INFLUENSE OF SOYBEAN INOCULATION BY BIOLOGICAL FUNGICIDES ON DEVELOPMENT FUNGAL DISEASES

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The effect of inoculation of soybean seeds varieties South-30 biological agents on the development of fungal diseases (Septoria, Anthracnose and Downy mildew). Demonstrate the high efficiency of fungicidal agents Mikosan H, Trihodermin and Ekovital.

Soybean, disease, Septoria, Anthracnose, Downy mildew, biofungicide, disease progression, biological efficiency, productivity.

Soy has been and remains one of the key strategic food and feed crops on the planet. The volume of production it ranks fourth in the world after maize, wheat and rice. Global acreage of soybeans in 2011. reached 102 million hectares and the gross grain harvest amounted to 259 million tons In Ukraine there is a positive trend in soybean cultivation. If in 2003 it was cultivated on 189,6 thousand hectares in 2013 the area under crops was 1414,0 thousand ha Potential yield, recorded in the register of varieties of soybean, is 2.0 - 2.5 t/ha [3]. One of the reasons for the shortage of crops soybeans have the disease, which significantly reduce its quantity and quality. According to some scholars [2, 3] the most skazocinii diseases of soybean are: Septoria leaf blotch, spot blight and disease. Significant changes in weather and climate conditions in recent years have affected the structure of the complex of phytopathogenic soybean, caused the emergence of new diseases that were not previously met in the forest-Steppe zone of Ukraine, or have had little development. Therefore, it is very effective in limiting the development of diseases of soybean is the search for new effective plant protection products, especially biological. Now they remain effective for its disinfecting effect in agriculture [2, 4].

Every year on the market of pesticides and agrochemicals Ukraine goes more biological agents that protect the seeds of soybean from diseases and are effective fungicidal effect on pre-sowing the seeds inoculation.

The aim of the research is to determine the impact of biological drugs on the development of diseases of soybean and its performance.

Materials and methods research. In order to limit the development of diseases of soybeans we have conducted pre-sowing seed inoculation of bacterial drug Ecotal compatible with befunge Nicosan - N and Trichodermin. Research conducted in 2012-2013, in temporary field experiments of the Department of plant protection from pests and diseases NSC "Institute of agriculture NAAN" on soils sod-podzolic spasciani soils with a humus content of 0.85%. The action of biological agents was studied on a variety of soy-South-30. The seeding rate was 600 thousand of viable seeds per hectare. The size of the accounting Department - of 12.6 m2. Experiment was repeated fourfold. Accounting for the destruction of plant diseases was carried out according to standard techniques [1] in the phase of flowering and education soy beans.

Conclusions

The application of biological disinfectants Milsana-N and Trichodermin in combination with associ drug Ecotal during the processing of soybean seeds can reduce the development of Septoria 1.9 - 2.4 times, disease - 13.6 - 36 %, disease - 13.0 - 57.5 per cent., to increase the mass of 1000 grains soybeans 1.39 - 2,78 g, yield - 0,51 - value of 0.52 t/ha

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