

## Wheat as a crop in the national economy importance

*Barotova Anisa Razzokovna*

*Tashkent State Agrarian University, Specialty*

*"Selection and Seed Breeding", Independent Researcher*

*Sobirova Gulsanam Xursandjon qizi*

*Tashkent State Agrarian University student*

**Abstract** The theoretical significance of the research is the development of scientifically based recommendations on the prospects of using soft wheat varieties and samples with valuable traits for the economy in selection processes

**Key words:** Wheat, cultivated, economic, selection, bread, methods, products, high temperatures.

Wheat is the world's major cereal crop, and the demand for high-quality spring wheat baking grain is currently not being fully met. One of the reasons for this is the low quality of the cultivated grain. In the region, the share of bread wheat grain (product class III and higher) is about 30% of the harvested grain of soft wheat. In addition, the cultivation of high-quality wheat grain is a necessary condition for strengthening the economic position and competitiveness of the economy All over the world, selection directions for improving the quality of agricultural products are spreading widely. The leading role in improving grain quality is assigned to the variety. It is possible to grow high-quality wheat grain only with constant control of grain quality at all stages of selection, testing, zoning and cultivation. Therefore, it is urgent to study new varieties of wheat characterized by high productivity, quality, resistance to adverse environmental factors, which allows to reduce the shortage of raw materials for bread production. More than half of the 9 world's population uses wheat bread for food. Wheat bread is superior in taste and value to bread made from the flour of other cereals. 100g of wheat bread contains 245-255 kcal, 100g of pasta and wheat semolina contains 355-358 kcal. Wheat grain contains from 11% to 20% protein, 63-74% starch, up to 2% oil and the same amount of fiber and ash. The quality of wheat grain varies depending on the protein content, its variety, and the climatic conditions of the region where wheat is grown. In addition to bread, wheat is used to make pasta, confectionery and other products. Alcohol, starch, glue and various other technical products are obtained from grain. Waste from

flour production and straw are used as fodder and bedding for cattle. In addition, various cereals are prepared from wheat grain. Specially created varieties are used for food preparation. Wheat bran, bran, straw, wheat bran have high nutritional value. Its bran is highly concentrated feed for all farm animals. Bran is also used in the preparation of mixed fodder. (google/fao). In the Republic of Uzbekistan, in 2022, wheat was planted on a total of 1,223,834 hectares, and if the average quintal is 58, the total wheat harvest this year is 7.0 million. tons, and the limited water resources in our Republic at the present time and the increasing water shortage and soil salinity in our region in the following years have an effect on the high yield of wheat varieties. Therefore, in the course of scientific research on soft wheat selection and initial seed production, it is necessary to have such concepts as line, pure line, family, selection methods, hybridization, biotechnology, genetic engineering.

The growing period of wheat ridges with early characteristics. In the conditions of Uzbekistan, wheat occupies the main place among grain crops, and wheat currently occupies 197 thousand hectares of the irrigated area of 1084 thousand hectares. Currently, the main biological characteristic of grain varieties is the length of the growing season. In winter wheat, this feature determines their productivity. In other words, when placing 30% of early-ripening varieties, 60% of mid-ripening varieties, and 10% of late-ripening varieties in each area before planting, the ground is created for removing grain from the field during the harvest period. It can be considered that the problem of high intensity, technology and high quality of wheat has been solved. In Uzbekistan, they have been engaged in the selection of wheat crops for many years and high-yielding, drought- and disease resistant high-quality varieties suitable for local conditions have been created. Due to lack of response, a large number of varieties created in foreign countries and included in the State Register are planted in Uzbekistan. For example, from Russia (Krasnodar Agricultural Research Institute named after P.P. Lukyanenko)—8 varieties, from France (—Deliplankll firm)—5, from Hungary (—Babolnal firm)—2, from Egypt (Egypt)—6, soft Biological autumn, spring, duvarak varieties of wheat are common in irrigated and dry lands. Among the wheat varieties regionalized in the Republic and included in the State Register, many varieties of autumn and spring soft wheat varieties and part of autumn durum wheat varieties were created by breeders of Uzbekistan, but no variety of spring soft wheat was regionalized (Cereal crops seed science-2014 and selection and breeding of

agricultural crops-2014). Evaluation of drought tolerance indices of wheat under different environmental conditions. (Ukrainian Journal of Ecology 2018, Qurg'oqchilik stressi Rossiyaning Oltoy o'lkasida bug'doy hosilini cheklovchi eng muhim omil hisoblanadi. Stressli va stressli bo'lmagan muhitda saqlashga qarab genotiplarni tanlash uchun bir nechta tanlov mezonlari taklif qilingan. Biz uch yil davomida (2010-2012) uchta takrorlash blokli dizaynda bahorgi non bug'doyining etmish besh genotipini sinab ko'rdik. Sinovlar Rossiyaning Oltoy qishloq xo'jaligi ilmiy-tadqiqot institutida o'tkazildi. Har bir genot uchun qurg'oqchilikka hosildorlik indeksi (SDI), o'rtacha hosildorlik (MP), tolerantlik indeksi (Tol), stressga sezgirlik indeksi (SSI), o'rtacha geometrik hosildorlik (GMP) va stressga o'sish indeksi (STI) hisoblab chiqarish. stresssiz va stress tufayli don hosildorlikka erishish. Birinchi, va muhitdagi stress intensivligi indeksleri (SI) mos ravishdagi past (SI = 0,39), o'rtacha (SI = 0,56) va yuqori (SI = 0,80) edi. Turli xil qurg'oqchilikka indekslar va qurg'oqchilikka sezgir genotiplarning o'ziga xos xususiyatlarini berishini aniqladik. SSI to'liq SDI qiymatga 13 mos keladi va STI GMP kalitga mos keladi (= 1,00). Tolerantlik SDI bilan chambachas bog'liq ( $r = 0,83-0,86$ ). SDI va SSI stress kuchli bo'lgan bug'doy etishtirish uchun foydali indekslar sifatida taklif qilish, agar stress kamroq bo'lsa, STI, MP va GMP tavsiyasi. Yuqori hosildorlik potentsiali bo'lgan genotiplarni o'rtacha darajada aniqlash mumkin, ammo kuchli qurg'oqchilik stressida emas. Drought is the most devastating abiotic stress in the history of agriculture. Drought can be short-term (at the beginning, middle or end of the growing season) and long-term (throughout the growing season), depending on its onset and duration, with varying degrees of intensity. This phenomenon is not just water scarcity, but a complex combination of water scarcity, temperature stress, hot wind, soil salinity and other abiotic factors. The damage caused by it is more than other stress factors. Between 1967 and 1991, droughts affected 50 percent of the 2.8 billion people affected by weather-related disasters (Kogan, 1997). Various degrees of drought stress can be observed in almost all climate zones (Passioura, 2007) and reduce wheat yield by 50% due to a significant reduction in plant growth and shoot production (Reynolds et al., 2007). 2008, 2012). The Russian Federation experienced a particularly severe drought in 2010 and 2012, which led to the complete or significant loss of crops, including wheat, in some areas. A characteristic feature of the growing season in Siberia is the development of drought from the stage of germination to flowering. Lack of moisture is often accompanied by high temperatures. Flowering and grain filling usually occur with sufficient

rainfall. An effective way to reduce drought damage is to grow drought-tolerant varieties. But breeding for drought tolerance is complicated by the lack of rapid, reproducible screening methods and the inability to routinely establish precise and reproducible water stress conditions under which large numbers of genotypes can be efficiently evaluated (Ramirez & Kelly, 1998). The drought susceptibility of a genotype is often measured as a function of yield reduction under drought stress (Blum, 1988). In Russia, the value of yield reduction in dry years compared to the yield of the variety in years with sufficient rainfall during the growing season is used as a criterion for evaluating the drought resistance of a variety (Litvinenko & Leshin, 14 1993). This corresponds to the Sensitivity Drought Index (SDI) proposed by Farshadfar and Javadiniya (2011y). Genotypes with a low value of this index are more favorable. In a broader agronomic sense, drought tolerance is determined by the ability of a variety to obtain the highest yield under drought conditions compared to other varieties ( $Y_s$  is grain yield under drought conditions). Evaluation of absolute yield and comparison of yield in dry and wet years, taken separately, do not give complete information about practical drought resistance of the variety and should be done in parallel (Kumakov, 1985). Currently, researchers are trying to comprehensively assess the drought tolerance of cultivars using drought tolerance indices (Golabadi et al., 2006; Farshadfar and Sutka, 2003). Many authors have studied the correlation of these indices with grain yield under stress and non-stress conditions. Aliakbari and others. (2013) tolerance Tol and MP indices appeared the most

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