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MODEL OF THE ORGANIZATION OF DUAL EDUCATION IN THE AGRICULTURAL SECTOR ON THE BASIS OF TECHNOMATIONALISM

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Nowdays scientists are faced with the urgent questions of developing effective models for the recovery of the Ukrainian economy in the post-war period on the basis of science-based mechanisms for the transfer of innovative technologies. In countries with a developed economy, technomationalism is currently emerging as a paradigm of the modern management model, which connects the technological potential and self-sufficiency of the nation with its state security, economic potential and social stability [3]. In the conditions of the emergence of a new era of global systemic competition between different models of innovative and economic development directions and socio-economic stability, these principles remain basic for the life of humanity.

As a rule, the expert community emphasizes the need to implement such areas of technomationalism as aircraft construction, digitalization, robotics, improvement of road transport and other logistics links, etc. But taking into account the place of Ukraine in the international food markets both in the pre-war period and in the subsequent times of the post-war recovery of the domestic economy, it is necessary to pay attention to techno-nationalism in matters of agrarian education, which is the basic direction for the innovative development of domestic and foreign food markets.

A significant decrease in the number of cattle in Ukraine as a result of military aggression on the part of Russian troops has significantly exacerbated the problem of providing industrial complexes with livestock, because according to statistical data more than 30% of productive animals have been destroyed by the end of 2022 [4]. In order to quickly, safely and effectively restore the number of dairy and meat cows, it is necessary to introduce into cattle breeding, as a socially important industry, the mechanisms of innovative reproductive biotechnologies, which have shown their effectiveness in practice, in particular, embryo transfer [1, 2, 5, 8]. It is the implementation of the target model of dual training of zoo-veterinary specialists on the basis of techno-nationalism that will help to reform the outdated structure of agricultural education, which is currently widespread in Ukraine and significantly hinders scientific and educational progress.

To fulfill the tasks set by the post-war period, it was appropriate to cite an example of the previous positive experience of Ukrainian specialists - biotechnologists of the certified Laboratory of Embryo Transplantation (State Certificate No. 8054) in the implementation of innovative mechanisms for the transfer of modern knowledge into the field of real production [5-8].



Fig. 1. Biotechnology stage of embryo transfer to recipient heifers in the dairy complex



Fig. 2. Cryopreserved bovine embryo during in vitro control after the thawing stage (photomicrograph in a Petri dish with a buffer solution, 29x)



Fig. 3. Transplant heifer (biological mother is a highly productive Holstein breeding cow with a productivity of 11,000 kg of milk of basic fat

Source: photo from the author's archive: Embryo Transplantation Laboratory "Poltavaplemservice", 2011-13 years

Applying the organizationally flexible soft-format of the association of specialists of the Agrarian Advisory Service, agrarian practitioners and scientists of a number of scientific and educational institutions of Ukraine (ODAU, IRTG NAAS, DDAEU) a basic model of practical training for operators of cattle reproduction biotechnology specializing in the transfer of cryopreserved - de-preserved embryos was methodologically developed, obtained by import (Fig. 1).

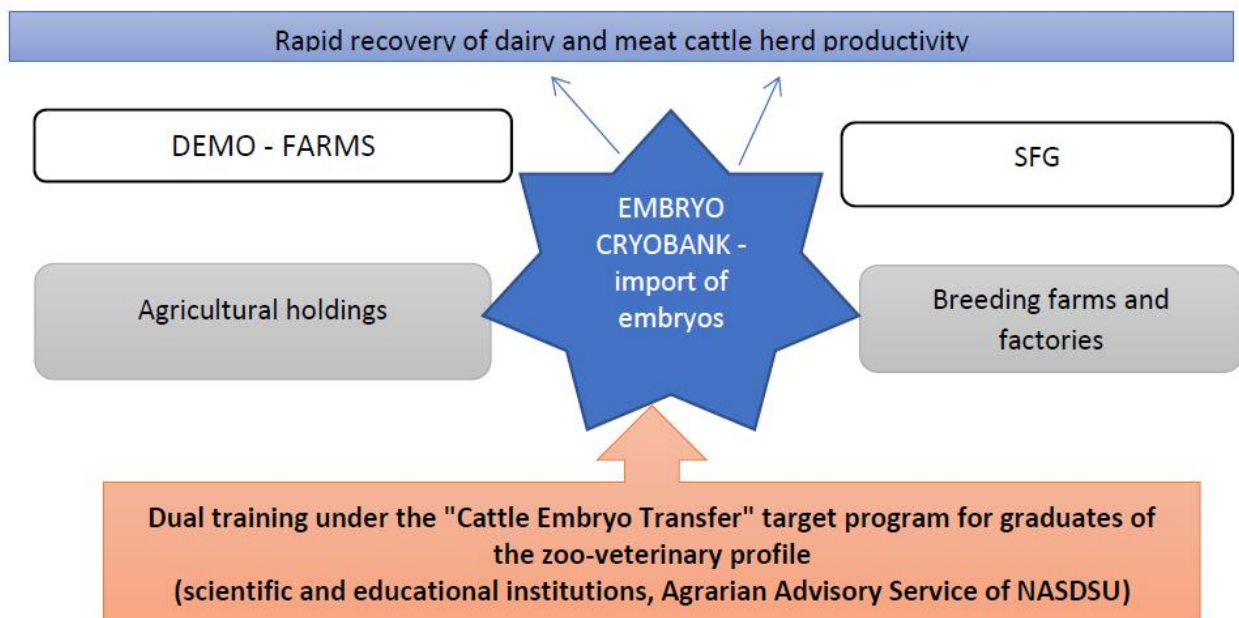


Fig. 4. Organizational and methodological model of training zooveterinarians-operators of embryo transfer for rapid restoration of high-quality cattle stock (Source: author's development).

In our previous publications, we provided detailed explanations why the embryo cryobank and the training of operators for transplantation of frozen-thawed cattle embryos limit the effectiveness of the implementation of innovative reproductive biotechnologies. In the event that programs for the importation of frozen cattle embryos will be used, teams of embryo transfer specialists should already be prepared in Ukraine. Briefly about the advantages of this biotechnology: the ability to quickly, safely, and without the influence of climatic pressure, transport large quantities of genetic resources of the best breeds from different directions; the opportunity for young specialists to quickly acquire practical skills of effective embryo transfer in real production conditions; an opportunity to significantly increase the prestige of work in real livestock breeding for young specialists, etc. [1, 5, 6, 7, 8].

Conclusion.

Implementation of methods of effective and safe restoration of cattle herds in Ukraine, in particular, dual training of embryo transfer operators, requires systematic development of legal, financial and organizational mechanisms at all levels of state administration on the basis of technonationalism.

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