

CYNARA SCOLYMUS L. INGESTION OF PRICKLY NITROGEN OF VARIOUS FORMS OF NITROGEN FERTILIZERS AND THEIR IMPORTANCE IN OBTAINING ENVIRONMENTALLY FRIENDLY PRODUCTS

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Use of nitrogen and different forms of nitrogenetic fertilizers by medicine crops and their importance at decreasing the pollution of environment. The results of the research point out to definite advantage of using the slow-forking Corbamide-formaldegide fertilizer (CFF) than the urea and ammonium nitrate at decreasing the pollution of environment by remains of artificial manure harmful for organism. It is established, that the use of slow-forcing CFF is especially important in the conditions of salty soils with close laying of ground waters, where the considerable losses of nitrogen in the result of nitrates alkaliness into the ground waters trace place. Revealed, that the great content of nitrates in the soil at carrying in the nitrogenic fertilizers like ammonium nitrate and urea causes the considerable losses of given element of feeding, which parameters have the great extent. As a result the number of problems of enviroment's pollution take place, as the most danger is the great accumulation of nitrates in the soil. It is to mark, that nitrates accumulate not only in the soil – grounds, ground waters, but in feed and food products higher than permissible norm and hence they get into organism of human and animals.

Key words: nitrogenetic fertilizers, urea formaldegide fertilizers, carbomide-formaldegide fertilizers (CFF), nitrates, ammides, denitrification, humus, vegetation practices, urea, ammonium nitrate.

Introduction. One of methods for increasing coefficient of useful application of nitrogenetic fertilizers on plants and decreasing of its loss reasons, is regarded as using of slow-forcing nitrogenetic fertilizers. In accordance with this, we have set an aim to study artichoke absorbtion of urea nitrogen and carbomide formaldegide fertilizers (CFF), its changes in soil, its importance on reducing of environmental pollution and on getting ecologically pure products.

Materials and methods of the research: studied efficiency of using urea and CFF in typical unsalty soil of Sirdaryo region in the Republic of Uzbekistan; conducted vegetation and field practices; these practices repetition was of 4 stages; the practice area was of 600 m² medium-salty light soil and 400 m² typical unsalty soil; schema of artichoke field was 90X45X1 and 70X40X1. For vegetation practices soil was taken from practice field.

Results of the research and their discussion. As a result of these nitrates cases, especially in salty soil with close laying of ground water occurs more CFF while using urea. Because of high content of ammonium nitrogen in soil while applying CFF, remained nitrogen (for plants not applied yet) decreases relatively to urea and at the end useful action coefficient of nitrogen increases in plant and decreases loss. Total quantity of remained unlimited nitrogen, coming out of nitrates and ammonium, is considerably higher than CFF while using urea for plants under study. Considering this data it is assumed that loss of nitrogen in urea because of

denitrification and changes occurs more than in CFF while using urea for plants under study. This indicates proper particular way for using CFF than urea for reducing of environmental pollution by remains of artificial manure which is harmful for organisms. Conducted study shows that content of ammonium nitrogen and nitrate nitrogen is higher during the period of reproductive development (butanization-flowering-seed formation) of plant under study, then it decreases revealing absorption of nitrogen by plant on one hand and on the other hand unrelative loss of it in mentioned development phases of above-mentioned plants.

Results of research carried out by us affirm that content of nitrates in soil during all its definite period decreases considerably while using CFF in soil than urea. Subsequently, using of CFF is particularly important in salty soil conditions with close laying of ground water where it is possible to expect considerable loss of nitrogen as a result of changing of nitrates in ground water. Besides, high content of nitrates in soil on using standard manure, causes considerable loss of nitrogen of high extent. In the result of this environmental pollution and other problems may occur. That's why, nitrates accumulate not only in soil, ground and ground water, but also in feed and food products higher than permissible norm and hence they get into human and animal organisms. Accordingly, using of CFF to plants under study in salty light soil conditions with close laying of ground water is particularly acceptable to ecological relations than standard matters.

Conclusions. Using of CFF for *Cynara scolymus* allows more reduction in environmental pollution by nitrates in typical unsalty soil, particularly in salty light soil with close laying of ground water than using of ammonium nitrogen in the form of nitrogen.