

Calculation of forage value and suitability for silage of autochthonous plant mixtures found in peat soil grassland in relation to the cut-off date

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Introduction The semi-extensive management of permanent grassland results in autochthonous plant mixtures whose productivity and forage quality dynamics are relatively unknown, but important for its utilisation. There are enormous differences in forage value and the suitability for silage depending on botanical composition, cutting date or grazing date. The time-based changes in the forage value are of economic interest for the farmers and important for determining a utilisation strategy

Material, methods and results The base for the calculation scheme was the classification data for the vegetation stages of 42 autochthonous grasses and herbs found in peat soil grassland (Bockholt & Buske, 1997, 2001) with measured data on growth height and analysis for crude protein, crude fibre, ash, digestibility, energy density, water-soluble carbohydrates, buffer capacity and nitrate content). Information on the cultivated grasses *Lolium perenne* and *Lolium multiflorum* were included. The digestibility and energy density were estimated using the cellulase method described by Friedel (1990). An instrument was created with MS-Excel for the easy assessment of the time-dependent parameters. After alteration of any selection or input data, there is an automatic re-calculation and output in the form of a table and a graph (see Figure 1).

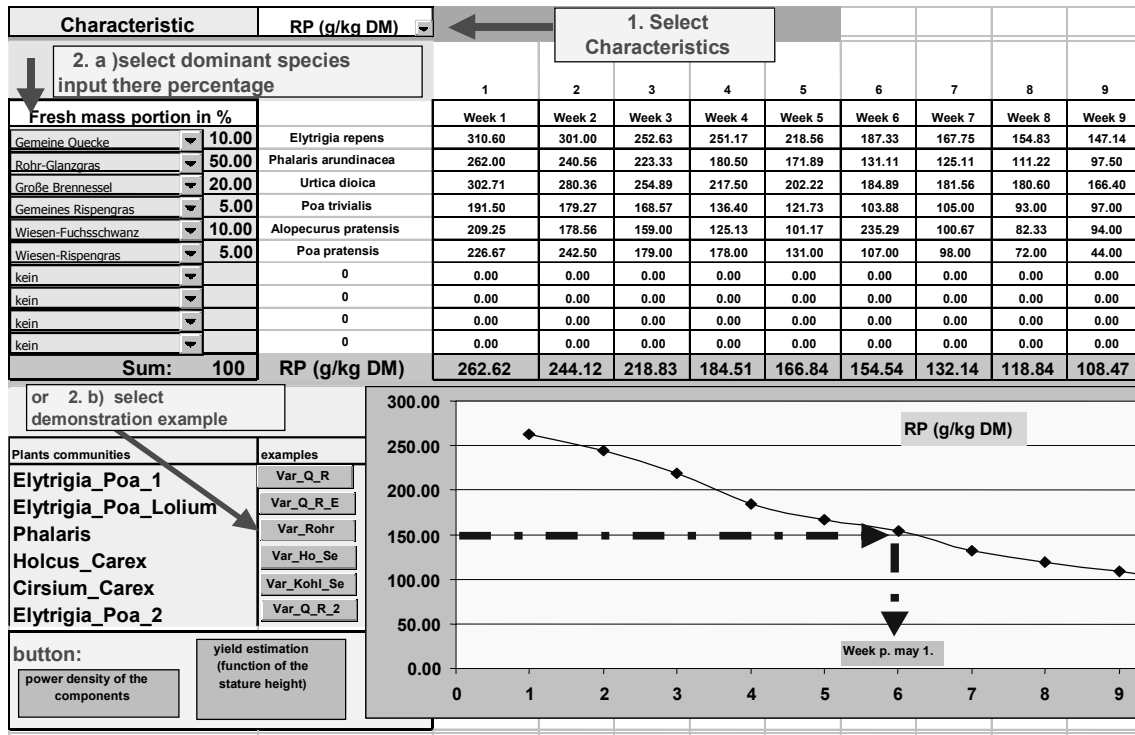


Figure 1 MS-EXCEL-spreadsheet with demonstration data (raw protein)

Conclusions The demonstrated calculation plan provides valuable information to help decision making. It can be extended and updated with data of additional species.

References

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