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MEIOTIC CHROMOSOME BEHAVIOR IN TETRAPLOID HYBRIDS BETWEEN SYNTHETIC LOTUS AMPHIDIPOIDS AND L. CORNICULATUS. Can. J. Genet. Cytol. 14: 57-64, 1972.

Meiotic and fertility studies were carried out on 15 different tetraploid hybrids obtained by crossing 11 synthetic amphidiploids with L. corniculatus. The predominance of bivalents in meiocytes of these hybrids indicated that there was a strong tendency for homogametic pairing and that some preferential pairing was taking place between the chromosomes of the diploid species involved in the amphidiploids and L. corniculatus was provided by the presence of multivalent configurations at MI and inversion bridges at AI and AII. The meiotic chromosome behavior in these tetraploid crosses suggests that the most important species in the evolution of L. corniculatus are L. japonicus and L. alpinus. From pollen fertility data, it is considered possible to introduce desirable germplasm from the diploid taxa to the cultivated species by means of amphidiploids.