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MEASURES TO CONTROL AGAINST FUSARIUM MAIZE DISEASE

Isomiddinova Yulduz Aminzhanovna,
Southern Agricultural Research Institute, Doctoral Student

Annotation
The article considers measures to combat Fusarium, which damages the development and productivity of corn. The experiments were carried out at the Southern Research Institute of Agriculture.

Keywords: Corn, disease, productivity, pathogen, fungus, seed treatment, productivity, biological efficiency.

Corn is of great importance in the national economy, is an important cultivated plant cultivated over large areas for grain and green mass. In recent years, the importance of maize as a nutritious food crop and for animal husbandry has increased, as well as its use in a number of industries.
The development of maize cultivation and further increase in yields can be achieved through the use of intensive technologies. It is very important to protect the cultivated maize crop from various diseases, determine the area of their distribution and apply effective control measures. It is important to develop measures to combat fusarium wilt, which affects the corn crop. As a result of the import of corn varieties to the republic and the annual increase in the area of crops for animal feed, there is an increase from year to year in the area of pests and diseases that damage the corn crop. year.
In addition to developing agricultural techniques for the cultivation of new varieties of maize, there is an urgent need to develop measures to combat the fusarium (Fusarium verticilloides) disease of maize, which is considered dangerous for livestock. Fusarium inhibits the growth and development of corn crops, causing poor-quality seeds in corn due to the action of pathogenic mycotoxins and poisoning livestock that eat grains.
Due to the lack of measures to combat fusarium wilting of corn in the sown areas of household plots and farms, the number of pathogenic species of fungi is increasing. In the development of measures to combat fusarium, the possibility of integrated management of maize diseases will be created. Prevention and chemical control of corn diseases and recommendations for their production is one of the important tasks facing modern scientists.
Fusarium wilt is the most common and harmful disease of corn crops, which is observed in the seeds, roots, stems and leaves of corn and develops throughout the growing season, causing crop losses of 50-60%. Therefore, it is necessary to develop effective ways to combat this disease. About 70 diseases and pests are known to damage the corn crop. 25 of them are fungal diseases [2].
Fusariumwilt, considered the most dangerous among diseases, is a widely specialized fungus. It is advisable to carry out chemical control of fusarium corn diseases with the help of disinfectants before sowing seeds and prophylactic chemical control of diseased plants with fungicides. Based on the above information, scientific studies to combat fusarium corn were conducted in the central large

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experimental field of the Southern Research Institute of Agriculture in 11 variants and 4 replays on field experimental fields [3].

In the experiment, corn of the "Kelazhak-100" variety was planted and the biological efficacy of the drugs used against the disease was studied according to the formula Abbota [4].

In the experiments, 5 preparations for seed treatment with high efficiency against fusarium corn disease were tested. In experiments, the spread of the disease averaged 1.0-2.2% on the variant treated with Daltebu FS 6% s.e.p. 0.4 l / t, on the version with maxim HL 035 FS, 3.5% sus. k It was 0.8-4.1%, whereas in the version treated with Essensalil 27% sus.k, it was 4.2-7.7%. The biological efficacy of the drugs averaged 82.1-96.5% in the version treated with Maxim XL 035 FS, 3.5% sus.k, while in the version treated with Daltebu FS 6% s.e.p., it was 90.4-90.4%. 95.6% (Table 1).

Table 1 Resource requirements by component
Efficacy of preparations against fusarium wilt of maize (UNIIDZ, 2022))

№	Options	Rate of consumption, l/t	Spread of the disease, %	Development of the disease, %	Biological efficiency, %
1.	Control	-	23,0	0,76	-
2.	Vitavax 200 FF 34% s.sus.k	2,0	3,7	0,12	83,9
3.	Vitavax 200 FF 34% s.sus.k	2,5	1,2	0,04	94,7
4.	Hercules 6% c.u. sus	0,4	5,1	0,17	77,8
5.	Hercules 6% c.u. sus	0,5	2,6	0,08	88,6
6.	Daltebu FS 6% CE sus	0,4	2,2	0,07	90,4
7.	Daltebu FS 6% CE sus	0,5	1,0	0,01	95,6
8.	Essenzalyl 27% sus.k	1,5	7,7	0,25	66,5
9	Essenzalyl 27% sus.k	2,0	4,2	0,14	81,7
10.	Maxim XL 035 FS, 3.5% SUS.	0,75	4,1	0,13	82,1
11.	Максим XL 035 FS, 3,5% сус.к.	1,5	0,8	0,02	96,5

In the course of our studies, we observed the spread of fusarium disease on the Kelajak-100 corn variety, determined the degree of spread of the disease and the biological efficacy of each variant, and recorded as a percentage. According to this, the highest rate of disease prevalence was recorded on the control (untreated) variant and it was observed that it averaged 23%, while the spread of the disease to Vitavax 200 FF 34% s.sus.k 2.0-2.5 l / t variant was control (untreated), it can be observed that it is reduced

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compared to the variant. In this variant, the prevalence of the disease averaged 3.7-1.2%, and the biological efficacy of the disease was 83.9-94.7%.

Based on the above data, it can be concluded that it is possible to achieve high biological efficiency and maintain the yield of corn by treating seeds with preparations for sowing before sowing against fusarium corn disease. According to the results of the studies, the spread of the disease was 0.8-1.0% in the variants using sowing preparations Daltebu FS 6% s.e.s. and Maxim HL 035 FS, used against fusarium corn, and as a result of biological efficacy in preparations - 95.6-96.5%. These drugs were selected for the next stages of the experiments.

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