

The Effect of Organo-Mineral Fertilizer Application on Cotton Yield and Fiber Quality

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Annotation: The article provides information on the effect of the use of organo-mineral fertilizers on the yield of cotton and fiber quality in the care of cotton, the timing and amount of preparation and application of organo-mineral composts.

Keywords: Cotton, fiber, organo-mineral, fertilizer, compost.

On November 28, 2017, the President of the Republic of Uzbekistan Shavkat Mirziyoyev adopted a resolution "On measures to radically improve the management system of the cotton industry." The document notes that the real state of affairs in the cotton industry, the rapid renewal and modernization of production processes, the introduction of advanced technologies, the existence of systemic problems and shortcomings that hinder the rapid development of the industry as a whole. The decision provides for measures to further improve the production processes in the cotton sector.

One of the main factors of high yields in cotton is the use of new technologies in the care of cotton. First of all, the quality of seeds sown in cotton is high. High-quality seeds account for 40% of agrotechnologies that increase cotton yields. The second step is to take good care of the planted cotton, that is, to eradicate the diseased plants first in the fight against disease. This method is more labor-intensive and less effective, and is used only in cases where there is no other option in the fight against the disease.

The main thing is that the use of organo-mineral fertilizer for the care of cotton wool in cotton

breeding improves the quality of fiber, increasing cotton dressing. For example, local fertilizer for 7 hectares of 59 hectares of the "Abdurahim ota" farmer farm in Namangan district was planted at 14-15 tons, while the number of irrigation was reduced by one time and saved 800-900 m³ of water per hectare.

The number of intercropping operations was reduced by 2 times and an additional yield of 5 quintals per hectare was achieved. At Yulduz farm in Gulistan district, 50% of the annual norm of phosphorus fertilizers and 16% of nitrogen fertilizers are applied to the fields. In winter, when the soil freezes, 6-7 tons of rotten manure is spread. yield.

As a result, production costs were reduced due to mineral fertilizers, and an additional income of 370,000 soums per hectare was obtained. It is clear from these examples that organo-mining increases the productivity of the ore and leads to an increase in income.

Based on the above, it can be said that the collection, storage and efficient use of local fertilizers is of great importance in the production of abundant and high-quality crops. Solid manure is stored near the barn or in piles at the head of the field. In both cases it is advisable to store the solid manure in a pressurized manner.

Proceeding from the above, it can be said that the importance of collecting, storing and effective use of local fertilizers in the cultivation of abundant and high-quality crops is great. Solid gooseberry is stored near the stump or in piles on the head of the field. In either case, it is desirable to keep it in a tightly pressed form.

When the moisture content in the Go is higher than the optimal norm, it is recommended to periodically mix crushed beetroot, plant waste, tree leaves.

On farms, near farms (closed or open) for collecting and storing liquid manure, and at the beginning of the field (at the depth of the coved open), the capacity is collected and stored in manure-intended dung, which is released all winter. Such dung can accommodate 25-40 percent of the manure that comes out of the mulch in winter.

They are permanently connected to a network of hydraulic pipelines that do not freeze in winter. Manure is thrown to the bottom of the pit to prevent freezing across the layer. The capacity of such manholes is 3-4 thousand m³

When local fertilizers are applied to the soil, the agrochemical and agrophysical properties are improved, the absorption properties are increased, and moisture is well retained. Types of local fertilizers include cattle, horse, pig, poultry, sheep manure, silkworm droppings and fungi, tree leaves, remnants of non-forage crops, old wall cuttings, ditches and ditch mud. The main part of local fertilizers is cattle manure.

Manure contains nitrogen (0.4–0.6%), phosphorus (0.2–0.3%), potassium (0.5–0.6%), trace elements (chalk, manganese, cobalt, copper, lead and etc.) and is also a valuable fertilizer because it contains carbon. Manure placed in the soil is broken down by microorganisms, and the carbon in it is oxidized. The resulting carbon dioxide affects the phosphate in the soil, increasing its solubility, so the plant absorbs it much more. The carbon in the manure is again processed by microorganisms into complex compounds that make up the humus.

The more manure is added to the soil, the more carbon is released as a result of decay, making the plant's air-feeding process more comfortable. When 20-30 tons of semi-decomposed manure is applied to the soil, the amount of carbon released per day increases by 100-150 kg per hectare compared to the unfertilized field. This is an important factor in obtaining a rich harvest from crops. In addition to the efficient use of local fertilizers, there are natural

resources that can reduce the shortage of local fertilizers by preparing organo-mineral composts from enriched coal powder, phosphorite and non-traditional agro-ores (bentonite, bentonite clays, glauconites, etc.). In the preparation of Organo-mineral composts, when determining the weight and ratio of organic fertilizers, they are taken separately for each, depending on the amount of average nutrients (NPK) contained in them. When preparing compost from organic fertilizers in the amount of 1-2% compared to the weight of composts, it is better to prepare compost by pouring 15-20 kg of phosphorus into phosphorus fertilizers or 1 ton of organic fertilizers, the nutrients contained in the compost, especially nitrogen loss, are reduced and phosphorus is easily absorbed by the plant.

Such composts, in which phosphorous fertilizers are added, can be reduced by 25-30 percent to the norms of separate phosphorus and potassium fertilizer application to the laid fields. Gong-one of the most effective methods of preparation and storage of soil composting is composting with the help of a bulldozer in trenches near the mulch. The volume of the pit: length 60-80, eni 3-3,5, depth 3,5–4 m. the capacity of ni is around a thousand tons. Dry somon, which is put under the moles, remains of silo mass, goos and moles of moles are removed from the farm and put in a trench as a floor. As the second floor above it, the arc, the ditch, the channel mud or the cut of the old walls, unfertilized soils, plant humus, tree leaves, khazans and other organic remains are thrown away.

Depending on the state of the compost mixture to the third layer can be reduced by 1-2 percent or every 1 ton of the mixture from 15-20 kg of phosphorus fertilizer or 150-200 kg of low-grade resin phosphorites(12-14% R₂O₅). After that, it is possible to fill the packaging in the same order, to prevent the loss of elements and to be of good quality, to spacing with soil in an amount equal to 40 percent of the total amount of manure. As a result of such floor-topping mixtures, when the height of the compost from the surface of the Earth reaches 1,5 meters, it is moistened with the necessary amount of water, and on top of it is poured with soil

of 15-20 cm thickness, and the top is shibbled (with go, the soil is in 1:1 ratio when both are)

This action leads to the acceleration of various processes in the composition of compost, including temperature changes, the development of mesophyll and thermophilic micro organism, the processes of oxidation and formation of humus, and, finally, the destruction of eggs, larvae of all kinds of pests and gels contained in gooseberries. Taking into account the need to fill with manure, it is recommended to lay out several side by side the racks.

Storage of compost in this case takes 5-6 months. For fertilization in the farmer farm, which is planned to collect compost, 0,2 hectare of land is allocated and on top of it 500-600 tons of manure is poured evenly, between them 1 ton of phosphorus fertilizer or 100-200 kg of low-grade red-sand phosphorites (12-14% R2O5) are cast and plowed to a depth of 20-25. Then all this is transferred to the work with the disc borona or re-plowed with a simple plowing plug, which will ensure the mixing of all. In the end, the whole mass is mixed, collected together with the help of a bulldozer and poured with soil with a thickness of 20-25 cm above. If the mixture does not have enough moisture, then water is poured over the prepared bunches, depending on whether it is liquid or necessary. So in a heap it is possible to prepare 1000-1200 tons of compost in 4-5 months. Trench and manure can be used, which is one of the most effective methods of preparing and storing compost on the basis of cattle or poultry manure + tree leaf (hazon) + phosphorus fertilizers. Cattle manure and tree leaves in a ratio of 1: 1, poultry manure and tree leaves in a ratio of 1: 3, poultry, cattle manure and tree leaves in a ratio of 1: 2.5: 2.5 and nitrocalcium phosphate fertilizer (NKFU) in a compost mass of 1.5 % (layer by layer), it is recommended to cover with 15-20 cm thick soil and store for 5-6 months.

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