

# Ethical Aspects of Agronomist Activities\*

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**Abstract**—The question of the relationship between science and morality today is particular relevance. Modern science, as a result of the intensification of the globalization process and the rapid development of technologies affecting human existence, can no longer remain "value-neutral". Changes in science makes humanity increasingly think about its existence. And in this regard, it no longer only allows, but also requires the scientific community to rethink and include new, modern moral imperatives in the scientific work of scientists. The problem of not only morality, but also social responsibility of scientists for the results of their scientific discoveries is being actualized. Awareness of the real danger of an ecological catastrophe stimulates the search for new values and ethical regulators of their activities. The role and importance of respecting the ecological imperative is growing, since following the scientific community to this imperative will help not only to preserve the environment, but also to harmonize relations in the "human-nature" system. For the author, the disclosure of this issue is possible in the profession of agronomist. Compliance with ethical norms and principles, including the co-evolutionary imperative, set the conditions for the creation and development of a professional ethical code in the field of agronomy, the introduction of new standards and behavioral patterns of scientists' agronomists in the modern world.

**Keywords**—*ethics of science; ethos of science; ecological imperative; professional ethics of the agronomist; ethical code*

## I. INTRODUCTION

Science cannot exist without morality; it always relies on its activity. It is science determines the boundaries and moral guidelines of human knowledge, improving the criteria for his moral choice. Therefore, it can be argued that morality is partly regulated and determined by modern science. In its activities, science produces not only product-result (including the form of knowledge for society), but also produces certain ethical standards for all of humanity as a whole. Science does not obey to category of morality, its main goal - is service and knowledge of objective truth. Thus, A. Einstein considered the search of truth and harmony to be the main thing in science: "Human strives in some adequate way to create a simple and clear picture of the world in himself" [1]. However, it cannot be argued that modern

science is just as impartial, because it is created by human, and the internal interests of the individual may not always coincide with the moral imperatives of the scientist.

## II. SCIENCE ETHICS

As it is known, the main issue of science ethics is to search for an equal balance of scientific knowledge and value thinking. In the activities of the scientist, along with the objectives of scientific research, special attention should be paid to the means used to achieve the results of knowledge.<sup>1</sup> That is, the moral imperative "the goal does not justify the means" should be considered by the scientist in his activities, and also be aware that he bears professional responsibility for both the goals and the means and for the social consequences of his discoveries. Therefore, science, like any other social institution, needs ethical control by society. This fact actualizes the problem of moral evaluation of science, the formation of a system of its ethical norms and principles, and also calls for the realization of the scientist's responsibility for his scientific activities, the results of scientific research, and the consequences of their use. These and many other questions are included in the scientific field of such discipline as the science ethics.

Under the ethics of science, we will understand the area of philosophical reflection on the moral aspects of scientific activity, including relationships within both the scientific community and the relationship between science and the scientific community with society as a whole [2]. And in this regard, in the science ethics there are two principles: external and internal. The first is responsible for the study of ethical problems arising from the interaction of society and science, the second is the implementation of professional responsibility within the scientific community. The problem of the responsibility of scientists is closely related to the issues of individual freedom and moral choice. Therefore, the specificity of moral responsibility lies in the fact that it characterizes the attitude of the individual to society, to social and professional group from the point of view of the implementation of certain specific moral requirements by it [3]. Thus, the ethics of science is a joint search for rational decisions in which both scientists and the public take part.

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<sup>1</sup> See the thesis on the "value neutrality of science" by D. Hume.

Any scientific activity is based on values (human intelligence, cognitive activity, skills, and abilities) and has certain moral norms (scientific ethos) [4]. These norms are formed in the scientific community and are divided into two groups: general and specific. General norms carry general nature, and they are associated with the activities of a scientist, among which, for example, honesty, justice, decency, and good faith. The specific requirements of scientific ethics are responsible for the professional requirements of the scientist [5]. At present, the basic norms of the professional ethics of a scientist are developed and which can be divided into three groups. The first group includes universal moral norms adapted to the peculiarities of scientific activities (a ban on plagiarism, arbitrary distortion of the scientific research results, the objectivity of the researcher, including blind faith in authorities, as well as adherence to academic ethics). The second group includes ethical norms that serve to assert and protect specific values characteristic of science (selfless search and upholding the truth). The third group includes moral rules that relate to the relationship between science and the scientist with society (the problem of the freedom of scientific search and the social responsibility of the scientist) [6].

### III. THE PRINCIPLE OF CO-EVOLUTION IN SCIENCE

Today, modern science is entering a new stage in its development, called greening stage, where the values of interaction (that is, the provision of co-evolutionary development) of human and nature become decisive for society [7]. The principles of environmental safety form the basis for creating a national concept of environmental safety. They serve as a legal indicator of the legal social nature of the state, the effectiveness of all activities to ensure environmental management and environmental protection, protection of environmental rights and legitimate human interests. The principles of environmental safety should unequivocally be guided not only by scientists, but also by all participants in public environmental relations: the state, institutions, and citizens.

In the beginning of the 20th century, scientists V.I. Vernadsky, E. Leroy, P. Teyar de Chardin came up with the idea of the noosphere, that is, the biosphere, which appeared as a result of the transformation of human thought and labor into a new qualitative state, in which reasonable human activity becomes the determining factor in the dynamics of society and nature [5]<sup>p.35</sup>. Today, this idea has its continuation in the works of such scientists as A. Ursul, A. Yashin, B. Moiseev, D. Becker, who talk about noospherogenesis, that is, the continuous co-development of civilization and the Earth's biosphere [9], [10], [11], [12], [13], [14].

Academician N. Moiseev, believed that co-evolutionary development is a strategy for the harmonious and coherent development of nature, society, culture and consciousness of humanity. He says that it is aimed at preserving itself (human) as a species and is possible to offset the interaction with nature and the entire civilization. A human should take care not only of his environment, but also think and create favorable conditions for the future generation. That is why

modern society needs to find and develop new mechanisms and ways to implement such coexistence. According to the researcher Moiseev, only a rational society will be able to implement this strategy, since the laws governing its behavior and human activities which do not contradict the laws of the development of nature. Human will be able to find a compromise between society and nature, by a condition that he observes in his activities a coevolutionary (ecological) imperative. [14].

The co-evolutionary imperative should be understood as a set of regulated rules and norms of behavior (activity) of a person in the biosphere. That is, the observance of this imperative lies in the use and application of such technologies that do not destroy and "do not overstep" the border permitted by nature to human.

The observance of the ecological imperative becomes the basis for the formation of a new morality and ethics, the elaboration of a person's sociocultural behavior, the use of new mechanisms in his activity, a rethinking of values and norms. In accordance with this imperative, a person is required to maintain, preserve and take care of the environment.

### IV. THE ETHICS OF THE SCIENTIST — AGRONOMIST

Observance of this principle is necessary in every professional group, but especially in the work of scientists — agronomists, because their main activity is aimed at interacting with nature and society. Agronomy — is a part of applied science, whose task is to apply the results of the basic sciences to solve not only cognitive, but also social and practical problems. Thus, professional ethics of the agronomist are particular interest to us. The ethics of the agronomist can be considered collective, since the mutual influence of the individual and his professional activity includes several generalized psychological characteristics of different types of personality in accordance with the classification of types of professional activity according to E. Klimov: human — nature, human — technology and human — human [15]. For professional work, a scientist — agronomist should observe the ethical standards of all three systems.

In the profession of agronomist there is no regulated professional code, but we can try to identify the main ethical areas of its activity. So, the professional ethics of the agronomist - is a set of ethical standards and moral principles of behavior in the field of agriculture in the performance of their professional duties. Ethical principles are designed to consolidate the general guidelines of the profession, ensuring the integrity and viability of the activity as a system, thereby expressing its highest values. Therefore, the professional code of the scientist — agronomist should contain the rules, norms of behavior and mechanisms for the implementation of his professional duty. The creation of the Code will be aimed at maintaining and protecting the reputation of the agronomist profession, regulating the quality of his work, determining the motivation to perform his professional duties. Relationships within the scientific community should be built on the basis of common ministry for the benefit of

society. The free exchange of ideas among professionals, the promotion of vocational education, and the improvement of professional level will contribute to the development of science in the field of agronomy, positive interaction with other related professions and society as a whole. The agronomist must systematically improve his educational level, and monitor the emergence of new information or developments in such areas as environmental protection and the application of new technologies. Cognition and compliance of the Code will be one of the criteria for assessing the quality of his professional activities and behavior.

The professional code of the agronomist should contain the principles governing the relationship of the individual in the system “human-nature”, “human-human” and “human-technology”.

Interaction in the "human-human" system involves the cooperation of a scientist-agronomist with the society through their activities (the final work of the agronomist is the products of citizens' consumption). Professional qualifications, creative thinking, and honesty are the guarantee for successful work of an agronomist. His moral and ethical principles must conform to social, economic and environmental conditions. The agronomist should direct all his knowledge and skills to the search of solutions that meet the interests of society. In his professional activities, the agronomist also encounters technical equipment, which determines his interaction in the “human-technology” system.

Interaction of an agronomist in the “human-nature” system: the requirements for a person must be observed in the process of interaction with and within of nature (that is, the observance of the co-evolutionary imperative); it is important to preserve “the values of nature”, “the rights of nature”, “the good of nature”, “human obligations to nature” and so on. Therefore, it is possible to highlight the following ethical aspects in the agronomist activities:

- formation of feelings of love, careful, humane attitude and compassion for nature
- all actions must proceed from environmental considerations and for the sake of nature itself
- to bear social and environmental responsibility, considering the needs of society and the state of the environment, trying to minimize damage to ecosystems and human ecology
- use in his activities such technologies that are consistent with the principles of environmental management
- in his activities to introduce and use environmentally friendly methods of production and consumption of resources that guarantee the preservation of nature
- comply with the norms and rules for ensuring human security and environmental protection
- professionalism, including improvement of his profession, improvement of his educational level, promotion of the profession development.

## V. CONCLUSION

Thus, the creation of a professional code of the agronomist and observance of his norms and principles is aimed on improving professional aptitude, on avoiding professional deformation of the individual, on preservation of his honor and serve with dignity for the good of society and the state.

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