

Peculiarities of the Growth and Development of Triticale in Comparison with Wheat and Rye

J. PETR and D. HRADECKÁ

Czech University of Agriculture, 165 21 Prague-Suchbát, Czech Republic, e-mail: jpetr@af.czu.cz

Abstract: Growth pattern was studied using the decimal scale of phases (Zadoks), development according to the degree of differentiation of the stem apex (the stage scale Kuperman). Winter rye grew the fastest of all three species. *Triticale* was closer to rye than wheat. The length of the stem apex and the degree of its differentiation were most advanced in the rye. *Triticale* was also closer in this quality to rye than wheat. The variety Lasko differed in its growth and development, being advanced in organogenesis. We can associate its fast development with a short vernalization requirement and lower resistance to winter conditions. After renewal of spring vegetation, winter rye has again the fastest growth and development; winter triticale is slightly slower. Earlier start of growth and differentiation of the stem apex (the spike) in a short spring day and under lower temperatures are connected with higher potential productivity of rye and triticale spikes. The duration of vernalization in varieties of triticale rye and wheat were found and classified into three groups: Varieties with a short vernalization: Lasko, Presto, Ugo, Malno, UH 116, UH 127. Wheat: Elpa, varieties of winter wheat durum Varieties with a medium vernalization: Grado, Dagro, Korm. Wheat: Rialto, Trend, Apache, Bill. Varieties with a long vernalization: Largo, Bolero, Salvo Wheat: Banquet, Illias, Drifter, Rheia, Sulamit. Rye: Dankowskie nowe and other rye varieties