

# THE EFFECT OF THE CHEMICAL PREPARATION “TINTUL DUO” AGAINST YELLOW AND BROWN RUST DISEASE IN AUTUMN PLANT

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**Annotation:** The article studied the effect of the chemical substance “Tintul duo” on Autumn rust disease in the affected area, as a result of which “tintul duo” systemic fungicide was applied to the autumn soil mass in a norm of 300 gr/ha and suffered 12,7 percent less than plant rust disease.

**Аннотация:** В статье изучалось влияние химического вещества «Tintul duo» на заболевание осенней ржавчиной на пораженном участке, в результате чего системный фунгицид «tintul duo» был применен в норме на 300 г/га осенней почвенной массы, поражая растение на 12,7% меньше, чем заболевание ржавчиной.

**Keywords:** Yellow rust, fungal, spike, disease, dressing, degree, spore, preparation, cure, moisture, wind, grain, field, season.

**Introduction.** In World Farming, it is mainly cultivated soft or simple and hard. The remaining species are sown in very small quantities. Wheat was known in the countries of Old and Central Asia in 7-6 thousand BC. It began to be planted in North America from the 17th century. Wheat is sown in the north to Sweden, in Russia, in the south to the southern borders of Australia, South America, Africa. The world's sown fields are worth 250 million dollars. about a hectare, about 30% of the grain grown falls on average, and this is about 360 million hectares. The is more than a vegan. Russia, Kazakhstan, China, the United States, India, and Uzbekistan can be cited as examples for the main countries. In autumn, the farm is of great importance, because the Dogi is nutritious, and in its composition there are proteins (from 10-12%

to 20-25%, in wild species 25-30%), starch (60-64%), as well as fats (2%), vitamins, trace elements, mineral substances, etc. Doni, kepagi and other waste valuable feed, raw materials for the mixed feed industry. Somoni cannibal and tubing, building material; from the STEM is made of paper, cardboard, wrapping material, baskets, hats are used for weaving. Blue Mass is given to the mole, and also silage. From cereals of different varieties, they are produced, cereals, alcohol, starch and other products.

The main task of Endi is to deliver an average yield of 55-60 cents per hectare and more in the fields irrigated in recent years in order to fully meet the needs of our people for grain products. In order to obtain a high yield in crop husbandry should be used Fuller opportunities, planting periods and norms of bug'doy varieties in each region is a guarantee of abundant harvest. When planted early in autumn varieties with grain sown with Spike, the upper part of the earth grows more and until winter begins to germinate in some varieties, the bunda winters poorly with damage from all kinds of diseases in the plant and the yield decreases, even when planted late, the plant does not germinate well, significantly adversely affects.

In addition to conducting agrotechnical measures to obtain an abundant harvest from autumn, it is important to conduct effective measures to combat its diseases. Yellow and brown rust diseases cause serious damage to the grain crop. This disease is extremely dangerous, its wide spread and development is accompanied by a rapid and gradual exchange of open air with favorable conditions, in high humidity, its spores begin to grow, and at a temperature of 2 degrees, they enter the plant tissue. When the average temperature for the rapid spread and development of the disease is 8-15 degrees, the mass increases and spreads to the grain fields. Brown rust disease develops well at a slightly higher temperature, that is, at 16-22 degrees. In the following years, a number of regions have developed ecosystems that have adapted to the development of this disease in higher temperatures. Even in the regions, the disease is extreme, spreading in the form of epiphytomias. Autumn is affected by rust, the surface of

the Leaf, which retains its green hue, including the development of autumn plants, weakens the roots, the absorption of nutrients and water slows down, the height of the low stem becomes thin, the tendency to lie down increases, the number of flower spike decreases, the grain becomes brittle and the gross yield decreases.

### **Research methodology**

It is desirable to use effective methods against fungal diseases that are encountered in the grain fields of our republic. One of the most effective measures is primarily the planting of disease-resistant varieties and the Prevention of the spread of the disease. Measures for the chemical fight against diseases of grain crops with Virgo begin when the degree of morbidity of the plant is about 5-20%. It is necessary to conduct a prophylactic chemical struggle in areas prone to infection with rust diseases.

If measures are not taken to effectively combat these diseases in a timely manner, the farmer and the cluster farm will destroy up to 50-60 percent of the crop grown from the Tamon. In order to reduce the impact strength of rust-causing fungi on plants, to increase the resistance ability of plants to this potagen, the following scheme was carried out in the conditions of educational experience of Andijan Institute of Agriculture and agrotechnologies in order to take into account the above data.

1. Control

2. Template Splesh 30% feed.k. 0,2-0,3 l /

3. Tintul duo 20% 0.2-0.3 l/

The experiment was conducted in 4 variants of 3 refunds.

The area occupied by one option is 324 m<sup>2</sup>, to which the variety "Tanya" was selected for planting.

### **Analysis and results**

In the experiment, all the stages of development, from the germination of the planted autumn tree to its ripening, were carried out. Accounts and observations G.G.Gataulina and M.G. It was carried out by the method of obbedkov (2000 year).

From the data obtained on the diagnosis of autumn seedlings with yellow and brown rust diseases by experimental options, it is known that yellow rust disease was initially manifested from 13 April in seedlings with control options, by this period, the

incidence was observed at 19 April in autumn seedlings with Tintul duo sprinkled on a hectare of 0.3 l/ha. The difference between them was 6 days. When infected with brown rust the case of infected with brown rust was 8.7 percent if the seedlings in the variants that worked with the Tintul duo were infected by 12.7 percent less than when the seedlings were controlled with yellow rust.

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№	Experience options	Yellow rust-infected % account		Brown rust infected % account		Dressing ts/ga	Weight of 1000 pieces of grain
		1.V	15.V	1.V	15.V		
1	Control	8.2	17.4	3.4	12.4	49.8	39.7
2	Template Splesh 30% feed.k. 0,2-0,3 l / ha	5.3	8.9	3.0	9.7	54.5	40.3
3	Tintul duo 20% 0.2-0.3 l/ha	2.2	5.8	2.3	8.5	57.8	41.0

In the experiment, the effectiveness of chemicals is assessed by the effect of autumn rustiness on reduced acidity. According to the data obtained, it is most valued for its effect on fertility. According to the information obtained, the chemical substance Tintul duo according to the most specificity options turned out to be the variant used. In this variant, more dressing was collected on 8 ts/ha than on the control option.

#### **Conclusion**

In conclusion, we can say that the optimal norm of the drug Tintul duo in reducing rust disease in autumn is 0.3 l/ga. deb. This norm not only reduces the germination of plants with yellow and brown rust, but also leads to an increase in the tolerance to this disease.

#### **List of used literature**

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