

# WORKING WITH DIGITAL TECHNOLOGIES IN THE PREPARATION OF COMPETENT PERSONNEL IN THE SYSTEM OF AGRICULTURAL HIGHER EDUCATION AS A PEDAGOGICAL PROBLEM

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**Abstract.** *This article talks about training personnel with modern knowledge on the implementation of digital agricultural technologies, which are priority areas for the further development of agricultural education and science in higher educational institutions.*

**Keywords:** *social environment, factors of targeted socialization, personality, students, socially developing state.*

After the independence of our country, health and development of the spiritual life of the society, paying great attention to the human factor was put on the agenda as the main task. This is a manifestation of a rational approach to solving the tasks facing the society. In this regard, in the present era, when the processes of globalization are expanding and deepening, the President of Uzbekistan Shavkat Mirziyoyev, in his speech at the 72nd session of the United Nations General Assembly on September 19, 2017, said that more than 2 billion representatives of the young generation around the world have an important place in the development of humanity and the opinion that the youth factor requires special attention is extremely important. The president's conclusion at this conference was that "the future of our planet and the well-being of our children depend on how our children grow up to be human beings... In this regard, the most important task is to form and educate the minds of people, first of all, young people on the basis of enlightenment." and it is not for nothing that he attracted the attention of representatives of all UN member countries.

Indeed, thanks to independence, our nation became the owner of its destiny, the creator of its history, the owner of its own national culture. The desire for national self-realization increased. In this process, it is very important to pay special attention to educational values, to reveal their importance in the development of the future specialist. The following educational values are important in the development of the personality of a future specialist:

- to enjoy the benefits of our rich spirituality;
- understanding of the depth of the scientific and cultural heritage of our great ancestors who made a great contribution to the treasure of world culture;
- that young people look at their past, national and religious traditions with respect, and are brought up in the spirit of preserving them;
- to be proud of the value and prestige of one's nation in front of other nations;
- a sense of responsibility in protecting the interests of the nation and confidence in the future.

According to the decrees and decisions of the head of our state, starting from 2020, in order to introduce market mechanisms in agriculture, complete digitization, cancel the state order for the cultivation of cotton and grain in order to increase the interests of farmers and peasants, and gradually introduce a procurement system based on market principles. phase transition was determined. In this regard, the decision of the President of the Republic of Uzbekistan signed on January 28, 2020 "On measures to implement the tasks set in the strategy for the development of agriculture of the Republic of Uzbekistan for 2020-2030 in 2020" is a program.

The Ministry of Agriculture pays great attention to the implementation of innovative projects in the field. On the basis of ongoing research and cooperation at various levels, fundamental changes are expected to occur in the network. First of all, the project of the concept of introduction of "Smart agriculture" will be developed in the step-by-step implementation of digitization using satellite images and technical means. If the project is put into practice, the possibility of exporting agricultural products will be expanded, and 50 percent of the monitoring system "from production to the counter" will be implemented. Labor productivity has increased by 30 percent, and the cotton harvest is harvested entirely by machine. Creation of stress-resistant, high-yielding, transport-adapted crop varieties rich in bioactive substances is 100% guaranteed.

The use of satellite data and remote sensing technologies will also be tested for quick and accurate assessment of the condition of agricultural lands and the crops grown on them. With this, it is possible to identify all types of agricultural crops and assess areas in the republic. Satellite data will serve to form an information-analytical base on "precision farming" in the republic, and it will be possible for farms to use the mobile application.

Another important direction - the number of objects to be designed according to the "Smart Greenhouse" technology will be increased to 500. In animal husbandry, an automated system of production of products will be established. As a result, production costs in the industry will be reduced by 15 percent.

Transition to digital agriculture in our country is being carried out in cooperation with the Food and Agriculture Organization (FAO) and the World Bank. Now, the project of electronic monitoring of arable lands, pastures and forest areas, the technical and economic basis and the technical assignment on clearly defining the phases and directions of the transition to the digitization of agriculture will be developed.

Within the framework of the concept approved by the decree of the President of June 17, 2019, a special online platform prototype was created for the purpose of monitoring land used in agriculture through the geo-information system. A single program will be developed to ensure the integration of information systems of all ministries and agencies belonging to the agro-industry complex. At the moment, work is being carried out on the project of the state program "Smart Agriculture".

In advanced agricultural systems, various "smart technologies" (smart-sensors) are installed based on crop and environmental conditions. These include, for example, early detection of pests and diseases, climate control - devices that measure temperature, humidity, carbon dioxide levels, nutrient supply and irrigation devices. Their use guarantees an increase in productivity by at least 30 percent. In addition, improved systems will be introduced in the production and marketing chains of agricultural products, and ultimately, the possibility of collecting large amounts of electronic data will be created. As a result of their storage and analysis, it is possible to effectively use water, land and other limited resources, ensure the quality and safety of food.

The convenience of the electronic system is that even after the harvest, its activities continue in the areas of product processing, packaging, cleaning, sorting, delivery and creation of other value chains. In short, "Intelligent agriculture" technologies play an important role in areas such as achieving high productivity and quality, reducing water consumption and product costs, planning and forecasting the harvest. At the same time, the introduction of smart technologies arouses interest in this network among representatives of the younger generation. This opens the way for the increase of new jobs in the industry. But there is also an issue related to the organization and use of digital agriculture, which creates a demand for qualified personnel with deep knowledge of the field and modern technical and technological knowledge. First of all, agriculture will need new professions - programmers, ITo (Internet of Tools) engineers, IT specialists.

In accordance with the decision of the President of August 19, 2019 "On measures to further improve the activities of Tashkent State Agrarian University", the structure and charters of Tashkent State Agrarian University and its Nukus, Andijan, Termiz branches were re-approved, digital technologies in agriculture , agrotourism, cooperative management in agriculture, hydrobiology, ichthyology, beekeeping, veterinary medicine (by animal species), zooengineering (cattle breeding), agricultural economics, soil inspection and use of land resources, automation of technological processes in agro-industry and technical training of specialists in the areas of service, agribusiness and marketing was launched.

In accordance with the decision, the priority directions of further development of agricultural education and science in these higher educational institutions are the application of innovative resource-saving technologies to the network, "Smart agriculture" (Smart agriculture) and digitized agro-technologies. training of personnel with modern knowledge on implementation was determined. This will be an important factor in the preparation of qualified personnel who can work with digital technologies in agriculture and have thoroughly mastered international experiences, at the time when the state policy is looking at the training of comprehensively qualified personnel in the higher education system. At the same time, it means the need to develop a system of national values necessary for farming culture and farming spirituality in future agricultural specialists. In order to increase the effectiveness of our national culture in the field of agriculture through digital technologies, it is necessary to develop the understanding of national values in future specialists.

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