



## Forage production and quality from legume-based pastures and leys under low-input management

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Field trials were conducted on a loamy Endocalcari-Epihypogleyic Cambisol in Dotnuva, which were aimed to estimate the contribution of different legumes (white clover, lucerne, red clover) for quality forage production, maintaining soil fertility and productivity of subsequent crops. In first experiment swards of various combinations were used under frequent and less frequent grazing. The species composition of the sward and grazing frequency had a significant effect on sward yield and forage quality. Lucerne/grass and white clover/lucerne/grass swards showed the highest stability during each grazing season. In the 2nd experiment different swards were used for cutting in leys. Lucerne/grass and lucerne/white clover/grass swards were most suitable for three years' use. The N<sub>2</sub> fixation, its transfer to grass and effect on wheat yield was the highest in lucerne-based swards. Lucerne -based swards showed the highest potential DM yield, persistence and CP yield in three-year leys and less variation between years. All legume/grass swards were superior to grasses fertilized with up to 240 kg N ha<sup>-1</sup>.