

## **PROBLEMS OF ENVIRONMENTALLY BALANCED AGRICULTURAL PRODUCTION**

***ZAİKA E.V., STUDENT\*,  
KHARKOV PETRO VASILENKO STATE TECHNICAL  
UNIVERSITY OF AGRICULTURE***

As you know, land, soil fertility and favorable climatic conditions Ukraine as a whole and its individual regions causing high potential agricultural production, but excessive cultivation and tillage of agricultural land has breached scientifically proven correlation between arable land and natural ecological community. This has led to repeated increase in energy consumption in agricultural production, development of active erosion and disturbance of ecological balance. The most alarming phenomena observed in the soil surface, which significantly degraded and continues to deteriorate, resulting in the loss of large areas of productive land in Ukraine and in the world [1].

Research of domestic and foreign experts proved that during intensive use of agricultural land storage place changes their natural properties and transformations occurring internal communications and processes in soils, leading to changes in fertility, which now depends not only on the properties derived from natural soil formation processes, but on re-acquired as a result of economic use. Therefore the environmental aspects of optimization of agricultural land use must take into account both natural and acquired properties and adapted based on the use of processes and phenomena occurring in soils.

This situation is an urgent need for the development of domestic science, new approaches to the agrarian nature and comprehensive study of the priorities that would define new paths to sustainable land use, namely the problem of territorial environmental stabilization of agricultural land, protection of soil degradation processes and increase their performance [2-3]. An important aspect of creating an effective mechanism for rational land use is ecologically adaptive land-use organization, which aims to adapt the agricultural production to natural and acquired land properties. Adaptive land allows to protecting soil and resource orientation process of improving

---

\* *Supervisor: Vasilev A.I., Doctor of Sciences (Economics), professor*

fertility, improves the economic efficiency of agricultural production.

We believe that the negative trend of declining soil humus in Ukraine (annual decrease by 0.5-0.6 t/ha), widespread cessation of work for land protection, above all, be resolved through the development of an economically viable purposeful action program (concept) which provides for environmental land use optimization and normalization of the natural environment.

Thus, complex degradation processes in agriculture, causing the need to develop basic conceptual directions of sustainable land use, primarily aimed at maintaining soil fertility, protect them from erosion, efficient use of chemicals and productive farming [4].

We believe that the ecological development of Ukraine's agriculture and its sphere of land relations is the creation of conditions for social and economic progress of agricultural production, based on ecologically optimal constraints technogenesis and focused on conservation and restoration of land and resources, as well as in achieving the social and ecological - economic balance of national economic development and natural resource areas.

Another task of greening in the system of state regulation of agricultural land is increasing soil fertility, which is a set of problems: financial, technological, scientific, reclamation, chemicals, agricultural technology and, finally, of farming in general.

Therefore, only at the state level can be developed and executed program of improving soil fertility and improving land use by the model of state support efficient and environmentally safe agricultural land in Ukraine [5].

Addressing the sustainable development of local agricultural purposes will be through the development and implementation of the State (regional) Concept of sustainable agricultural landscapes which should provide development activities in the following areas:

- withdrawal from cultivation of arable land unproductive;
- implementation of land conservation;
- using irrigated land;
- replenish soil organic matter;
- application of fertilizers;
- liming acid soils;

- gypsum soils solontsevych;
- biological agriculture and obtaining environmentally friendly products;
- agrochemical certification of agricultural land;
- land registry and quality of soil;
- Quality Management Information System Ground.

In the area of structural policies rational land use, in our view, it is appropriate to provide:

- «withdrawal» of monocultures, reducing crop acreage of sunflower;
- the introduction of crop rotation, improving soil - grasses;
- development of resource saving technologies on the basis of ecological production;
- carrying out reclamation work;
- using organic fertilizers.

The implementation in practice of agricultural household of environmental and economic innovation, based on the principles of improving the quality of soil and resource wealth including land and building in general, is the only possible condition for overcoming the crisis of domestic agriculture and guarantors of further positive economic dynamics.

### **Bibliography.**

1. Горлачук В.В. Земельний менеджмент: [Навчальний посібник] / В.В. Горлачук, І.М. Песчанська, В.А. Скороходов. – К. : ВД «Професіонал», 2006. – 192 с.

2. Заїка С.О. Аналіз ефективності використання земельних ресурсів / С.О. Заїка, Л.С. Харчевнікова. – Харків : Вид-во «Міськдарук», 2014. – 24 с.

3. Інноваційні ресурсозберігаючі технології: ефективність в умовах різного фінансового стану агроформувань / За ред. професора Г.Є. Мазнева. – Харків : Вид-во «Майдан», 2015. – 592 с.

4. Панас Р.М. Раціональне використання та охорона земель: [навчальний посібник] / Р.М. Панас. – Львів : Новий Світ, 2008. – 352 с.

5. Третяк А.М. Земельні ресурси України та їх використання / А.М. Третяк, Д.І. Бамбідра. – К. : ТОВ «ЦЗРУ», 2003. – 143 с.