alternate variety has been developed and included into the State Register. The first winter pea varieties ‘Zimus’ and ‘Fokus’ leafless, sent for the State Variety Trials in the Northern Caucasus, are described.

Key words: breeding, pea, wintering, spring, variety, seeds, alternate, whiskered leaf type, yield capacity, seed-shattering tolerance.

Germantseva N. I. CHICKPEA BREEDING IN THE DRY STEPPE ZONE ENVIRONMENTS OF THE VOLGA REGION. Proceedings on applied botany, genetics and breeding**.** Vol. 175. I. 3. 2014. pp. 66–82.

The outcome of the breeding work with chickpea at Krasnokutsk Station over the 80-year period is summerized.The methods and main trends of breeding practice are outlined. The characteristics of the chickpea cultivars developed at the station are presented.

Key words: chickpeas, breeding, cultivar, yield.

Balashov V. V., Balashov A. V., Bulyntsev S. V. 50 YEARS OF CHICKPEA BREEDING ACTIVITIES AT VOLGOGRAD STATE AGRICULTURAL UNIVERSITY. Proceedings on applied botany, genetics and breeding**.** Vol. 175. I. 3. 2014. pp. 83–97.

The history of chickpea breeding at Volgograd State Agricultural University and the results of this work are highlighted. The prospects of expanding the areas under this valuable grain legume are discussed and the ways to increase its productivity are outlined. The model of a promising cultivar is developed.

Key words: chickpea, collection, hybridization, cultivar, model of a cultivar.

Chesnokov Yu.V. COMMERCIAL ROUNDUP READY SOYBEAN. Proceedings on applied botany, genetics and breeding**.** Vol. 175. I. 3. 2014. pp. 98–107.

Resistant to glyphosate Roundup Ready® soybean of Monsanto Company was one of the first genetic engineering modified crops which were allowed for commercial use in 1996. In 2013, planting of commercial transgenic soybean was about 80% of all cultivated varieties of this crop. During 17-years period after commercialization of soybean, besides identification of structural modification in its genome, some unexpected effects concerning the use of transgenic soybean have been revealed. It is shown that with the possibility of genetic contamination of soybean genetic resources, widespreading of herbicide Roundup using is not only leading to a loss of genetic diversity in (agro)biocenosis, but has a great unfavorable impact and consequences for (agro)biodiversity, including complex plant-microorganisms interaction occurring in soil.

Key words: *Glycine max*, transgene, Roundup resistance, genetic contamination, preservation of biodiversity.

Burlyaeva M. O. USING ISSR MARKERS FOR THE EVALUATION OF GENETIC POLYMORPHISM AND TAXONOMIC RELATIONS OF THE GENUS *LATHYRUS* L. REPRESENTATIVES. Proceedings on applied botany, genetics and breeding**.** Vol. 175. I. 3. 2014. pp. 108–118.

Molecular heterogeneity was studied in 72 accessions of *Lathyrus* L., *Vicia* L., *Pisum* L., *Lens* Mill. from the collection of Vavilov institute by using ISSR markers. The study revealed a high level of inter- and intrageneric polymorphism. New data proving specific generic status of accessions with disputable taxonomic position have been obtained. It was proved the baselessness of including the species from the section *Cicercula* (Medik.) Gren et Godr. into the section *Lathyrus*. The independence of spp. *Lathyrus clymenum* L. and *L. articulatus* L. has been proved. The closeness of oroboid species *Vicia unijuga* A. Br. with both *Vicia* and *Lathyrus* has been revealed.

Key words: *Lathyrus*, *Pisum*, *Vicia*, *Lens*, ISSR markers.

Burlyaeva M. O., Seferova I. V., Buravtseva T. V., Bulyntsev S. V., Aleksandrova T. G., Vishnyakova M. A. THE INCREASE OF GENETIC DIVERSITY OF WILD GRAIN LEGUME RELATIVES IN THE VIR COLLECTIONS AS A RESULT OF COLLECTING ACTIVITIES IN 2008-2012. Proceedings on applied botany, genetics and breeding**.** Vol. 175. I. 3. 2014. pp. 119–141.

The article presents the results of 14 expeditions that collected the crop genetic diversity of grain legumes in the Russian Federation, Armenia, Georgia and China in 2008-2013. These collecting missions added 544 seed accessions of 62 species to the collection of the department. The collected 25 species of

Vicia L. and *Lathyrus* L. genera had been absent and entered the collection for the first time. Many of them are endemics and tertiary relicts, and occur very rarely in natural environments. A few collected species are listed in the Red Data Book of the Russian Federation and regional Red Lists. The species *Vavilovia formosa* (Stev.) Fed., *Cicer minutum* Boiss. et Hohen., *Vicia macrantha* Jurtz. and *V. ohwiana* Hokokama were found in new habitats.

Key words: expedition, *Cicer*, *Phaseolus*, *Glycine*, *Lathyrus*, *Lupinus*, *Pisum*, *Vavilovia formosa*, *Vicia*, *Vigna*.