

PYRICULIARYOS DISEASE OF RICE AND MEASURES TO CONTROL IT

Talibjanov Okhunjan

Assistant of the Andijan Institute of Agriculture and Agrotechnology.

Abstract. The rice plant is cultivated in large quantities in our country. At the same time, the population has a great demand for rice products obtained from this plant. At the same time as the population of Uzbekistan is increasing, the number of various diseases in rice is also increasing, or diseases are spreading widely and causing serious damage to productivity. Our research has shown that one of the most common diseases in rice stalks is Piricularia disease. During the vegetation period, various disease symptoms are invisible in the rice plant, one of them is serious damage with symptoms such as breaking of the rice stalk, darkening of the root neck. is bringing From this article, you can learn about the rice piricular disease and the measures to fight against it.

Kalit so‘zlar: Sholi, Pirikulyarioz, Hyphomycetales tartibiga mansub Piricularia oryzae Br. et Cav. takomillashmagan zamburug`i va azotli o`g`itlar

Introduction. The implementation of the decision of the President of the Republic of Uzbekistan "On measures to rapidly develop the food industry of the Republic and fully provide the population with quality food products" dated September 9, 2020 No. PQ-4821 The Cabinet of Ministers made a decision in order to provide further support to newly established promising projects on the production of food industry products. Within the framework of the law, practical work is being carried out on the ground.

Rice content: Rice is a source of several B vitamins, including thiamin-B1, riboflavin-B2, niacin B3 and B6, vitamin RR, carotene, a vitamin that strengthens the nervous system and has a positive effect on skin, hair and nails. Rich in E's. Rice contains a sufficient amount of trace elements such as potassium, phosphorus,

zinc, iron, calcium, iodine and selenium necessary for the human body. Rice contains complex carbohydrates, therefore it is a nutritious, low-calorie product that does not cause a person to lose weight.

Rice contains 8 different amino acids necessary for the formation of new cells in the human body. Rice grain consists of 7-8 proteins. One of the positive factors in rice is that, unlike other cereal products, it does not contain a plant protein called gluten, which causes an allergic reaction in humans. In addition, it contains lecithin, a substance that activates brain activity, oligosaccharide, which restores intestinal tract activity, and gram amino fatty acid, which helps maintain blood pressure. Rice contains a lot of potassium, this mineral combines with other food products and neutralizes the effects of salts that enter the body. The more the grain of rice is processed, the less vitamins and minerals it contains. There is no product comparable to rice in terms of the amount of aluminum and copper in its composition.

Piricular disease. Symptoms of the disease appear in all above-ground parts of the plant during the entire growing season. Dark brown spots with various shapes and gradually increasing in length, 3-4 cm in length appear on the leaf sheath and leaves. Later, the spot turns dark brown and the leaf dries up. On the lower side of the leaf, a gray powder is formed in place of the spot. When the stem is damaged, long spots are formed on them, the joints darken, soften, and as a result, the stem breaks. Sometimes the upper part of the stem and the furrow turn black and rot. Damaged furrows dry out prematurely, or they form empty grains. Sometimes the furrows become grainless. When the leaf sheath and leaf are severely damaged, the buds may not appear, and the plant will have a burnt color.

The causative agent of the disease is *Piricularia oryzae* of the Hyphomycetales order Br. et Cav. immature fungus. It forms a multicellular colorless mycelium located between the cells of the plant tissue. A conidial spore is formed in the mycelium and protrudes through the mouth to the surface of the leaf.

It is spread by conidia of the fungus during the vegetation period of plants. Their development takes place at high humidity and temperature from 15 to 35 C0. The most favorable conditions occur when the temperature is 22-24 C0 and the relative humidity is 90-95%, and the disease can develop so rapidly that the total death of the crop is observed. Conidia die at a temperature of 51-52 C0. The fungus is stored in the form of mycelium in the stalk and straw, as well as in the seed, its surface, under the flower and fruit peel, endosperm and pulp. According to information, the fungus is killed by soil microorganisms, but it overwinters very well on the surface of the soil, therefore, it can serve as a source of infection. *P. oryzae* also develops in many cereals, so such crops can be an additional source of infection for rice.



Figure 1. Calvary and microscopic appearance of piricularia disease

P.oryzae has a stimulating effect on the vitality of saprozoic nematode species, as a result of which they accelerate the process of tissue decomposition and cause the death of the plant.

When infected with piricular disease, the germination of seeds decreases, grasses die, some plants become dormant during the growing season, less grains are produced in the ear, and poorly developed or empty grains are formed. 20-25% or more crop can be lost due to disease.

System of measures used against rice diseases. In the system of measures used against rice diseases, special importance is given to the release and application of new resistant varieties, as well as the correct organization of crop rotation. Perennial leguminous grasses, legumes and legumes are the best predecessors for rice. The seeds are collected from healthy fields, calibrated and treated with preparations listed in Appendix 1. Wet treatment of seeds (10 kg of suspension: 8 l of water + drug) also gives good results. Treatment is effective against pyriculariosis, root rot, helminthosporiosis, bacteriosis and other diseases. After processing, the seeds are soaked for 24 hours under a tarpaulin and lightly dried.

Planing of the floors before planting is carried out in order to eliminate the lateral germination of lawns and the development of root rot diseases and disease-causing pests. Planned lands are treated with any of the appropriate herbicides approved for use in agriculture in our republic (6-12 l/ha). This event is aimed at eliminating weeds - reservoirs of many pathogens. After spraying the herbicide, the soil is fertilized.

It is very important to plant rice on time. In the previous years, if piricular disease developed strongly in the field, it is watered as soon as the seeds are planted (with a thickness of 20-25 cm in 5-6 days).

In the fight against pyriculariosis and other diseases, apply DUPLET TT 22.5% em.k, 0.4 l/ha, FOLIKUR BT 22.5% em.k 0.4 l/ha TOPSIN-M, 70% n, one to three times .cooking 0.4 l/ha suspension of drugs by airplane spraying gives high results. In this case, the first spraying is carried out according to the "flag", the second at the beginning of flowering, and the third (when piricular disease develops strongly) ten days after the second. Spraying must be stopped at least 20 days before harvesting.

As with any other plants, the correct application of fertilizers according to the agrochemical parameters of the soil increases the resistance of plants to diseases.

It is also very important to systematically fight against disease carriers - insects and pathogen reservoirs - weeds. In particular, it is necessary to regularly remove the spiky grass growing in the ditches around the rice fields.

Removal of weeds, deep plowing of the land in autumn, timely processing of seeds and their proper storage, as well as regular checking of signs of pathogenicity in crops are necessary measures in rice cultivation. Crops with helminthosporosis, bacterial and viral diseases are harvested separately. It is strictly forbidden to use grain from this area for seed purposes. Quarantine measures are also taken seriously in rice cultivation.

Reference

1. E.A. Kholmurodov, M.A. Zuparov, R.K. Sattarova, N.T. Khakimova, Kh.Kh. Nuraliyev, Kh.Sh. Bekbergenov and S.E. Avazov Agricultural phytopathology ISBN 978-9943-10-641-3 Tashkent 2014.
2. Bo`riyev X.CH., Abdiqayumov Z.A. Sabzavotchilik. –T.: Bioekosan, 2008.
3. Torayev M.T., Karimova M.Kh., Zohidov M.M., Nurmuhamedov D., Kasimova N.T. The list of pesticides and agrochemicals approved for use in agriculture of the Republic of Uzbekistan - T., 2007.
4. Sh.T.Xo`jaev O`simliklarni zararkunandalardan uyg`unlashgan ximoya qilish, agrotoksikologiya asoslar.
5. Xasanov.B, Ochilov. P.O. Gulmurodov. P.A. Sabzavot, kartoshka xamda poliz ekinlarining kasalliklari va ularga qarshi kurashish choralari.
6. Tolibjonov Oxunjon Odiljon o`g`li, Muydinova Kamola Baxtiyor qizi, ANORNING FOYDALI XUSUSIYATLARI VA UNI UZOQ VAQT DAVOMIDA SIFATLI SAQLASH SIRLARI., Tadqiqotlar: Vol. 9 No. 1 (2023):" TADQIQOTLAR jahon ilmiy-metodik jurnali| 9-son| 1-qism"
7. Tolibjonov Oxunjon Odiljon o`g`li, Sharofiddinnov Bekzodjon Dilshodjon o`g`li, MIKROBIOLOGIK PREPARATLARININGNING QISHLOQ

XO‘JALIGIDAGI AXAMIYATI, Tadqiqotlar: Vol. 9 No. 1 (2023):"
TADQIQOTLAR jahon ilmiy-metodik jurnali| 9-son| 1-qism"