

DISTRIBUTION OF DISEASE TYPES IN PLANT ORGANS

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Annotation. The article provides information on the analysis of diseases of coniferous plants and the distribution of micromycetes of pine trees in the conditions of the Fergana Valley based on the research.

Key words. Forests, temperature, oxygen, carbonic anhydrite, Fusarium, Alternaria, Hormiscium, Dothistroma, Pinus sylvestris, Phomopsis juniperovora.

In the course of the study, information on the infected part of the plant, the infected degree score, and the disease symptoms of the detected pathogens in the oleander plant species was given (Table 1).

It is the most dangerous rot disease in seeds and seedlings, and it was noted that this disease is caused by such fungi as Fusarium oxysporum, F. solani, Alternaria alternata, Botrytis cinerea, Verticillium dahlia and G. debaryanum.

Especially due to this disease, it was noted that the germination of Crimean pine seeds decreased by 70%, and sprouts died by 90%.

Spruce tree family members are affected by mold up to 2 points, root rot disease in seedlings up to 3 points, branch rot disease up to 2-3 points, and spots on leaves up to 2 points, pine tree family species are infected with mold. It was noted that up to 2 points, the disease of branches up to 3 points, spots and darkening of leaves up to 1-2 points.

As the body of newly sprouted sprouts gradually strengthens, the resistance of seedlings to diseases increases.

In the distribution of disease types by plant organs, depending on the bioecological characteristics of the host plants and based on the identified fungal

species and disease development characteristics, we focused on the plant organs and seasonal development of diseases.

The distribution of micromycetes of pine trees in the conditions of Fergana Valley was studied throughout the year in spring, summer and autumn seasons.

The spread of micromycetes depends on their bioecological characteristics, various, i.e., abiotic (environmental influence, temperature, soil moisture, precipitation), biotic (pathogenic parasitic insect, viral, bacterial and fungal diseases) and anthropogenic factors.

On the basis of observing the characteristics of the seasonal development of diseases by plant members, there will be opportunities to study the conditions of development of diseases caused by certain groups of fungi and the laws of seasonal change of diseases. Identified diseases were divided into 5 types or groups with similar symptoms and common names. We do not use the expressions "types of diseases" for nothing. Because the symptoms of one type of disease may be present in another type. These types are diseases such as blight on branches, leaf spotting, blackening, powdery mildew, fusarium root rot and wilting. The obtained data are presented in Table 3.7. If we pay attention to the data in the table, the most common disease is the blight disease in pine and spruce, in which up to 14 species of fungi are involved.

It was noted that many diseases of the leaves and stem of the plant were infected with this disease during the germination and seedling periods. In general, it was noted that leaves and stems of palm trees are severely affected by diseases during the germination and seedling period and from the limbs.

In the course of the research, it was noted that root rot and Fusarium disease were particularly important in seedlings.

The types of diseases detected during our research include different fungi found in different stages of growth of pine trees (Table 1). Most of them are considered saprotrophs and develop in different body parts of the plant. Fungi that cause spotting diseases are dangerous for seeds and seedlings, causing them to die.

In terms of the number of species and damage, it is considered an important group of diseases, which causes the development of diseases in palm trees and shedding of palm leaves.

Table 1

Distribution of disease types by plant organs

Types of diseases	Damaged trees		Stage of plant development			Damaged parts of the plant			
	pine	juniper	seed	sprout	seedling	bud	nina leaf	noda	root
Mold	4	4	4	-	-	4	-	-	-
Root rot	3	3	-	4	4	-	-	-	4
to build	9	5	-	-	-	-	-	14	-
Spotting	4	-	1	-	-	-	3	-	-
Darkness	3	1	-	-	-	-	3	-	-
dusting	1	-	-	-	-	1	1	-	-
Rust	1	1	-	-	-	-	-	2	-
Total	39	14	4	4	4	5	7	16	4

Diseases are strongly manifested in the body, leaves and branches of the plant. The most important type of disease in terms of risk is seed and seedling rot, which includes *Fusarium oxysporum*, *F. sporotrichioides*, *Altenaria altemata*, *Botrytic cinerea*, *Verticillium dahlia* and *G. debaryanum* (R. Hesse) Uzuhas'hi, Tojo & Kakis'h. (=Pythium debaryanum (DC.)) fungi are involved. The disease causes severe death of pine seedlings and ranks first among the diseases in the preparation of planting material.

Damage occurs as follows; a brown fungal mycelium appears on the damaged tissue, the seed leaf does not swell and the plant dies. The plant lags behind in growth in the phase of true leaf release, the affected stem thickens, the leaves keep their erect position but change color, the roots show signs of rotting. The disease can rarely be observed in the upper stages of plants. If we pay attention to the dynamics of the development of root rot disease in nurseries, the

death of seedlings due to the disease occurs mainly in the period when the seeds are sown - in the spring.

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