

Treatment of Winter Wheat Seed Materials with Pesticides

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Annotation: In irrigated and dry lands, various diseases and pests cause great damage to the development of winter wheat. According to the results of the scientific research conducted in the field of grain growing, in the conditions where winter wheat seeds are sown with medicine, the infection of spikes with scab and other diseases is reduced by about 5-10%. Today, scientists have created various drugs against diseases and are being tested in production conditions.

Key words: Winter wheat, seed material, Hercules drug, tebuconazole, Petkus apparatus, harmful pathogenic damage.

Introduction

It is very difficult to meet the demand of both the population and the industry for agricultural products without developing the cotton and grain industries, which determine the economy of our country, on a scientific basis. In Uzbekistan, an average of 95 kg of wheat is needed per person per year. Based on this, at the current stage of agricultural development, great attention is paid to increasing the yield of crops, improving the quality of products, creating high-yielding varieties and hybrids that meet the requirements of farming and their wide introduction into production. [1-5]

Methods

PF-4947 dated February 7, 2017 of the President of the Republic of Uzbekistan) [1; 2017; 6-s] in the Decree "On the Strategy of Actions for the Further Development of the Republic of Uzbekistan" "Continuous development of agricultural production, further strengthening of the country's food security, expanding the production of ecologically clean products, optimization of areas, introduction of modern agrotechnologies that save resources" are defined as important strategic tasks. Scientific research on the development of a system for obtaining high-quality seeds based on the study of the preparation, storage and initial processing of seed materials of winter wheat varieties in the grain industry, which is one of the important branches of agriculture. and determining the factors that increase grain yield and quality with the implementation of practical developments is of great importance. [6-7]

The yield of field crops and the quality of the product depend on the quality of the seeds used for planting. A seed is considered a living organism, and a plant will develop from its stem. Therefore, the seed embodies the biology, economic and variety characteristics of the future plant. For this reason, in the history of agriculture, great attention has been paid to the quality characteristics of seeds. As in other sectors, the state standard requirements are applied in the storage and processing of agricultural products, especially in the processes of processing and storage of seed wheat. The State Standard of Uzbekistan (UzDst 2823:2014) for processing, storage, and transportation of wheat grain based on the requirements of the state standard [2; No. 05-542] is conducted based on the requirements. [8-10]

Results And Discussion

After receiving the seeds collected from the field, they are sorted by variety, reproduction and batch. In this process, the seeds are cleaned of foreign impurities and various impurities.

After cleaning the winter wheat seeds from various impurities, they are treated before sowing. In irrigated and dry lands, various diseases and pests cause great damage to the development of winter wheat. As a result, a significant part of the intended crop dies, which leads to a sharp decrease in grain yield [11-15]. To prevent this, the seeds are treated with various chemical preparations before planting. According to the results of the scientific research conducted in the field of grain growing, in the conditions where winter wheat seeds are sown with medicine, the infection of spikes with scab and other diseases is reduced by about

5-10%. Today, scientists have created various drugs against diseases and are being tested in production conditions. Drugs that can completely eliminate diseases and increase grain yield are recommended for use in grain farms. Treatment of wheat seeds before planting is a general and mandatory measure.

Atabaeva.Kh.N, Azimov.B.M [3; 77-b]s stated that today almost 100% of grain fields of our Republic are planted with medicated seeds. Only treated seeds are given to farms. Treatment is carried out under the supervision of specialists in specially designated areas of seed farms. Seeds are treated a month before sowing. In such conditions, black fungus is quickly neutralized. In conditions where it is not possible to treat the seeds in advance, the seeds should be treated one by one. Untreated seeds cannot be planted.

Petkus St 2.10 pratiravater apparatus is used for treatment of seed materials of winter wheat. Seed grains must be treated against fungal and various pathogenic diseases before sowing [16-20]. Pesticides are used in the treatment process, and these pesticides are sprayed on grains in a mixture with water.

The suspension is prepared as follows; First, the pesticide manual recommended by the "State Agrochemical Protection" organization is carefully studied by the laboratory staff, and then the solution is prepared with the participation of the "State Agrochemical Protection" staff. The accumulated seed material of winter wheat was treated with the drug "Hercules", "Bahor", "Dalbrom".

Hercules (6%, 60 g active substance in 1 liter of the drug, water-soluble suspension containing tebuconazole 0.4-0.5 l/t) is prepared by mixing the drug with 10 l of water. This solution is mixed with 1 ton of seed material using special equipment.

Recommendations for consumption and use of the drug "Hercules":

"Gerkules" consumption rate of the drug.

Yellowing rate of the drug, l/tn seed	Crop, cultivated object	Harmful object	Application method, processing time
0,4-0,5	Winter wheat	Dust and hard black	Seed treatment with drug suspension

Application: reliably protects wheat seeds from harmful pathogenic damage and increases the yield of seeds.

After treatment, the seeds are collected in a special hopper, there is an electronic scale below the hopper, and the scale is adjusted to 45-50 kg depending on the demand. In the course of medication, depending on the consumption of the drug, the humidity may increase by 1-2%. During the processing process, seeds are packed in special bags [21-23]. A label is attached to the bag, the name of the plant where the grain was processed, variety, breed, year of harvest, purity of the variety, weight, production date, working shift and the words **"be careful not to be poisoned"** are written on the label. The final process consists of placing the treated seed material in warehouses and controlling its shelf life.

Conclusion

In the course of the research, after harvesting the winter wheat seed material, the seed material is subjected to laboratory analysis in the seed grain processing workshops and relevant quality marks are determined. 2 months before planting, the seed material was treated with "Hercules", "Bahor", "Dalbrom" against harmful pathogenic damage. As a result, it was observed that the infection of winter wheat with scab and root rot diseases decreased by about 5-10%.

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