

Peanut Diseases Found in Surkhondaryo Region and Measures to Control Them

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Annotation. The effect of mineral and organic fertilizers on the production of abundant and high-quality crops from peanut crops is high, and the rate of nitrogen, phosphorus and potassium fertilizers is determined depending on the soil and climate conditions. It is appropriate to specify. Taking this into account, it is of strategic importance to continue scientific and research activities on the implementation of measures to combat disease-causing fungi.

Key words: pathogen, peanut crops, fungal species, fungus, soil, fertility, development periods, alternariosis, pathogenicity, infection, fungicide, genus, parasite.

Introduction

In the southern regions of our republic, it is recommended to plant in the first and second ten days of April. The most common diseases in peanut cultivation are the following. Root rot disease, stem rot disease, leaf spot disease, etc. Groundnut is an annual plant belonging to the legume family, an oilseed. Homeland South America (Brazil). The root of the ground nut is a shoot, penetrates deep into the soil, and forms nitrogen-accumulating nodules. The stem is herbaceous, 50-60 cm tall, branched, upright, side branches grow in the ground. In each leaf axil there is an inflorescence (shingle). Flowers are bisexual, yellow, golden. The underground flowers do not open, they pollinate themselves. Flowers above the ground are pollinated from outside. After the flower is pollinated, the bud first grows vertically, then downwards, penetrates the soil at a depth of 8-10 cm, and the fruit (pod) is completed. There are 2-4 seeds in a pod. The weight of 1000 seeds is 200-1500 g (400-500 g on average). One bush has up to 700 pods. The following varieties are grown in Uzbekistan. Tashkent 112, Tashkent 32, Perzuvan 4612, Qibray 4 varieties are considered.

Method of conducting research. Peanut is a plant that requires climatic conditions. Peanut is a warm climate crop that produces well in tropical and subtropical regions. It is a demanding plant for heat, water, soil fertility and nutrients. In regions where cotton can be grown, peanuts can be grown.

If the heat level is sufficient, it will ripen in 4-5 months. Seeds germinate at soil temperature of 5-40°C. The optimum soil temperature for germination is 32-36°C. It is recommended not to start planting seeds before the soil temperature rises to 15-25°C. When there is a shortage of water and the temperature exceeds +36 °C, the yield decreases by 45-50% during the flowering and seeding phases. During the ripening process, the average daily temperature should not fall below +22°C. In the areas where peanut cultivation is carried out, the temperature difference between day and night should not exceed 12°C-14°C. [1,4,6].

Research results. Root rot (*Aspergillus niger*). It is the most widespread disease in the areas where peanuts are grown. Based on factors, it occurs in light soils at temperatures between 35-37°C. From year to year, it is formed by decaying plant residues in the soil. It also goes with the seed. Light-colored burnt spots appear on the seeds affected by this disease. The first symptoms of the disease begin with the accidental wilting of all or some of the plant's crowns. It can be separated by rotting in the joint where the first leaves have emerged and the throat adjacent to it [2,7,8].

Infected tissue first acquires a brown color, and over time changes to a pale color. Nectoral tissue becomes visibly fibrous. The most common places of natural infection are the places near the root neck. Infected plants usually die within 50 days of planting. The pathogen (disease) usually causes pre-emergence rot during the seedling period and, in very small amounts, throughout the growing season, causes the death of peanut plants, resulting in small gaps in the field. The disease occurs mainly in light soils in different types of soil in groundnut cultivation areas.

Drugs used against root neck rot in peanuts

The name of the active substance	Consumption rate (preparation/100 kg of seeds)
Chlorothalonil 75%	500g/100kg seed
Mancozeb 60%	500g/100kg seed

Stem rot (*Sclerotium rolfsii*). It is one of the common diseases in the areas where peanuts are grown. Pertains to seed and soil. It causes great damage mainly in sandy soils with high fertility and humidity. Plants suffering from this disease first show themselves by the yellowing and wilting of the crowns, later the leaves and crowns turn dark brown, and white spots appear on the lower parts of the plants [3,5,12].

If peanuts are continued to be planted in fields affected by this disease, it may not be possible to get any harvest in the coming years. It is necessary to effectively use cultural methods in the fight against it. For this, the selection of disease-resistant varieties and the use of long-term crop rotation are the most effective methods. It is scientifically proven that planting this crop as a repeat crop after the main crop wheat prevents the spread of this disease. Avoid mechanical damage to plants when weeding and weeding. Because the injured tissue leads to the spread of diseases.

After harvesting, the plant residues must be removed from the field, because the pathogen-causing agents must be removed from the field. If necessary, it will be necessary to burn and bury it deep. If these methods do not give enough benefit, it is necessary to fight with chemical means [11,13].



Figure 1. The process of conducting research in laboratory conditions

Sulfur (Sulphur) is pollinated during the growth period of the plant against the pathogen of powdery mildew, which harms all types of crops. Processing is completed 15 days before harvest. It is used a maximum of 5 times in one season. The rate of consumption is 15,0-30,0 ha/kg per hectare [6,8,9].

Summary. If peanuts are continued to be planted in fields affected by this disease, it may not be possible to get any harvest in the coming years. It is necessary to effectively use cultural methods in the fight against it. For this, the selection of disease-resistant varieties and the use of long-term crop rotation are the most effective

methods. It is scientifically proven that planting this crop as a repeat crop after the main crop wheat prevents the spread of this disease. Mechanical damage to plants should be avoided during soil fertilization and weed control. Because the injured tissue leads to the spread of diseases. Peanuts do not require a lot of water.

It is watered 4-5 times during the growing season, and 6-7 times in gravelly soils. Blackening of peanut pods before ripening is observed. This disease is caused by a violation of the irrigation procedure, that is, overwatering and excessive watering. Therefore, it is better to take the egates higher [10,11].

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ЗАБОЛЕВАНИЯ АРАХИСА ВЫЯВЛЕННЫЕ В СУРХОНДАРЬИНСКОЙ ОБЛАСТИ И МЕРЫ БОРЬБЫ С НИМ

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Annotatsiya. Влияние минеральных и органических удобрений на получение обильных и качественных урожаев от посевов арахиса велико, а нормы азотных, фосфорных и калийных

удобрений определяют в зависимости от почвенно-климатических условий, что целесообразно уточнить. Учитывая это, стратегическое значение имеет продолжение научно-исследовательской деятельности по реализации мероприятий по борьбе с болезнетворными грибами.

Kalit so'zlar: возбудитель, культуры арахиса, виды грибов, гриб, почва, плодородие, периоды развития, альтернариоз, патогенность, инфекция, фунгицид, род, паразит.

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SURXONDARYO VILOYATI SHAROITIDA UCHRAYDIGAN YERYONG'OQ KASALLIKLARI VA ULARGA QARSHI KURASH CHORALARI

Annotatsiya. Yeryong'oq ekinidan mo'l va sifatli hosil yetishtirishda mineral va organik o'g'itlarning ta'siri yuqori bo'lib, azotli, fosforli va kaliyli o'g'itlarni qo'llash me'yorini tuproq-iqlim sharoitlaridan kelib chiqqan holda belgilash maqsadga muvofiq. Shuni hisobga olgan holda, kasallik qo'zg'atuvchi zamburug'larga qarshi kurash tadbirlarini amalga oshirish yuzasidan ilmiy-tadqiqot ishlarini davom ettirish muhim strategik ahamiyatga egadir.

Kalit so'zlar: kasallik qo'zg'atuvchisi, yeryong'oq ekinlari, zamburug' turlari, zamburug', tuproq, unumdorlik, rivojlanish davrlari, alternarioz, patogenlik, infeksiya, fungisid, turkum, parazit.