ROLE OF SCIENTIFIC SCHOOLS OF CROP BREEDING AND GENETICS FOR PLANT BREEDERS TRAINING IN UKRAINE

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Abstract

The history of development of crops breeding and genetics scientific schools in Ukraine and their scientific achievements are analyzed. The role of scientific schools in theplantbreeders training is showing.

Key words: scientific school, training, breeding and genetics of crops.

РОЛЬ НАУЧНЫХ ШКОЛ ПО СЕЛЕКЦИИИ ГЕНЕТИКЕ СЕЛЬСКОХОЗЯЙСТВЕННЫХ КУЛЬТУР В ПОДГОТОВКЕ СЕЛЕКЦИОНЕРОВ В УКРАИНЕ

Резюме

Проанализировано историю развития научных школ по селекции и генетике сельскохозяйственных культур в Украине, показано их научные достижения, раскрыто роль научных школ в подготовке селекционеров.

Ключові слова: научная школа, профессиональная подготовка, селекция и генетика сельскохозяйственных культур.

Formulation of the problem in general

Scientific schools have a great importance for the development and establishment of agricultural science and education. Scientific School is informal creative commonwealth of highly skilled researchers of any scientific field, united with common approaches to solving of the problem, work style, joint thinking, ideas and methods of their implementation[10].

To date, the problem of the role of scientific schools of crop breeding and genetics for plant breeders training insufficiently lit.

1 Review of recent research and publications that have begun to solve this problem

The problems of formation, development and the role of scientific schools in training paid much attention to his writings, both domestic and foreign researchers: M. Yaroshevskiy, G. Steiner, V. Gasilov , E. Mirsky, S. Khaitun, B. Kedrov, D. Guzevich. D. Zerbino, Y. Khramov, K. Lange and others.

2 Formulation of goals and objectives of the article

Purpose of the article is to reveal of the role of scientific schools of crop breeding and genetics for plant breeders training. To achieve the objectives were as follows: to analyze the history of the development and establishment of scientific schools in genetics and breeding of crops, to show their scientific achievements, to justify the role of science for the training schools.

3 The main material

In general, the plant breeding as a science is formed in the XX century. At this time are breeding stations, organized courses on selection in schools, given special scientific journals [5]. During this period also appear first scientific schools of crops breeding and genetics.

V. Yuryev belongs to the galaxy of eminent scientists breeders rightfully. Love for breeding science, ability to rally a qualified team, helped him to create his own scientific school on breeding and genetics of crops, which was founded in 1937 on the basis of V. DokuchaevKharkiv national agrarian university [2]. The main direction of academician V. Yuryev research is theoretical and practical aspects of crops breeding. He was first who applied an integrated and comprehensive evaluation of cultivars in breeding. He developed a number of techniques for the study and evaluation of breeding material. This scientist has authored more than 100 scientific and educational-methodical works, including the textbook "General breeding and seed field crops". This textbook was reprinted four times and became the first major educational tool for students. V. Yuryev used in the classroom the latest advances in genetics and breeding, paid great attention to the deep fundamental training of future specialists. He believed that not only lectures and laboratory classes should form a specialist, but also manufacturing practice, familiarity with the selection process and its features directly in the field, watching the plants [12]. Followers and pupils of the school are M. Proskurnin, L. Polyanskaya , T. Goptsiy. They embody ideas of his teacher to the training of future breeders today.

Significant contribution to the development of domestic crop breeding and genetics in Ukraine, did scientists of Uman National University of Horticulture. The scientific school of genetics, breeding and seed crops was based with doctor of agricultural sciences professor I. Chuchmiy. Currently scientific school continues with Dr. F. Pariy.

I. Chuchmiy is zoned for more than 30 varieties and hybrids of winter wheat and barley. His major scientific achievements are associated with the selection of maize hybrids. The scientific results of I. Chuchmiy published in more than 150 scientific works, including monographs, textbooks and about 50 copyright certificates and patents.

F. Pariy is a disciple of the famous scientist, doctor of biological sciences U. Miryuta, who was a disciple of the outstanding genetics of world renown N. Vavilov. F. Pariy research associated with the development of the selection process technology [11]. School activities in modern terms it is an organic combination of deep research with the educational process and production.

On the basis of educational and research institute of Plant, environment and biotechnology of the National university of life and environmental sciences of Ukraine operating such academic schools: breeding, seed production field and horticultural crops and A. Sozinov scientific school

Scientific school of breeding, seed production of field and horticultural crops was founded in 1949 by doctor of agricultural sciences, professor, M. Zelensky . The main focus of the school is the study and improvement of new breeding and genetic methods and accelerate the search for the selection process when creating new varieties of agricultural crops. Maize breeding started in the 50s and continues to the present time. It is being sought and improved methods for creating source material for creating inbred lines.

Direction of scientific activity of academician A. Sozinov scientific school is plant genetics, crop breeding, agroecology and biotechnology. A. Sozinov first proposed the new genetically sound methodological approaches to solve the important problem of improving the quality of cereal breeding and technological way. Under his leadership and with the direct participation were developed methods for the identification and certification and methods of plant varietals seed quality definition. A. Sozinov was one of the initiators of the plant genetic resources national bank of Ukraine, and the implementation of scientific and technical program "Plant Genetic Resources",

has always provided assistance and support in this matter. A. Sozinov pays great attention to the training of new generations of scientists and specialists of agricultural highest qualification [6].

Scientific school of breeding and seed of potatoes and winter wheat based at BilaTserkva national agricultural university was founded by professor, honored worker of science and technology, renowned scientist M Molotskiy [1].

Significant contribution to the development of the agricultural sector was made by scientists of Sumy national agrarian university. Leading scientific schools on breeding and genetics of crops, acting on the basis of the university are: "Using Selection - seed and technological means of intensification of production to improve productivity and quality of potato crop " (supervisor - doctor of agricultural sciences, professor N. Kozhushko), "Selection of potatoes " (supervisor - doctor of agricultural sciences A. Podgaetsky) [9].

Founder of scientific school of breeding and seed at the Odessa state agrarian university was professor V. Pylnev. Under his leadership, scientists have worked intensively on the creation of varieties of winter wheat and triticale. Work is continuing to create varieties of winter wheat and triticale fodder direction, as well as to identify and explore new varieties of winter wheat. Also, with the participation of scientists and breeders - followers of V. Pylnev scientific school prepared national standard seed Ukraine with terms and definitions [7].

The founder of the relatively young scientific school of eco-adaptive selection of legumes based on the Vinnytsia national agrarian university is the doctor of agricultural sciences, professor V. Sherepitko. The scientific work of the school is aimed at studying under Podolsky region of experimental gene pool soybeans and other crops, and on this basis, creating high adapted to agro-ecosystems Ukraine varieties [3].

The department of breeding and seed Lviv national agrarian university, led by doctor of agricultural sciences I. Nechiporuk was created in 1958 a scientific school of potatoes genetics, breeding and seed. The department initiated read on agronomic and economic faculties such courses as "Introduction to agriculture", "Genetics", "Selection and seed", "Fundamentals breeding and seed", "Principles of crop" [4].

At Kherson state agrarian university it is formed and actively work known scientific schools: "Breeding and genetics in crop" (supervisor doctor of agricultural sciences, prof. V. Bazaliy), "Wheat breeding" (supervisor doctor of agricultural sciences, prof. A. Orlyuk). Scientists have developed a theoretical and practical basis for the creation of high-yielding varieties and hybrids of cereals, industrial crops [13].

At the faculty of agricultural technology and ecology of Poltava state agrarian academy is acting scientific school of crops breeding under the direction of doctor of agricultural sciences, professor V. Tishchenko. The main research areas of the school are creation of high-performance, high-quality, adapted to the environmental conditions of winter wheat, peas, millet, soybeans; development of eco-genetic approach in the selection of field crops; improving methods of breeding and seed of major crops; study of the patterns of inheritance of traits [8].

Conclusions

So, in Ukraine there are many schools of breeding and genetics of crops, the principal amount of which is concentrated in higher agricultural education, where training in the specialty "Breeding and genetics of crops". As a result of studies it have found that scientific schools of crop breeding and genetics, as an integral part of higher agricultural education institutions play an important role in the preparation of breeders. Furthermore, scientific schools promoted the introduction of training programs for specialists of crops genetics and breeding.

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