

**ELIMINATION OF BLACK MELL DISEASE IN SURKHANDARYA CLIMATE
AND MEASURES**¹Khidirov Bobur Tojimurodovich, ²Musurmonov Abror Alisherovich, ³Choriyev Jahongir Olimjon o'g'liLecturer at the Denau Institute of Entrepreneurship and Pedagogy¹, DTPI Biology students^{2,3}**ANNOTATION**

The *Ustilaginales* order of the fungal world or black moth fungi, is important in phytopathology and causes many diseases in plants. In the dicarotic phase of the developmental cycle in nature, these fungi are obligate parasites of flowering higher plants. Blackhead infections are often local, but can be systemic. Manifestations and effects of species that pose a serious threat to agricultural crops. Development cycles of fungi that cause hard and powdery mildew in wheat and agro-technical measures in control.

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It has a significant impact on productivity, especially in tropical and subtropical countries. The so-called black moth disease is the formation of powdery spores (teliospores) in plant tissues, resembling the remains of a fire. Various parts of plants—the stems of leaves, sometimes even the roots—are damaged, but blackberries are usually affected by the reproductive organs (flowers, spikes) of many plant species. Some are perennial (chronic) infections in some host plants, wintering in pathogenic plant tissues and in the spring the newly grown plant is already damaged. Plant such as wheat, barley, millet blackberries (*Tilletia ustilages*), corn bubbles (*Ustilago maydis*) and oat powdery mildew (*U.avenae*) are diseased, yields are reduced and product quality deteriorates sharply. The prevalence of this disease, which has a serious impact on yields, under moderate conditions, requires the introduction of important agro-technical measures to combat the proliferation of chladospores of the fungus in soil structures over the years. An important feature of an infected plant is that it darkens as a result of damage by fungal spores instead of grain after the cluster has matured. These pollens are the perennial chladaminospores of the black moth, which are spread by infected seeds. Diseases are divided into 4 groups according to their origin:

1. Infection of the seed as a result of infection by fungal spores. The surface of such seeds is damaged by chlamydo-spores of the black moth fungus during seed collection, cleaning, storage and transportation. These factors play a key role in the overall damage to wheat.
2. These factors play a key role in the overall damage to wheat. In powdery mildew of wheat and barley, the colorless mycelium of the fungus is infected inside the seed by chlamydo-spores that fall during the flowering period of the plant.
3. During the growing season (from sowing to ripening), bubble black moth disease of corn and millet is caused by wind-borne spores.
4. The source of infection in wheatgrass is chlamydo-spores, which remain in the soil 4 years and infect grasses during seed germination.

In general, black moth disease is divided into severe black moth and powdery mildew according to the origin and manifestation, internal and external symptoms. In severe black moth disease, the epidermis of the seed is damaged and the seed coat remains intact. The inside of the seed coat is filled with chlamydial spores of the fungus. The disease is completely contagious. Rapture of the seed coat causes wind damage to all field plants. Such factors can lead to complete loss of yield. The causative agent of

powdery mildew is *Ustilago tritici* Jens a type of fungus that produces mycelium and spores throughout its life and is manifested during the formation and flowering by the process of wind-infected plants attaching to the flowers of healthy ones and entering the seed pods to the nodes. The appearance of wheat grains is not different from that of healthy grains, the seed coat contains mycelia hyphae of dust mites. The temperature should be 20-25 degrees and the humidity should be above 50%. Under such conditions, the spores spread rapidly.

From an economic point of view, this is a very important procedure, as blackberries cause great damage to valuable agricultural crops and ornamental crops. Many common species of blackberries cause the loss of much of the grain crop that provides food for most people in the world. In a field heavily infested with hard blackberries the dust of teliospores rising into the air while harvesting with a combine can explode under the influence of sparks emitted by agricultural machinery. In addition, teliospores are allergenic and their powders can cause allergies in workers. The duration of cold days, the availability of effective temperatures, the presence of artificial irrigation in dry and hot summers and in many cases the presence of sufficient soil moisture conditions lead to the spread of black moth disease. Complex measures are important in the fight against it. Seeds should be obtained from a healthy plant and stored in good conditions for normal growth of crops and increase their resistance. Regular monitoring of the level of disease in the fields, sowing the seeds in soil-friendly environmental conditions will reduce the damage. It is important to follow the data collected as a result of regular inspections. As a result of the control it is strictly forbidden to harvest seeds from more than 2-5% of diseased fields. It is also important to pay attention to the distance between crops and crop rotation. Because the next crop should not be involved in the development of the fungus. Proper fertilization and microorganisms also need to be managed properly. Black moth seeds are easily controlled with medicinal fungicides. Some fungicides are also effective against smallpox, but due to the availability of highly resistant varieties, the chemical method against this pathogen is not widely used in the US. Timely adherence to all agrotechnical measures and strengthening control over them is an important and urgent task in the elimination of black math.

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