

CULTIVAR – IS THE BASE OF TECHNOLOGY OF SPRING WHEAT IN SOUTHERN PART OF THE RIGHT-BANK FOREST-STEPPE

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The article is devoted to the elements of technology of cultivation of spring wheat on the humus-biological background of nutrition in the southern part of Right-Bank Forest-Steppe of Ukraine. As a result of conducted investigations it was established that the level of productivity of middle-ripening cultivar of spring wheat is higher than early-ripening. The yield of spring wheat primarily depended on the term of sowing, sowing rate and the preceding crop. The yield of early ripening cultivar Vitka was in the range of 4.00–4.53, and middle-ripening cultivar Kolektyvna 4.08–4.94 t/ha and . The lowest yield of both cultivars in the experience was in cultivar Vitka – 3.26-3.90 t/ha, and cultivar Kolektyvna 3 – 3.33-3.99 t/ha. It was noted that in the southern part of Right-Bank Forest-Steppe, to sow spring wheat is advisable after soybeans in the first half of the first decade of April.

Spring wheat – is one of the most important crops in Ukraine. Its importance increases during years with adverse conditions of autumn-winter period. Soft spring wheat – the culture of early sowing terms, but their impact and reaction on the preceding crop of different level of ripeness cultivars of crop were not enough studied.

Sowing of spring wheat in the Forest-Steppe of Ukraine is of great interest, and sometimes causes acute differences in the scientific and agronomic environment. Currently, there are two opposing views on this issue. One of them recognized only the early sowing term after the physical soil maturity.

Experiments conducted in the field crop rotation of the Department of Plant Growing of Uman National University of Horticulture, where crops are grown with the help of environmentally appropriate, energy-saving technologies in 2000-2011 by the following scheme: factor A - spring wheat variety, Vitka (early ripened) and Kolektyvna 3 (middle ripened); factor B - predecessor: soy bean and maize after grains; factor C - sowing term. Spring wheat was sown at intervals of 5 days, starting with the first five-day of April (April 5, 10, 15), taking into consideration the fact

that it is the culture of early sowing terms, and on spring sowing layer moisture and soil temperature change over a short period of time.

Seed sowing norm is 5 million seed/ha. Land area of 75 m² and 50 m² – accountable area. Repetition is quadruple. Wheat was harvested by grain combine ‘Sampo – 500’. Accounting, monitoring and laboratory tests were carried out in accordance with generally accepted methods of field and laboratory studies.

Conditions of the next period of sowing vegetation are of a great importance. In spite of certain deterioration of wetting topsoil in the second half of the first decade and in the second decade of April in 2009 and 2010, relative air humidity decreased respectively from 56% to 53% and from 71% to 67%. Only in 2011, the index was not changed.

In general, conditions of the first half of wheat vegetation were the least favorable, especially for the third sowing term in 2003 that affected the average indices of formation of agrophytocenoses of both wheat varieties.

Observations showed that the phenological phases in the second and especially the third sowing terms was a bit different compared to the first: tillering took place a few days later but the booting phase was observed almost simultaneously with the first term. This can be explained by the fact that for the next vegetation phase, a certain amount of temperatures is required.

During the later sowing terms, this amount is collected faster. That’s because the mass of plants before the booting phase during the first and especially the third sowing terms was lower. At the beginning of booting phase, mass of plants of Vitka variety in the first sowing term after soybeans amounted 0.64 kg/m² and variety Kolektyvna 3 – 0.67 kg/m²; in the second term, respectively – 0.56 and 0.62 kg/m²; the third – 0.46 and 0.51 kg/m². These indices were a little bit lower after corn on grain.