

EFFECT OF AN EFFECTIVE FUNGICIDE ON RUST DISEASE OF WINTER WHEAT

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Annotation. Yellow rust of winter wheat is the most dangerous disease in the Andijan region and spreads in conditions of high humidity. In recent years, the disease has spread to the country's irrigated grain fields, causing significant damage to the quality and quantity of grain grown, as well as effective fungicidal action against it.

Key words: rust, pustule, leaf blade, chemical fight.

Satisfying the demand of the population of Uzbekistan for winter wheat grain is considered the main issue of the day. With the improvement of the intensive technology used in modern agriculture, it is possible to achieve a high yield of agricultural crops, including winter wheat. For this, first of all, the elimination of pests and diseases is an important indicator.

In the climatic conditions of Uzbekistan, grain crops are damaged by pests such as aphids, grain aphids, thrips, slimyworms and about 10 types of diseases. It is observed that these harmful organisms have spread to the irrigated grain fields of our republic in the following years, causing significant damage to the quality and quantity of the cultivated grain. It has been determined that this group of harmful organisms can cause 15-20% annual crop loss, and 45-50% when the climate is favorable for their growth [6].

Although it is considered that the development of grain production and higher yields depend on the measures used, some of the harvested crops are dying due to the spread of diseases.

Rust, the main disease of winter wheat, is the most dangerous, and its development becomes more active as the temperature of the disease-causing air rises. The importance of modern active fungicides remains important in reducing

its effect on the disease. Taking this into account, Alto super 33% k.e. of the fungicides applied to production by a number of our scientists in the following years, the biological efficiency was 100% when cyproconazole 80 g/l + propiconazole 250 g/l at 0.3 l/ha was used against rust [3].

The development of the disease depends on the external environment, the more favorable conditions are for the pathogen to infect the plant, the easier it is to damage the plant. As long as this is the case, it is the main important factor for it to be able to fully use this environment in order to be iatrogenic. According to long-term information about this, the rust disease was observed from the second half of April, when the average daily air temperature was +15-20°C, and the relative humidity was 60-65%, and there was more precipitation. Air temperature higher than +25°C practically completely stops the life activity of spore-forming fungi [4].

According to the experiments conducted by another researcher, Tiltol, used against yellow rust, is 25% k.e. In comparison with the control variants, the disease incidence of plants decreased by 12.3%, while the disease development was 7.9% [2].

One of the important factors of crop protection is the rational planning and proper organization of chemical treatments of grain against rust disease. In particular, in the conditions of Andijan region, the achievement of the set goal will be ensured by developing the optimal period and standards for protection against the rust disease of winter wheat in naturally damaged areas.

Table 1

Effects of DRUNK-300 ES fungicide on germination, growth and development of wheat

Experience options	Dynamics of seed germination %			The thickness of seedlings is million pieces	The height of the plant stem, cm	Illness		Disease development
	28.04	01.05	03.05			piece	%	
Назорат	54,1	68,8	74,9	4,6	49,8	30,4	77,4	14,3

DRUNK-300 EC	63,7	76,2	83,2	4,5	84,5	32,6	68,3	12,9
DRUNK-300 EC	71,9	85,3	92,9	4,5	93,1	21,3	12,7	6,1
Фолекур БТ22% (ЭТАЛОН)	64,4	78,6	81,3	4,5	86,7	32,9	58,9	11,0

According to the data on the growth and development of winter wheat of the new DRUNK-300 ES substance, the best growth was recorded in wheat seedlings of option 3. While the height of the wheat seedlings of this variant was 93.1 cm, this appearance was characterized by 86.7 cm in the plants of the reference variant. When we looked at the difference between them, it was found that the wheat of option 3 was 6.4 cm taller. In the experiment, the norm of seedling thickness of 4.5-4.6 million pieces is considered to be a factor of obtaining a high yield from the experiment.

Table 2

Effect of DRUNK-300 ES fungicide on winter wheat rust

Experience options	The spread of rust disease			Incidence %	The degree of development of the disease	Biological efficiency %
	05.05	10.05	15.05			
Назорат	1,9	6,3	11,2	17,2	96,1	-
DRUNK-300 EC	0,4	1,9	2,3	3,6	11,7	79,0
DRUNK-300 EC	0	0	0	2,4	9,5	86,0
Фолекур БТ22% (ЭТАЛОН)	0	1,3	1,2	2,5	10,1	83,4

The value of our experiment is that it was found that this new chemical has a significant effect not only on rust disease, but also on septoria disease. In the case where DRUNK-300 ES was used (table-3), the incidence of rust in young seedlings was 12.7% in the calculations of May 15, while in this period, 58.9% of

autumn wheat stalks in the standard variant were infected. This can be explained in such a way that the development of the rust fungus and the increase in pathogenicity for the plant depend on external factors.

In the variant treated with DRUNK-300 ES fungicide at the rate of 0.2 l/ha, biological efficiency was 79.0% after 20 days, while 96.1% of seedlings in the control variant were damaged. In the variant treated with DRUNK-300 ES fungicide at the rate of 0.3 l/ha, the biological efficiency was 86.0% with disease development at 0.5%.

According to the results of the studies, it was found that DRUNK-300 ES has an effect on the development of the rust fungus and the reduction of the amount of pustules on the leaf, and it has been found that the development of uredospores on the leaf plate of the plant has decreased by 75-80%, and the pustule has dried with a change in its tension and color.

It can be concluded that DRUNK-300 ES k.e. Application at the rate of 0.3 l/ha from 2 to 8 days caused a decrease in the ability of the pathogen to affect the plant, as well as a decrease in the disease and an increase in the yield of winter wheat.

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