

THE EFFECT OF SELECTED GRASSES ON THE BRANCHING  
PATTERN OF TRIFOLIUM REPENS L. (WHITE CLOVER)

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Trifolium repens is an agronomically important, stoloniferous perennial legume introduced into pastures in most of temperate countries. Two morphologically different genotypes of T. repens plants were allowed to grow into established swards of the grasses, Lolium perenne, Cynosurus cristatus, Holcus lanatus and Agrostis tenuis and also into bare soil as control treatment.

Performance of T. repens plants was estimated in terms of number of nodes, length and dry weight of stolons of different orders of branches and the frequency of branching. The presence of grasses reduced the performance of T. repens plants when compared to the control treatment. Significant differences (P 0.05) were found among experimented grasses and also between the genotypes. The pattern of suppression was H. lanatus A. tenuis C. cristatus L. perenne.

The differences were related to the significant (P 0.05) differences in their sward characteristics, the density of tillers, mean percentage PAR and the red/far-red ratio of the radiation at the base of the canopy. The density of tillers was the highest in the A. tenuis swards. The mean percentage PAR was higher under L. perenne and C. cristatus and the red/far-red ratio of the radiation was higher than under H. lanatus and A. tenuis.

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