significance. The weakest effect in fighting against the two diseases and the pest belonged to the protection complex from V7 (Dithane M45 0.2% + Fastac 10EC 0.02%), because the significance of yield differences compared to \( M_x \) and \( M_{x,cp} \) is very significantly negative.

BIBLIOGRAPHY