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THE ROLE OF TIME RENEWAL OF SPRING VEGETATION IN ONTOGENESIS, PHYLOGENESIS AND SELECTION OF OVERWINTERING PLANTS

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Time renewal of spring vegetation plays a significant role in overwintering plants because it is an integral indicator light, thermal and hydrothermal conditions of these plants in the period from spring awakening to the generative phase. The development of plants depends not of the calendar date TRSV but solar radiation pressure of high or low sun in the day of the growing season. As TRSV changes over the years in a wide range (in winter wheat in Poltava from 05.02.2001 to 20.04.2003), so the height of the sun at apogee varies for plants the same way producing very different energy, light and photoperiodic conditions of spring development for crops. Therefore, in practice, should proceed from the fact that TRSV doesn't predict but determines, specifies, program the parameters of light, thermal and hydrothermal conditions for spring development of overwintering plants thus turn to us from uncontrollable and unpredictable to known in advance, regardless of the weather the more TRSV deviates from the norm this year.

This conclusion is the fundamental basis for the development of new agroecological directions in the management of ontogenesis, protection and selection mainly of winter crops. In the management of plant ontogenesis its importance lies in the fact that through this understanding, people obtain the power to control not only the earth (moisture, supply), but also space (light, heat) living conditions of overwintering plants and on this basis to create innovative next-generation technology, methods not theoretical, but reliable practical programming productivity and product quality, it is impossible for the previous level of biological and ecological knowledge. A number of technologies already established in Ukraine, Russia, Germany, Czech Republic and they operate in the world.

In the field of plant protection from pests and diseases is expanding ability to control the functioning of ecosystems plant-pest-

environment, especially for biotrophs and biophages in case of violation optimal connections in the system caused by extremum of TRSV.

Time renewal of spring vegetation has prominent role in evolution morphogenesis (phylogenesis) of overwintering plants, because if they grow up in the same place, only if the TRSV range they can adapt to photoperiod amplitudes which enable type, shape settlement beyond its areal.

For plant selection ecological effect of TRSV is interesting in the sense that it allows to single out natural and to create artificial backgrounds ecological stress of plants. For selection winter wheat genotypes on winter resistance, heat-resistance, the ability to form productive stems density, tolerance on specific diseases and pests, adaptability, homogeneity and stability there is a background of artificial detention regrowth of plants or natural late and very late TRSV. Under these conditions, in plants ontogenesis it is completely falls out favorable period their adaptation to active life, transparently allocated heterogeneity of varieties and populations in certain characteristics caused genetically, is dynamic lines as systems in balance, which is a necessary condition for self genome, and it provides the right selection of genotypes . The universally recognized theory of hardening plants I.I Tumakova only partially explains the nature of frost and winter resistance, practically one-sided, because the resistance of plants to stress factors depends on the conditions out of winter dormancy (adaptation) as dependent TRSV as on the conditions of entry (hardening) to it. So winter resistance should be considered as the genotype ability to obtain hardening before entering the winter dormancy, resist winter stressors and adapt to the exit from winter dormancy, depending on TRSV. A number of winter-hardy, adaptive, morphologically homogeneous varieties of winter wheat Levada, Dykanka, Vilshana, Sagaidak, Orzhitsa, Tsarichanka that are listed the State Register of Ukraine, and number of prospective varieties are grown in Poltava State Agrarian Academy (Tishchenko, 2012) because of their ability to adapt to artificial late vegetation (store density of productive stems). For the selection of the following features as plant height, resistance to lodging, specific gravity (weight) of grain in sheaves, potential productivity, stability of gluten, protein and amino acids in corn it is used the background of early and very early vegetation, because of late vegetation parameters of selection samples quality are aligned which makes the selection of the best genotypes

almost impossible. Preliminary selection of the quality can lead by protein content in the green mass, since the phase out plants in the tube, on the basis of the ratio between varieties for protein content in the plant during the vegetation remains until full maturity of grain (Medynets, 1982).

Photoperiodic sensitivity (PhPS) of selective numbers can be found by analyzing the field experiment data, when in year with early vegetation (before 10 March) we can delay the start of regrowth for 25-30 days, and the difference in the length of daylight is not less than 2 hours. When regulated by the date of full earing each variant numbers into three groups earliness with a difference equal to 0.95 NIR (usually 2-3 days), compared the earing date in two backgrounds. Varieties that preserve group earliness in both backgrounds are included in the neutral with weak PhPS. Varieties are very sensitive to photoperiod, which go from the first to the third group (in our experiments Zastava Odeska, Levada) is precocious in years with early and late in years with late vegetation that is behave like short day plants. Varieties that are moving from the third to the first group (Dniprovska 127, Myronivska 901) behave as typical long day plants, that is precocious in years with late and late in years with early TRSV and is also very sensitive to photoperiod. The remaining varieties belong to the middle PhPS.

Late renewal of spring vegetation as a natural (in Poltava on March 30-April 20) and artificially created is a powerful ecological stressor for winter wheat. It allows to reveal often hidden properties of individual samples, provides first of all a selection of stable genotypes for productivity, adaptive to the conditions vary greatly.