Instituţia Publică
Institutul de Cercetări pentru Culturile de Cîmp
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Public Institution – Selectia Research Institute of Field Crops is one of the best centers in the field of crop science and agriculture from Republic of Moldova

Mr. Vozian Valeriu
The director, doctor of agricultural sciences,
Merited research worker

Selectia Research Institute of Field Crops was founded in Balti according the Decision of Counsel of Peoples Commissars nr.337 from 01.01.1944 in former USSR under the initial name as Experimental Station of SSR Moldova. In 1956 on the base of this Station in Balti and the section of Crop Science which belonged to the Academy of Science of Moldova the Moldavian Research Institute in Agriculture was founded. In 1961 the institute was transformed in the Moldavian Research Institute for Crop Breeding, Seed production and Technology of Field Crops. In 1972 it was transformed in the Research Institute of Field Crops.

In different periods of time the institute was conducted by M.Liubcenco (1945-1957), C.Moraru (1957-1961), M.Lupascu (1962-1978), M.Snegur (1978-1981), I.Untila (1981-1993), M.Vronschih (1993-1999), B.Boincean (1999-2009).

During the whole period of activity (70 years) in the SRIFC "Selectia" 318 varieties and hybrids were bred, including 128 varieties and hybrids registered in Moldova and abroad.

Research works are fulfilled due to 2 doctors habilitate, 12 doctors of sciences and 40 scientific workers.

The main directions of scientific activity:

- breeding of high productive varieties and hybrids of field crops tolerant to main diseases and pests; with improved biochemical indicators for basic production; tolerant to unfavorable environment conditions;
- primary production of seeds and growing of high quality seeds together with seed-producing farms;
- elaboration of ecologically safe technologies with reduced input and minimum negative influence on the environment;
- researches on ecological agriculture, by using long term field experiments with crop rotations, monocultures, systems of soil tillage, fertilization, irrigation, etc.
- elaboration of new sustainable agricultural systems, providing a stable development of agriculture, reproduction of soil fertility and production of safe products;
- training of high qualified specialists for receiving of PhD on specialties – plant breeding and seed production, crop science and agriculture.

The laboratory of breeding and technologies of growing cereal crops

Head of the laboratory
Titu Serghei

The laboratory was founded in 1944. In the laboratory in different periods of time were working fruitfully such scientists as: P.Corobco, M.Liubcenco I.Untila and Lidia Gaina. The main directions of activity are creation of new varieties of winter wheat and winter barley, primary seed production for registered and perspective varieties of winter wheat, winter barley, spring barley, oats and prose millet. Simultaneously the terms and rates of sowing for new created varieties of winter cereal crops are studied.

From the foundation in the laboratory were created 30 varieties of winter wheat, 14 varieties of winter barley, 4 varieties of spring barley. During the last 10 years, 15 varieties of winter wheat and 5 varieties of winter barley were created from the above mentioned amount.

Among the best varieties created in the laboratory, which proved their performance in different trials both in Moldova and abroad we can mention the following varieties of winter wheat: Beltskaia 32, Dnestrovschaia 25, Piticul, Dnestreanca, Belceanca 5, Belceanca 7, Dumbravita, Columna, Izvoras, Alunis, Capriana, Select, Vatra, Balada, Podoima, Avantaj, Accent, Bastina, Lautar, Meleag; among the varieties of winter barley we can mention: Iarna, Moldavschi 11, Moldavschi 18, Tighina, Mugurel, Ciuluc, BT-14-02, Stralucitor, Scinteia; for spring barley: Primavara, Unirea, Ionel.

The laboratory is producing annually the required amount of high quality seeds for maintaining and renewing the varieties of cereal crops grown in production conditions.

At the moment 16 people are involved in the activity of the laboratory, including 6 research workers, 5 technicians and 5 workers.

Laboratory of breeding and working out technologies of growing leguminous and forage crops

Head of the laboratory
Valerii Vozian,
doctor of agricultural sciences, merited research worker

The Departments of Leguminous crops and forage crops which have been unificated in the nowadays laboratory were founded in 1944 simultaneously with the foundation of the state Experimental Station for Breeding.

A considerable contribution in plant breeding for leguminous and forage crops have made such plant breeders as: V.Gordienco, Irina Procofiev, N.Golban, Victoria Corobco, Ecaterina Vetrova, V.Kazanji, I.Tcacenco etc.

During 65 years of activity in the laboratory were created and registered 62 varieties of leguminous and forage crops including: 13 varieties of peas, 20 varieties of soybeans, 11 varieties of dry beans, 13 varieties of winter vetch and spring vetch, 4 varieties of alfalfa, one variety of Galega oficinalis and one variety of prosomilet. During the last 5 years such varieties as: Aura (soybeans), Avanta AS (alfalfa) have enlarged their area not only in Moldova, but they were registered also in Ukraina and Belarusi. The share of such varieties in the structure of sowing area in Moldova consists 80-90%. Such varieties as Omega (peas), Crizantema (dry beans) and Vilena (winter vetch) are well known and grown by agricultural producers of Moldova.

The new registered varieties of peas (Valexa), soybeans (Enigma), dry beans (Nicolina) and spring vetch (Lorina) have a high biological potential of production, resistance to lodging, drought and tolerance to diseases. Simultaneously with research activity the actual team of plant breeders are involved very actively in the extension work.

At the moment in laboratory are works 6 researches, 6 technicians and 6 workers.

The laboratory of breeding and technology of growing for technical crops

Head of the laboratory Boaghii Ion,
doctor of agricultural sciences

The laboratory includes two groups: one for breeding and technology of growing sunflower and the other one for sugar beet.

The group for breeding and technology of growing sunflower was founded in 1977. In different times it was conducted by Tamara Nicitcina (1977), M.Buciucianu (1977-1994) and V.Lesnic (1994-2000), I.Petcovici (2001-2009), I.Boaghii (2009-2010), V.Lupascu (2011-2012), S.Railean (2012-2013). In this period 14 hybrids of sunflower were created and registered. The oil seed production potential of the created hybrids is more than 5,0 t/ha and oil content reaches 49,0-54,0 per cent. The yield record 6,92 t/ha was provided by hybrid MPC 8506 in the Republic of Belarusi.

The laboratory has elaborated and improved the methods of parental lines seeds and seed F_1 production and the technology of sunflower for oil seeds growing. Besides, the laboratory has experience to organize the specialized zone for producing annually more than 10 thousand tones of first generation seeds.

At present 5 research workers, 4 technicians and 3 workers are working in this group.

The group of breeding and technology of growing sugar beet was organized in 1960. In different years researches have been conducted by Hangan A., Crivceanschi V., Perju V., Botezatu M., Hropotinschi P.

28 varieties and hybrids have been created from the foundation of the former laboratory. Such hybrids as Vilia, Manuela, Scorpion and Vodolei on citoplasmatic male sterility have been registered together with thevariety Moldavscaia odnosemeannaia 41. The yield potential is 60-85 t/ha, the content of sugar 18-20%.

The technology of growing sugar beet and direct and indirect methods seed production have been worked out.

At the moment 5 research workers, 4 technicians and 2 workers are working in the group.

Laboratory of crop protection

Head of the laboratory,
Mihail Vronschih, doctor habilitate of biological university
professor, member-corespondent of the Academy of Sciences of Moldova

In different periods of time the laboratory was conducted by T.Polevoi (1945-1952), A.Kustova (1959-1961), M.Moldovan (1962-1967), T.Kolesnic (1968-1971).

Since the foundation the laboratory worked out and implemented: the system of crop protection for field crops, according the technological stages of agricultural production development in Moldova.

During the last 30 years systems of crop protection for cereal and leguminous crops, forage crops, sunflower and sugar beets have been worked out and implemented as component parts of industrial technologies of growing field crops.

By using system analyses of agroecosystems it was proved the level of influence of meteorological and antropogenic factors on the development and injurious effect of the most harmful pest and deseases. Computer modeling allowed to work out the long-term forecast for the development of pests and deseases in accordance with the variant of technology of growing for each crop and possible changes of climate.

Annually 2,8-3,2 thousand samples of local breeding material and 500-800 samples from different countries are evaluated both on natural and artificial backgrounds of infestation. Researches from the laboratory are coauthors of 23 varieties and hybrids with high tolerance to the most dangerous deseases.

The group of weed control (where in 1960-1970 well known scientist Iosif Liberstein was working) is studing the dynamic of weed infestation for different field crops. They are doing trials with different systems of weed control in a specialized crop rotation. Annually the group is doing trials for at leest 65-75 samples of different chemicals from the leading world chemical companies. Such trials allowed to recommend the most efficient chemical preparations with low negative impact on the environment.

The researchers of the laboratory are owners of 30 author certificates on inventions, authors of 25 books and 560 scientific articles.

At the moment in the laboratory are working 8 researches, 6 technicians and 6 workers.

The departments of sustainable farming systems

The Head of the Department
Boris Boincean,
doctor habilitate of agricultural sciences,
research profesor

The Department was founded in 1944. A considerable contribution in the development in basic agronomic knowledge for agriculture of Moldova have had such scientists as: M.Sidorov, N.Lebedev, I.Liberstein, P.Chibasov, Z.Naconecinaia, V.Mihalcevschi, M.Matina, L.Nica and others.

The Department is conducting researches in long-term field experiments with different crop rotations and permanent crops, systems of fertilization and irrigation in crop rotations. The duration of such experiments is more than 50 years. Since 1989 the new polyfactorial experiments have been initiated on action and interaction of crop rotations, systems of soil tillage and fertilization, without using chemicals for pest, weed and desease control.

The results obtained in long-term field experiments have been used for the elaboration of farming systems in Moldova, for publication of many books on crop rotations, irrigation, systems of soil tillage and fertilization in crop rotation, weed management and others. They are used also for practical training of farmers during seminars, for educational work with students and post graduated students. The accumulated scientific knowledges allows to make the transition to a more sustainable, including ecological farming systems.

At the moment in the laboratory are working 12 researches, 8 technicians and 4 workers.

Instituţia Publică Institutul de Cercetări pentru Culturile de Cîmp „Selecţia” - 70 de ani de la fondare.

Crearea soiurilor şi hibrizilor culturilor de câmp, elaborarea tehnologiilor moderne de cultivare. Producerea şi realizarea seminţelor de calitate. Elaborarea sistemului de agricultură durabilă.

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