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ON THE UNKNOWN MECHANISMS OF MEIOTIC CELLS DIVISION AT *TRITICUM AESTIVUM* L.

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Studies of anaphase I at a full series monosomy lines of a grade of wheat Milturum 553 showed that the univalent at this stage has three main types of behavior: unipolar when the univalent departs to one of opposite poles; bipolar when the univalent is split on two chromatides on mitotic type; apolar at which the univalent does not interact with poles and forms a microkernel in dyads. The ratio of three types of behavior of a univalent significantly varied on lines. However, in general on a genotype, a ratio between quantity of anafazny cages with unipolar type of behavior of a univalent and cages with alternative type of his behavior (bipolar + apolar) it was close 1 to 1. Ability of a univalent to behave in an anaphase of I with a frequency of 50% as reducing division shows that the trigger of transition of chromosomes from a mitosis to meiosis at the cytologic level is the co-orientation a centromere in a zone of an initial pole of one haploid set of chromosomes. At this time the second haploid set keeps the former mitotic orientation. The analysis of the ranged row of frequency of unipolar orientation of a univalent showed that prevention of conjugation of homeolog at an allogeksaploides type of wheat is reached by spatial dissociation of chromosomes. At the same time, if the situation of a possibility of orientation of two adjacent homeolog in one direction is created, the mechanism of replacement of a polar co-orientation a centromer of one homolog on another works.

Keywords: meiosis, chromosome, univalent, pole, monosomy series, wheat