

A CYTOGENETIC STUDY OF TRISOMY
IN Lotus tenuis WALDST. ET KIT. (FABACEAE)

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Narrowleaf trefoil, Lotus tenuis, is an important pasture legume on heavy-to-low and imperfectly drained soils in the states of New York, Oregon, and California.

The aim of this study is to develop a complete trisomic series in L. tenuis in order to relate characters to specific chromosomes. The establishment of a trisomic series in a diploid species such as L. tenuis ($2n=2x=12$) is a three step procedure. The first step consists of inducing auto-tetraploidy in the species. Then intercrossing between diploid and tetraploid ($2n=4x=24$) plants must be performed in order to obtain triploids ($3x=18$). Finally, triploids must be selfed and backcrossed to diploids to produce primary trisomics ($2x+1$). The first two steps have been successfully performed and the last step is expected to be done during the coming year.