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 POLLUTION CONTROL AND PESTICIDES
 

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**Abstract:** When making CFF nitrogen consumption of soil resources in the year of its operation increases in the second year (aftereffects) decreases unproductive nitrogen losses from CFF markedly lower than urea. CFF raises productivity *Artemisia leucodes* Schrenk. In field experiments, conducted in the irrigated typical gray soils and debris, the harvest was bigger by 10-30% compared to the control. The research results point to a definite advantage of using a slow acting carbamide-formaldehyde fertilizers (CFF) than urea and ammonium nitrate in reducing environmental pollution harmful to the body remains of the fat

It was found that the use of slow acting . Urea-formaldehyde fertilizer is particularly important in conditions of saline soils with shallow groundwater where significant nitrogen losses occur as a result of leaching of nitrates into the groundwater.

It was revealed that a higher content of nitrates in the soil when making nitrogen fertilizer as ammonium nitrate and urea lead to a significant loss of battery sizes that reach considerable values. As a result, there are a number of issues surrounding pollution as the most dangerous are increasingly finding the nitrates in the soil. It should be noted that not only accumulate nitrate in the soil - soil, ground water, but higher than allowable standards accumulate in food and feed, thus enters the body of animals and humans

**Key words:** slow release fertilizer, carbamideformaldehyde fertilizers (CFI), *Artemisia leucodes* Schrenk - wormwood whitish, denitrification, ureaformaldehyde fertilizer (IFIs), Standard tuki, yield, budization.

### Introduction

Numerous researchers have recognized that the leading factor in increasing the productivity of the cotton plant is the use of nitrogen fertilizers.[1,2,3,4]

The aim of our research was to study the influence of CFU on the growth, fruiting and yield of the *Artemisia leucodes* Schrenk plant and its quality in the

conditions of irrigated typical unpopulated soils of the Tashkent and gravelly serozems of the Jizzakh viloyats.[5,6,7,8]

In this regard, we set out to study the use of *Artemisia leucodes* Schrenk urea nitrogen and urea-formaldehyde fertilizers (CFCs), its conversion in the soil and their significance in reducing environmental pollution.[9,10,11,12]

**Methods.** The experiments were conducted at the agricultural experimental station of the Tashkent State Agrarian University and in the Farish district of the Jizzakh region.

The repetition of all the above types of experiments is a four-fold plot area of 600 m<sup>2</sup> on gravelly serozem and 400 m<sup>2</sup> on typical unsalted serozem. Layout of *Artemisia leucodes* Schrenk 60x25x1.

**Results.** The results of the studies showed that under typical serozem conditions, when applying various forms of nitrogen fertilizers, the amount of nitrogen used by *Artemisia leucodes* Schrenk was 28-41 % (in % relative to the amount applied to the soil). When using urea, the value of this indicator was 40.5 %, and when using CFCs-28-31 %. In the second year of experiments, the amount of urea nitrogen used by the plant was 9 %, and when using CFCs or CFCs with urea - 20-22 %. For two years, the plant's use of urea nitrogen was 49 %, and the use of CFCs and CFCs together with urea was 48.0 - 53.3 %. Therefore, the amount of nitrogen use, both urea and CFCs, by the plant was almost the same. It should be noted that when applying CFCs, the content of residual nitrogen in the soil was 2 times higher than when applying urea. In the second year of the experiments, the amount of CFU nitrogen used was greater than when applying urea.

In general, the nitrogen losses during the introduction of CFCs into the soil were less than when using urea.

### Conclusions.

1. It is established that CFU contributes to the preservation of ammonium nitrogen in the soil for a longer period, delays its nitrification, thereby reducing leaching, nitrates and osmotic pressure of the soil solution, which is reflected in improving the nitrogen nutrition of plants, accelerating growth processes, fruiting and increasing yield (biomass) relative to standard tuks (urea). The use of *Artemisia leucodes* Schrenk nitrogen from CFCs in the first year is less than from urea, and the reverse pattern is observed in the second year. Over two years, the amount of CFU nitrogen use is greater (by 11.8%) than in the control (47.0%>), while the amount of unproductive nitrogen losses from CFU decreases by 15.8% in relation to urea. It is important that when using CFCs for plants, their consumption of nitrogen from soil sources is reduced and thus the natural fertility of the soil is preserved.

2. When using CFCs together with urea (70 % in the form of CFCs before sowing, and 30 % in the form of urea in the budding phase), the use of nitrogen

fertilizers by the Polyana whitish plant was greater than when they were applied to the soil separately.

3. Urea-formaldehyde nitrogen fertilizers increase the efficiency of nitrogen on plants and reduce unproductive nitrogen losses from the soil.

4. The results of our research have established that CFU increases the yield of plants. In field experiments conducted on unsalted irrigated typical serozem and meadow-serozem soil. There is a tendency for CFCs to be more effective on saline light than on non-saline typical serozem. All this points to the prospects of using slow-acting urea-formaldehyde fertilizers on *Artemisia leucodes* Schrenk.

5. The use of urea-formaldehyde fertilizers under *Artemisia leucodes* Schrenk helps to reduce the pollution of the environment with nitrates on typical unsalted serozem, gravelly serozem, especially in meadow-serozem soils, than the introduction of ammonia-nitrate forms of nitrogen.

6. Due to low leaching into ground water and low gas losses, the use of CFCs on gravelly serozem, compared to typical serozem, is a more effective fertilizer than urea.

7. Thus, the introduction of slow-acting nitrogen fertilizers (CFCs) in relation to urea reduces gaseous losses, as well as losses resulting from the leaching of nitrates into ground water, which is important in the conditions of hydromorphic, especially gravelly gray-earth soils in reducing environmental pollution with nitrates.

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