Continuous grazing in comparison to cutting management on an organic meadow in eastern Alps

Starz W., Steinwidder A., Pfister R. and Rohrer H.
Agricultural Research and Education Centre (AREC) Raumberg-Gumpenstein, A-8952 Irdning, Austria

Introduction:
Continuous grazing is an appropriate pasture system for dairy cows in low input milk production systems like organic farming. If a dairy farm converts a pasture-based system, cows will start grazing on a cutting-managed meadow. Due to the utilisation changing from cutting to grazing, a conversion of the botanical composition and the quantity and quality yield is expected. To document and assess such conversions, a three-year field trial was carried out on the organic grassland and dairy farm of the AREC Raumberg-Gumpenstein between 2007 and 2009.

Methods:
Location: Eastern Alps (680 m altitude, 7 °C average temperature, 1000 mm precipitation per year)
Variants: cutting meadow and continuous grazing
Parameters: plant composition, below-ground biomass, above-ground biomass (cutting height 7 cm), crude protein (CP) and net energy (NEL)

Results and conclusions:
Due to grazing, a significant lower coverage of bunch-type growth grasses on the grazing variant was found. Therefore, typical pasture plants covered a significantly greater area on the grazed variant. The below-ground biomass shows no significant difference between grazing and cutting at the three samplings. The harvested above-ground biomass showed a significantly lower yield in the grazing variant, but only in the trial years 2007 and 2008. This is interesting in terms of the CP and NEL yields: both of these quality parameters showed no significant differences between the management.

Continuous grazing can be a suitable system for organic farms in eastern Alpine areas that have more favourable climate conditions.