ENVIRONMENTAL PROBLEMS OF APPLYING CHEMICALS TO COTTON AND OTHER PLANTS.

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Abstract: It is known that agrochemistry is of great importance in the vital activity of living beings based on the increase of agricultural products, quality improvement and production efficiency. The reason is that the violation of agrochemical methods and rules leads to huge negative consequences in agriculture, that is, as a result of improper use of mineral fertilizers, the ecological condition of the environment is damaged, the soil, water, and air are polluted, productivity decreases , agrochemical properties and phytosanitary conditions deteriorate, plant diseases increase, the ecological quality of crops obtained from the ground decreases.

Key words: Cotton, mineral fertilizers, nitrogen nitrate, plants, crop rotation, soil.

Goose consumes as much potassium as it absorbs nitrogen. Therefore, when growing cotton and other crops, if potassium fertilizer is not added to the soil for a long time, the potassium reserves in the ground will decrease. In this regard, the use of potash fertilizers in agriculture is very necessary. This work will be highly effective if it is carried out according to the fertilizer use plan based on agrochemical maps. For example, if large amounts of nitrogen fertilizers are applied to the land planted with cabbage, the exchange of nutrients of cabbage is disturbed, that is, sulfur is formed, and as a result, the quality of cabbage products deteriorates, and phosphorus nutrition of the soil deteriorates. Sodium Chlorine, sulfate compounds in the soil in excess, such soil is unfavorable for the development of plants from an ecological point of view. Therefore, the main chemical elements located in the rhizosphere layer of the soil should be measured in optimal amounts and proportions. Many negative environmental situations occur during the use of mineral fertilizers. That is, many types of mineral

fertilizers are used in the agriculture of Uzbekistan, especially in the cultivation of cotton. But in order to get high results from mineral fertilizers, it is advisable to apply them in time depending on the period of growth and development of corn and other crops, but the amount of fertilizer depends on the soil moisture and giving it to the ground time should be observed. Only then it is possible to saturate the plant with mineral fertilizer and get a higher, larger harvest. If the soil is dry, or the vegetation period of the plant has passed, or if an excessive amount of fertilizer is given, this cannot be a guarantee of a good harvest, on the contrary, the yield will decrease. A lot of chemical substances accumulate in the soil and then pass to the crops (cabbage, onions, cucumbers, melons, watermelons, carrots, etc.), spoiling their quality, creating an environmentally friendly product it is necessary to observe agrotechnical rules, prepare the land for planting crops in autumn and spring, take care of it, take good care of it, and water it on time. Chemical elements have a positive effect on plants and the crop dies. Fertilization by adding mineral fertilizers to the soil after 5 years of fertilization in crop rotation is very effective and improves the bioecological properties of the soil.Depending on their physical condition and ecological characteristics, plants better absorb phosphorus applied before plowing the land or phosphorus given together with nitrogen during the last feeding of cotton (during the flowering period). Nitrogen fertilization should be stopped when cotton and other plants are in full bloom, when cotton seedlings are mature and take up a lot of nitrogen, and during this period the temperature drops significantly it almost stops growing. If 150 kg of nitrogen, 100 kg of phosphorus, and 50-75 kg of potassium per hectare are applied to the gray soil, the average yield of cotton is 37 hours. When the soil was fertilized and alfalfa cotton was planted, the productivity increased up to 43 s. The use of mineral fertilizers, including nitrogen fertilizers, in optimal doses during the growth, development, phytomass formation and ripening of crops is not without benefits, their excess is considered harmful. Since nitrogen fertilizers are one of the nutrients for plants, they are the main core and basis of agricultural chemistry. Many scientific studies show that 50% of the nitrogen sent to the ground is absorbed by plants, and the remaining 50% rises into the atmosphere and washes into water bodies. A lot of energy is used in the production of nitrogen fertilizers. That is, 35-42% of the total energy used in agriculture goes to the production of nitrogen fertilizers. It occurs in the process of nitrification resulting from the mineralization of manure (dung, humus, som on). In addition, ammonium and amide nitrogens are converted into nitrates under the influence of nitrifying microorganisms. Therefore, when nitrogen fertilizers are applied to the ground, nitrates accumulate in the soil. However, since they are in a mobile form, they are quickly washed out from the roots. Nitrates are the basis of plant nutrition.

Conclusion:

Cotton absorbs only 50% of the nitrogen contained in the fertilizer applied to the soil. 240 kg of nitrogen fertilizer is needed to get an additional 20 s of crop from the land. But the use of so much nitrogen must be considered from an ecological point of view. That is, is it necessary to give so much nitrogen fertilizer to the ground (240 kg)? If it is necessary to use this fertilizer, it is necessary to determine the period of its use or to use another fertilizer that suppresses nitrogen, as well as to ensure the growth and development of the plant, as well as high yield. Soil should be extracted and protected from chemical contamination. Phosphorous fertilizers are another fertilizer widely used in agriculture. They are in the form of superphosphate, two double superphosphates and complex fertilizers: ammophos, diammophos, nitroammophoska, karboammophoska, and are quickly absorbed by plants. Phosphorus is one of the biogenic elements. Although its requirement for the organism is 10 times less than nitrogen, it plays an important role in plant reproduction, mass formation and energy metabolism.

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