

Requirements for Organic Cotton Growing

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Annotation: organic cotton is considered a pure environmental product. It is grown without chemical preparations, and the environment is not harmed even when grown completely harmless to human health.

Keywords: organic cotton, environmental factors, climatic conditions, water pollution index, ball bonnet, Compass, siderate.

Today, much attention is paid to the cultivation of cotton in an organic way in the world. Organic cotton production has a number of specific requirements.

Environmental factors in the cultivation of organic cotton are taken into account climatic conditions such as air temperature, relative humidity, atmosphere, amount of precipitation, duration of growth period, light, evaporation, wind gust, sum of useful temperatures, as well as soil conditions—soil type, mechanical composition, structure, water-physical, agrochemical, biological properties, fertility, relief conditions – micro, meso, microrelief forms, water supply—surface, groundwater and water quality. Water requirements are also important in organic cotton production. Water pollution index (SII) is used for integral water quality assessment. According to the classification adopted by this index, surface water objects are divided into 7 categories: 1 - very clean (SII-0.3 and less), 2 - clean (SII-0.31-1.0), 3 - moderately clean (SII-1.1-2.5), 4 - contaminated (SII-2.51-4.0), 5 - notose (SII-4.1-6.0), 6 - Very notose (SII-6.1-10.0), 7-excessive notose (SII-6.1-10.0), SII-more than 10.0). When growing organic agricultural products, it is recommended to use 1-3 categories of water.

In the cultivation of organic cotton, the natural fertility of the soil is high (ball bonnitet more than 60), the density of the soil is 1.30-1.35 t/m³, the porosity is 50-55%, the humus content is more than 1.0% in the plowing layer, the natural motile nitrogen in the soil is moderately and highly supplied with phosphorus and potassium nutrients, unsalted or poorly saline (washed), non-lands, it is necessary to adhere strictly to the fact that there are enough land with a natural source of water.

Also, the productive use of crop rotation systems in cotton is one of the important requirements for

the cultivation of organic cotton, with the importance of KHAM mihim of the past and intermediate crops. Example the use of rye, rapeseed, perco as intermediate crops with vegetables in legumes mosh, beans, soybean as a repeated crop after autumn wheat enriches the organic part of the Earth.

As organic product types used in organic production, manure and its juice, biogumus, compost, straw, peat, tree leaves, algae and water mud are used.

In the use of siderat fertilizers in organic cotton production, legumes-cereals are specially planted, grown and plowed in the ground as Green Fertilizer. When siderate fertilizers are applied, the soil accumulates a lot of organic matter, the root of grain legumes contains legume bacteria, which absorb free nitrogen from the air and ensure its accumulation in the soil (up to 200-250 kg/ha). Siderate fertilizers transfer nutrients from the soil from the general form to the mobile form that the plant absorbs, the root system absorbs reserves of mineral nutrients in the deep layers of the soil, improves the water-physical and microbiological properties of the soil, siderate fertilizers lead to saving water. We include alfalfa, soybeans, mosh, donnik, shabdar, vika, chickpeas, rapeseed, beans in plants that are used as siderate fertilizers.

In the cultivation of organic cotton, soils with a medium mechanical composition, pH 5.5-8 are considered optimal.

Particular attention is paid to seed quality, and depending on the climatic conditions of the soil of the area, a cotton variety is selected.

In the cultivation of organic cotton, methods of combating zarakunanda are used without chemical preparations, using natural entomaphages and biological agents. To do this, timely detection of damage is combated, using natural entomaphages such as trichograms, poachers and oltinkos. In addition, biological agents such as Virin, Dentrebacillin, Bitoxybacillin can also be used.

Planting distracting crops around the Acorn field to distract pests again will also work well.

In the fight against weeds, it is necessary to first use coniferous clean seeds, when feeding the soil, use completely rotten compost or vermicompost (biogumus). Biogumus reduces weed seed germination due to the presence of humic acid in its composition, in the soil harmful organisms prevent the development of nematodes. The most necessary factors are the conduct of cultivation activities, mulching the soil, the productive use of a crop rotation system.

In the cultivation of organic cotton, it is impossible to defoliate the reliable side. The yield is less than 20-40 s/ha compared to traditional dexterity.

Feeding begins with the preparation of the Earth at first. In the field, 30-40 t/ha of pure rotted manure or vermicompost (biogumus) is introduced before the autumn plow. During the growing season, it is recommended to use mineral fertilizers as little as possible. Instead, manure juice or various homogeneous biofuels can be used.

Organic cotton is considered a pure environmental product. It is grown without chemical preparations, and the environment is not harmed even when grown completely harmless to human health.

LITERATURE USED:

1. Bahromov K., Kholmurodov N. etc. Gooseberry varieties and features of their cultivation. Tashkent, Labor-1990.
2. Muhammadjonov M, Zakirov A. Acorn agrotechnics. Tashkent. Labor-1995.
3. Team of authors. Protection of acorns from pests, diseases and weeds. Toshkent2002.
4. Recommendations for the stratified use of organic and mineral fertilizers for irrigated crops in Uzbekistan. Tashkent-1987.
5. Kadyrov S., Khudayberdiev S. Cotton-Acorn agrotechnics. Andijan -2001.