NEW ALLELE OF *PPD-D1* GENE IN *AEGILOPS TAUSCHII* ACCESSIONS

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Photoperiod has an important effect on plant growth and development. *Ppd-Dl* (2DS) is the one of most potent genes affecting the photoperiod response of wheat *(Triticum aestivum).Aegilops tauschii* is the D genome donor species for wheat. Several research works were carried out to investigate structure, distribution, evolution and relationships of *Ppd-Dl* gene with major agronomic traits (Beales et al., 2007; Yang et al., 2008; Guo et al., 2010). According to these works *Ppd-Dl* gene was sequenced and 6 alleles were revealed. Among these alleles only the deletion of2089 bp upstream the coding region is associated with photoperiod insensitivity - allele *Ppd-Dla.*

Using markers previously reported for identifying the upstream 2089 bp deletion (Beales et al., 2007) the four polymorphisms of *Ppd-Dl* gene were studied in 21 *Aegilops tauschii* accessions (K55, K76, K108, K178, K216, K358, K362, K389, K396, K415, K602, K608, K624, K667, K677, K678, K994, K1322, K1761, K1957, K2363) that were kindly provided by Dr. Motsnyy I.I. (Plant Breeding and Genetic Institute, Odessa). With primers Ppd-D1_F andPpd-D1_R1 the fragments 414 and 453 bp have been amplified for *Ae. tauschii* accessions that fragments were previously known and associated with 2089 bp deletion. The varieties of *T. aestivum* with amplification fragments 414 and 453 bp carried the recessive day length sensitive allele -*Ppd-Dlb* and the only difference between these two alleles is caused by 24 bp and 15 bp insertions separated by 105 bp in the 2089 bp intact region (Beales et al., 2007). In our study we

have detected one new allele that had not been reported before which amplified both 429 bp. The further investigation of structure of these alleles by means of sequencing techniques is required, but we can speculate that in the intact 2089 bp region of these alleles only one from the previously reported insertions 15 bp is situated.

We have not detected *Ppd-Dla* allele that encode photoperiod insensitivity in any of investigated *Aegilops tauschii* accessions, but it is quite common for modern winter wheat varieties.