

ASSIGNMENT OF LINKAGE SEGMENTS TO CHROMOSOMES 3,4,5 AND 7

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A revision of the previous interpretation of WL 21 as possessing a T(3L-7S) interchange has suggested an exchange of linkage groups III and V between chromosomes 3 and 5. Using cri, coch and tl as marker genes, linkage analyses were performed using a line of normal structural type (WL 5137) and interchange lines of Lamm's tester set, i.e. L 83 T(3S-5L)a, L 87 T(3-5)b, and L 112 T(3L-7S). The linkage analyses have confirmed a previous suggestion by Lamm and Miravalle (1) that linkage group V should be extended with the bt-tl-r segment. The previous suggestion of locating the centromere of linkage group V in the vicinity of gp and b of linkage group III has been supported.

BSG-staining was used to recognize satellite chromosomes in meiosis of F₁ plants in crosses between interchange lines of Lamm's tester set and WL 110 of normal structural type. The presence of two rings of four in an intercross between interchange lines 84 and 111 belonging to Lamm's translocation tester set, suggests the separation of wsp from the r-tl-bt segment. An assignment of linkage segment to satellite chromosomes locates wsp and the wa-oh segment in separate satellite chromosomes. A compilation of the meiotic configurations in different intercrosses of Lamm's tester set and linkage analysis shows that the segments st-b, gp-tl, wlo-pl, a, wa-oh, le-v and wsp are distinct entities from separate linkage groups. Further details will be published in *Hereditas*, Lund.

1. Lamm, R. and R.J. Miravalle. 1959. *Hereditas* 45:417-440.
