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DISEASES OF THE COTTON PLANT AND ITS ANALYSIS

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Annotation
In this article, the causes of disease in Gaza include viruses, mycoplasmas, bacteria, fungi, nematodes, and physiological changes. There are 18 known cotton diseases caused by viruses and mycoplasma organisms in the world, but none of them is found in Uzbekistan. The only bacterial disease in cotton is gonorrhea, which is one of the most widespread and dangerous diseases in Uzbekistan.

Keywords: Tetraploid, microorganism, seed, seed, homozygous, fungus, quarantine, disease, "blue disease", "escobilla", cotton

Introduction

The first information about cotton diseases was written in 1903 by A. A. Yachevsky. In 1918, Professor NG Zaprometov wrote an article on cotton diseases in Turkestan. The systematic study of cotton diseases in Central Asia began in 1926, and especially in 1929, with the establishment of an experimental station for the study of cotton diseases and pests in Tashkent. At present, cotton diseases have been adequately studied and measures to combat them have been fully developed. There are more than 100 diseases in cotton in the world, and they destroy a large part of the crop. According to the Cotton Disease Council, between 195.5 and 1997, the United States produced between 10.5% and 20.4% of the annual cotton crop under the influence of major cotton diseases. an average of 13.1% deaths were reported. In other words, diseases cost an average of $ 333 million a year. (570 million in 1981, and now several times more) The loss of the US dollar is estimated. The prevalence of cotton diseases varies, with some being widespread in all regions of the world, while others can only occur in 1 or 2 countries or 1 or 2 regions. For example, charcoal rot is found mainly in parts of India and Pakistan, while the virus-causing "blue disease" is found only in Central Africa, escobilla (a type of anthracnose) in Venezuela and Brazil, and Texas root rot in the southern United States. - occurs in the alkaline black soil regions of the western states and northern Mexico. This means that in all cotton-growing regions of the world there is a complex of diseases of cotton seeds, seedlings and roots, as well as two or three other major diseases. Therefore, it is imperative that cotton farmers, and especially plant protection specialists, be able to identify diseases that pose a

threat to cotton in their regions, their stages of development, and the types of pathogens; this knowledge enhances their skills and is a great help in selecting, planning and implementing control measures. Pathogens in cotton include viruses, mycoplasmas, bacteria, fungi, nematodes, and physiological changes. There are 18 known cotton diseases caused by viruses and mycoplasma organisms in the world, but none of them is found in Uzbekistan. The only bacterial disease in cotton is gonorrhea, which is one of the most widespread and dangerous diseases in Uzbekistan. Fungi cause many diseases in cotton. These include germinating seeds, seedling and root rot, verticillium wilt and fusarium wilt, leaf and fiber stains, quarantine diseases, and more. Although 18 species of nematodes have been found in cotton in Central Asia or in the cotton rhizosphere, and 15 in Uzbekistan (Kiryanova, Krall, 1971), only one or two gall-forming nematode species in the southern regions of the country cause damage to crops. lum, xolos. The main causes of physiological diseases are a sharp drop in temperature, poor loosening of the soil and its topsoil, heavy rain or hail, lack or excess of nutrients to the plant, water shortage, pesticide misuse and other abiotic factors. Keeping the moisture content of seeds and cottonseeds below 11%; obtaining seeds from pure cotton; regular monitoring of the temperature of cotton intended for seed production, immediate ginning of balls with a temperature exceeding 48 0C; the seed should be aerated with cold air, and the seed with a high temperature should not be used for seed (oiling, etc.). As far as possible, acid-deficient, calibrated seeds should be used; light, unripe seeds that are resistant to microorganisms are removed. Typically, seeds with a specific gravity greater than 1.0 (submerged) are less damaged than light seeds. The acid used in the desiccation process rids the seed of parasitic microorganisms on its surface.

In order to prevent rot of sown seeds, it is necessary to create and use varieties of cotton that are resistant to seed mold. Considering the ability of the seed to grow at low temperatures, its germination in field conditions and its resistance to microorganisms, the use of seeds with a germination capacity of at least 90% at 18 0S for use as seeds expedient. (Halion, Bourland, 1981). Treatment of seeds with one or more mixtures of highly effective and broad-spectrum fungicides against microorganisms, especially parasites and fungi, is one of the important conditions for the smooth and smooth germination of cotton seedlings. Cotton - a family of plants belonging to the genus Cauliflower; a crop of machinery planted to obtain cotton fiber. It consists of 3 subfamilies (Gossypium, Karpas, Sturtia). These include annual and perennial shrubs, trees, and tropical shrubs and grasses. There are 50 species of GOZA. There are diploid (2 l = 26) and tetraploid (2 p = 52) chromosomes in the Cotton family. According to the composition of the genome, they are divided into 6

groups (A, V, D, S, Ye, G`). Genome in tetraploids AD. Species are easy to mix within groups, and difficult to mix between groups, or hybrids are completely infertile. Indo-Chinese, African-Asian, Mexican, and Peruvian cotton are grown as fiber crops (see Wild cotton, Cultural cotton). COTTON in agriculture. one of the crops. The use of fiber from cotton began in ancient times - the Paleolithic period. HOZA is native to India. In the Indian Valley mil. 3,000 years ago, cotton was grown and spun yarn was made from it. Cotton was also known in China, Iran, Peru and Mexico centuries ago. According to archeological data, it was cultivated in Central Asia from the 6th to the 5th centuries BC. From the 10th century it spread to Spain and other European countries. COTTON is grown in more than 80 countries around the world. The main cotton-growing countries are China (3.7 million hectares, 30.6 million tons, 11.4 million tons), the United States (5.4 million hectares, 17.5 million tons, 9.5 million tons). t), India (9.0 mln.ha, 6.9 s / ha, 6.2 mln.t), Pakistan (2.9 mln.ha, 15.3 s / ha, 4.4 mln.t) . It also occupies large areas in Brazil, Turkey and Egypt. By the end of the 20th century, the main cotton-growing countries were China with 3.8 million tons, the United States with 3.6 million tons, India with 2.0 million tons, Pakistan with 1.5 million tons and Turkey with 0.8 million tons; 18.2 million worldwide t cotton fiber was grown (1999). Uzbekistan ranks 4th in the world in terms of cotton fiber production (cotton area is 1440.8 thousand hectares, yield is 24.5 s / ha, gross yield is 3537.1 thousand tons; 2004). Botanical description. The root system is strongly developed, star-shaped, widely branched, penetrates into the ground 2.4-2.6 m, the main part of the root is located in the arable layer of the soil. Stems erect, branched, 70-150 cm tall. Straight from the axils of the lower leaves develop long (monopodial) branches, which protrude from the main stem at an acute angle. It is structurally similar to the main stem, and can be replaced if the stem is damaged or killed for any reason. The leaves are sessile, slender or thick, often green, 3-7 lobed. The first true leaf appears 7-10 days after germination, the second 4-5 days. With the opening of the cocoon, the emergence of new leaves slows down, and the shedding of old leaves accelerates. By the end of the growing season, 20-25 or more leaves have formed on the main stem. [[Flower bisexual, large; It consists of a flower, petals, a cup, a flowerpot, a pollinator and a seed (see [[Flower)). COTTON - flowering plant; The glands are inside and outside the flower. The nodule is 4-5 cells in medium fiber fibers and 3-4 cells in fine fiber fibers. Each hive has 5-9 or more seed buds. The fruit consists of 3–5 cups, cups, fruit stalks, petals, cups, fruit layer, central seed, seeds and fibers. In some species of cotton (jaydari cotton) the pods do not open, and in some species the pellets open so wide that even the cotton falls to the ground. The seeds are in the form of eggs or pears, en. 0.6-1.5 cm, the diameter of the thickest part is 0.5-

0.8 cm. The long ones are mostly covered with white fibers and often short hairs. Planted cotton fiber uz. 25–55 mm, easy to spin, easily detached from the seed coat, the hairs are short (4–6 mm), thick, coarse, difficult to separate from the seed. The skin of the ripe seed is dark brown. In the early stages of development, the seeds are rich in carbohydrates, and as they ripen, they accumulate high-molecular-weight nitrogen compounds and fats. The mass of 1000 seeds is about 80-160 g. Biological properties. The minimum temperature for the beginning of the life of the seed is 10-12 °. When there is sufficient humidity, aeration, and light, the temperature begins to drop to 13-14 °; 5-7—15-15 days after sowing, the seedlings germinate completely. About a month after germination, the first stem is formed, and after another 25-30 days, the flower appears. COTTON Self-pollinating plant (external pollination is rare). Depending on the biological characteristics of the variety, the first pods ripen 50-60 days after flowering. The average vegetation period is 110-145 days. During the growing season, GOZA (depending on the variety and growing region) needs a total active temperature of 3100 ° -4900 ° (effective 1700-2200 °). At -1-2 ° the seedlings die. The average daily temperature of 25-30 ° is optimal for growth, development and harvesting. COTTON is a short-day plant, but it grows normally even in 13-15 hours of daylight. [[Requires maximum water during flowering and harvesting. The total demand for water is 8-10 thousand m3 per hectare. COTTON can grow in swamps, sandy and grasslands, and in various other soils, but does not like shady places, moisture, and is resistant to strong winds, especially garmsel. Does not grow in saline soils. Economic importance. Cotton is a valuable technical plant; Cotton products are widely used in textiles, clothing, chemicals, aviation, automobiles, food and other industries. Clothes and technical fabrics are made of cotton fiber. Lingp, cottonseed oil, kunjara, shulkha, shrot are obtained from the seeds. Cottonseed oil (22-29% of seeds) is a valuable food product, rich in glycerides, vitamins E, A and provitamin D, as well as linoleic acid. Cotton stalks and sorghum are high quality nutritious fodder for livestock. Protein feed isolated from cottonseed is given to young animals in place of milk. Cotton stalks are used in the production of cellulose, paper, cardboard, furniture tiles. The leaves contain citric, malic acids, growth stimulants, and the pelvis is used to produce xylitol.

Cultivation technology i. COTTON is grown alternately in the fields, of which cotton-alfalfa and cotton-grain al-mashib are common. Chemicals play an important role in agro-technical measures. Norms of mineral fertilizers, their ratio depends on soil-climatic zones, field conditions, variety and its yield. 50–60 kg of nitrogen and potassium, 12–20 kg of phosphorus from the soil to collect 1 ton of medium-fiber cotton; Fine-grained cotton receives 20-25% more nutrients. Trace elements (boron,

manganese, zinc, copper, molybdenum), organic and local fertilizers are used. Sowing takes place in late March-April, when the soil temperature is 12-14 ° for 10 days. begins in the beginning. When sowing, degreased (precision sowing of seeds) or fluffy seeds are used. It is planted in double rows, wide rows (60-90 cm between rows). Seedling thickness is 110-170 thousand seedlings per hectare, depending on soil conditions and biological characteristics of the variety. In Central Asia, Cotton is grown only in irrigated areas. Harvesting begins after defoliation or desiccation in cotton fields. The whole complex of agricultural machinery, cotton harvesting, partial irrigation and some other agro-crops are mechanized.

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