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FORMATION OF COTTON CROP ELEMENTS

Rahimova Gulnoza Yomgirovna
Teacher of the "General.Sciences" department of the Asian International University, Bukhara, Uzbekistan

Abstract: In agriculture, it has been studied that the use of non-traditional agro-ores as additional nutrients gives good results in maintaining and increasing soil fertility. It is known that the reduction of organic substances in the soil, especially humus, sharply reduces the effectiveness of synthetic fertilizers used to obtain high yields from crops. In mitigating the shortage of mineral and local fertilizers, non-traditional agro-ores glauconite, phosphorite and bentonite slurries are rich in many micro- and macro-elements.

Key words: Cotton , Agrobiology, bentonite, soil fertilizers.

The difference between the variants was analyzed according to the results of the phenological observation and biometric measurements of cotton growth, which were carried out on the first day of each month. In all variants of the experimental field, the same agrotechnical measures were used, and the norms and terms of fertilization and irrigation were also determined. However, the cotton fields treated with bentonite clay powder for foliar feeding were significantly different from the control even when the seeds were sown in shell. In addition, it should be noted that this year, the growth and development of cotton in our country, the extremely high temperature in July, caused a lot of difficulties in the growth and development of cotton.

When observations were made on June 1, July 1, and August 1 in the experimental fields planted with the Bukhara-102 variety of cotton, the height of the cotton in the control plots, i.e., in the version planted without seeds, was 19.1, 65.7, and 102.6 cm, respectively. 20.8, 69.8, 115.3 cm in the seed beds covered with bentonite clay, 21.8, 72.8, 120.5 cm in the options fed with bentonite suspension from the leaf together with seed coating, and 20 in the options fed only with bentonite suspension 7, 71.5, 113.7, 120.5 cm.

It was found that the number of pine leaves per plant was 1.7 more in the options fed with bentonite suspension from the leaves in combination with shelling of the seed compared to the control, and the crop branches also gave good indicators in this option, that is, if it increased by 2 in July 1, the same indicator in the following month was 4. It was observed that it increased to 3, and the crop elements increased by 2.9 and 3.7 in these 2 months (Table 4.3).

In the experimental fields where Bukhoro-6 and Bukhoro-8 varieties were planted, the application of the same option 3, coating the seed with bentonite clay powder before planting and using bentonite and urea suspension during foliar feeding had a positive effect on the height of cotton, the formation of crop branches and crop elements (Table 4.3).

Cotton yield

The quality of the seed, the time and amount of seed planting, the agrotechnical measures carried out during the growing season, along with indicators such as soil reclamation and fertility, have a direct effect on the cotton yield.

Significant changes in cotton yield were observed in the methods used in our experiments: shelling with bentonite clay powder and mixing bentonite clay powder with mineral fertilizer suspension during foliar feeding.

In the Bukhoro-102 variety, the yield index was 38 t/ha in the control variant, 41.9 in the variant with seeds sown in husks, 45.2 in the variant with seeds sown in husks and foliar feeding with bentonite+urea suspension 3 times, and only with bentonite+urea suspension 3 times per leaf. 42.5 t/ha cotton yield was obtained in the fed version. This, in turn, indicates that 3.9, 7.2 and 4.5 t/ha or 10.2, 18.9 and 11.8% additional yield was obtained, respectively.

Similarly, the yield index of Bukhara-6 variety was 2.8, 5.7 and 3.7t/ha or 9.2, 18.7 and 12.2%, respectively, and Bukhara-8 variety was 2.8, 4, 5 and 3.1 t/ha or 10.0, 16.6 and 11.4 % additional yield was achieved (Table 4.4).

In conclusion, it can be said that the above-mentioned properties of bentonite clay gave positive results in cotton yield in the experiments. It is possible to achieve high yield by using bentonite clays even with 3 irrigations during the season instead of 4 times, i.e. saving up to 700-1000 m3 of irrigation water.

References

1. Rahimova, G. (2023). MAKTABLARDA BIOLOGIYA FANINI O'QITISHDA ZAMONAVIY INTERFAOL METODLARDAN FOYDALANISH. B CENTRAL ASIAN JOURNAL OF EDUCATION AND INNOVATION (T. 2, Выпуск 10, сс. 103–109). Zenodo.
2. Yomgirovna, R. G. (2023). AGROBIOLOGICAL PROPERTIES OF BENTONITE IN AGRICULTURE. TA'LIM VA RIVOJLANISH TAHLILI ONLAYN ILMIY JURNALI, 3(9), 126-130.
3. Rakhimovna, T. D., & Yomgirovna, R. G. (2023). AGROBIOLOGICAL PROPERTIES OF BENTONITE IN AGRICULTURE. Conferencea, 9-14.
4. Yomgirovna, R. G. (2023). AGROBIOLOGICAL PROPERTIES OF BENTONITE IN AGRICULTURE. Gospodarka i Innowacje. 40, 179-183.
5. Yomgirovna, R. G. (2023). AGROBIOLOGICAL PROPERTIES OF BENTONITE IN AGRICULTURE. TA'LIM VA RIVOJLANISH TAHLILI ONLAYN ILMIY JURNALI, 3(9), 126-130.
6. Rahimova, G. (2023). QISHLOQ XO'JALIGIDA BENTONITDAN FOYDALANISHNING ILMIY JIHATLARI VA SAMARADORLIGI. B CENTRAL ASIAN JOURNAL OF EDUCATION AND INNOVATION (T. 2, Выпуск 11, сс. 189–196). Zenodo.
7. Yomgirovna, R. G. (2023). SCIENTIFIC ASPECTS AND EFFICACY OF BENTONITE USE IN AGRICULTURE. EUROPEAN JOURNAL OF MODERN MEDICINE AND PRACTICE, 3(11), 116-120.
8. Rahimova, G. (2023). SHO'RLANGAN TUPROQLAR SHAROITIDA G'O'ZANING MORFOLOGIK BELGILARI VA RIVOJLANISHIGA BENTONITNING TA'SIRI. B CENTRAL ASIAN JOURNAL OF EDUCATION AND INNOVATION (T. 2, Выпуск 12, сс. 141–145). Zenodo.

9. Ergasheva, G. (2023). METHODS TO PREVENT SIDE EFFECTS OF DIABETES MELLITUS IN SICK PATIENTS WITH TYPE 2 DIABETES. International Bulletin of Medical Sciences and Clinical Research, 3(10), 104-108.
10. Ostonova, G. (2023). TURLI XIL STRESS OMILLARDAN GARMSEL OMILINING G ‘O ‘ZA BARG SATHIGA TA’SIRI. Центральноазиатский журнал образования и инноваций, 2(11 Part 2), 107-111.
11. Rashidovna, O. G. (2023). PHYSIOLOGY OF THE ENDOCRINE GLANDS. EUROPEAN JOURNAL OF MODERN MEDICINE AND PRACTICE, 3(11), 1-6.