



Soil organic carbon content and sequestration potential in legume-based pastures

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Grasslands differ markedly in species composition, utilisation purpose, fertilisation and this can significantly change their effect on soil organic carbon content and sequestration potential. The experiment was conducted on a loamy Cambisol with objective to estimate changes in the soil organic carbon content and C:N ratio after pure grass, mixed swards of legumes and grasses at different grazing frequency. The soil under grazed swards was rich in organic carbon. The soil organic carbon content varied little during the experimental period, but had a tendency to increase with increasing of swards age. The C:N ratio slightly depends on the composition of swards. The content of organic carbon negligible increased in the soil under legume/grass swards. A wider C:N ratio, that is useful to characterise carbon sequestration, was identified in the soil under less frequent grazing.