

# DAMAGE OF ROOT ROT DISEASE OF WHEAT

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## Abstract

The article provides information about the harmfulness of wheat root rot. Based on research, the importance of the role of precursors in reducing the incidence of root rot is shown.

This information is important for protecting wheat from diseases during the growing season and growing a high-quality crop against them.

**Keywords:** Wheat, variety, Intensive, Unumli, Sanzar, Skifyanka, Yongbosh, resistant, seeds, phytopathogen.

## Introduction

In conditions of irrigated agriculture, various diseases of wheat significantly reduce its yield and cause great damage to the agriculture of the republic. One of the most common and harmful diseases of wheat is root rot.

Root rot is a disease of the stem base and roots of wheat caused by a complex of parasitic fungi belonging to a single or complex genus.

Agricultural researchers, especially phytopathologists, show the importance of the soil of cereal crops and previous crops in reducing the development of root rot disease of wheat. Root rot disease of wheat appears every year as a chronic disease.

Studies conducted by many scientists have shown that agrotechnical methods, in particular, crop rotation, tillage, planting time and seeding norms, and other factors can reduce the spread and development of diseases in cereal crops. plays an important role. Their infection overwinters in soil and plant debris [1,2,3,4].

## Research Methods

Researches were conducted at the Department of Agricultural Phytopathology of Tashkent State Agrarian University and at several farms in Tashkent region on root rot disease of irrigated wheat crops. The spread of diseases and the degree of disease development in plants were determined by the method of route studies and stationary observations [11].

## Research Results

The study of the spread and damage of wheat root rot in the conditions of irrigated agriculture in the Republic of Uzbekistan shows that this disease is widespread in the farms of the Tashkent region, and this disease was observed during the period of its greatest development. The results of the research showed that the most development of the disease was recorded in the farms of the Uz Research Institute of Plant Science, Experimental station of Tashkent State Agrarian University, and the least in the farm named after G. Abdullaev. The results of the research showed that the highest yield of grain was in the farm "Uzbekistan" in Chinoz region (40.5 s/ha), and the lowest in Uz Research Institute of Plant Science in Qibray region (22.8 s/ha) indicates that it is obtained.



From these data, it can be seen that root rot has a negative effect on grain yield and that crop losses are not significant if wheat cultivars are renewed annually and crop rotation is observed on farms (Table 1).

It should be noted that the most development of root rot in wheat appeared in the fields where cotton was grown before.

It is also necessary to pay attention to the following rule: if another crop is planted after cotton, then cotton is planted again, wheat has a higher susceptibility to root rot than other predecessors. This can be explained as follows: cotton is infected with root rot, and therefore the infection persists in the soil and, under favorable conditions, also appears in wheat [5, 6].

According to the information given by J. T. Dziembaev [1,2], the same wheat varieties are affected by different predecessors and in different years to different degrees.

We got similar results. So, on the farm named after G. Abdullayev in the Tashkent region, the "Intensiv" variety was planted for three consecutive years, at the same time, rotation of wheat was observed, the level of development of the disease did not increase over the years.

Of all the varieties examined, the Intensive variety was the most resistant to root rot disease compared to other varieties. The fertile variety turned out to be more susceptible to the disease.

**Table 1. Damage of root rot disease of wheat in the fields of Tashkent region**

Tekshiruv joyi	Var	Previous crop	Disease progression, %	Damage coefficient, %	Grain crop 1 ha/s	Crop loss, %
Kibrai district, Experimental station of TSAU	Sanzar-8	Wheat	22,7	11,8	30,8	10,4
Kibrai district, "Limonchilik" farm	Intensive	Peas	14,1	8,6	41,2	8,3
Kibrai district, Uz Research Institute of Plant Science	Unumli	Cotton	24,1	10,1	22,8	9,8
Tashkent district. Farm named after G. Abdullayev,	Intensiv	Corn	9,8	8,5	42,5	8,4
Orta-Chirchik district "New Life" farm	Skifianka	Cotton	17,1	6,8	30,5	6,8
Buka district. Farm named after J. Khojimetova,	Yenbosh	Cotton	19,9	9,2	32,2	9,0
Chinoz district "Uzbekistan" farm,	Skifianka	Wheat	9,9	7,0	40,5	8,0
Kibrai district, "Turon" farm	Intensive	Tomato	11,2	8,0	41,5	7,9

The above data show that the introduction of crop rotation for wheat limits its susceptibility to root rot.

Crop rotation helps increase soil fertility, improves water regime, activates soil mycoflora and has



a positive effect on the development of wheat, increasing its resistance to pathogens.

### Conclusion

Thus, the following conclusions can be drawn based on the conducted research: The harmfulness of the disease is in the reduction of the length of the stem, the number of grains in the spike and the decrease in the length of the spike, as well as in the deterioration of the sowing quality of the seeds, in the incomplete ripening of the seeds and the appearance of empty grains. observed.

In limiting the development of root rot of wheat, wheat predecessors had a great effect. Previous crops such as peas and corn have been most beneficial in controlling the disease.

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