

Utilisation of grass at the correct stage for horses

Correct utilisation of grass at the right stage is a genuine concern for production optimisation, and pasture quality. Grass used for grazing is the most economical feed for horses, and represents the main part of livestock's feed when they are kept out. To ensure a balance between forage production and nutritional needs of animals with high needs (growing foals, lactating mares), it is important to manage the pasture to optimise its productive capacity without deteriorating it.

Dry matter production (tons of DM/ha) is not constant all year round, there is a peak in spring, and slower production through summer and winter. The quality of the plant, i.e its nutritional value, (energy and protein) is high at the break of dormancy, and diminishes slowly when the plant reaches heading stage.

by **Pauline DOLIGEZ** | 09.05.2016 |

Technical level   



Grass at 12cm © P. Doligez

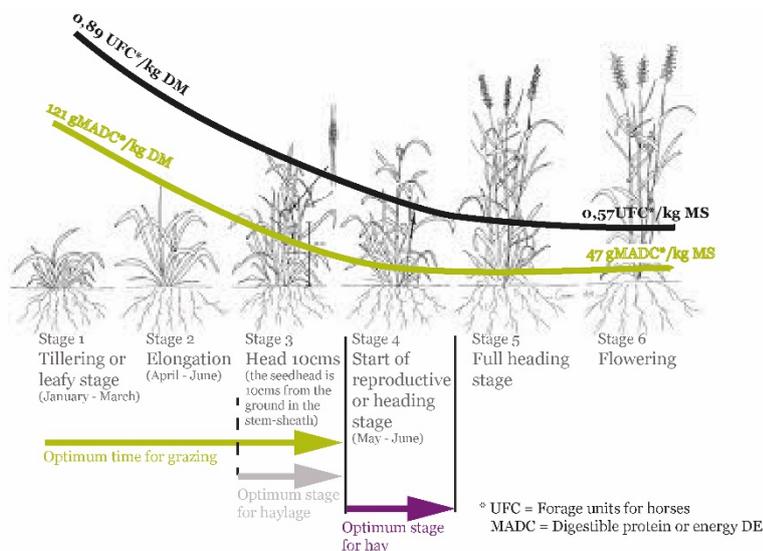
Growth stages and grass cycles

Forage quality (energy and protein) is excellent coming out of winter (leafy stage) up to elongation stage. Then quality decreases quickly when the developing plant reaches seedhead or reproductive stage. At the tillering stage – leafy, the plant is essentially composed of extremely palatable leaves, high in soluble sugar and protein content. In the following growth stages the stems grow longer and get harder (fiber and cellulose content increase) and the nutritional value decreases.

Grass cycles correspond to its utilisation, preceded by growth time, i.e :

- A **growth period** : from the start of growth, following mowing or removal of the animals after grazing, up to the subsequent utilisation period.
- A **utilisation period** for a given plot, either through a grazing period (from the animals starting to graze to when they are removed), or through mowing.

Depending on the climate and the area, between 3 to 8 grass cycles can be utilised per season, though good management of grazing and mowing. If the heads are cut, a new cycle begins. On the other hand, when left to reach seeding heads, growth is halted.



Development stage of grasses (Pocaceae)

Source : from « Fourrages Plus », Martin Rousset 2012, Soltner 1988



Grazing during reproductive stage = misuse © P. Doligez

Why and how to maintain a leafy stage ?

Why maintain a leafy stage in a pasture to optimise growth of the pasture

Maintaining a leafy stage in the pastures ensures a stable homogenous food resource for horses throughout the grazing season.

To improve the quality of the forage, horses should be put out to graze early on, while keeping areas (around half) for mowing. These areas will then be grazed on over the summer.

How ?

Practice of early grazing

Put animals out to graze at the beginning of spring, then remove from the plot and keep it for mowing. Regrowth will be denser, plant growth stages will be delayed, and thus fodder will be of better nutritional quality.

Practice rotational grazing

- **Start grazing** when the grass at the leafy stage has reached a height of **10-12cm** (except for the first grazing period = grass height of 5cms). When the grass is over 15cm high, at the start of a grazing period by horses, it is trampled, flattened, and wasted.
- **Remove the horses** from the plot when the average height reaches **5cm**. The grass should still be green.
- To avoid waste , rotational grazing can be implemented, by dividing a field into several small plots (minimum 4 – 5 plots). In this way, they will be grazed on successively on a rotation basis : 1 week grazing , followed by 3 weeks rest – regrowth for each plot.



Grass at 5cm © P. Doligez



Grass at 12cm © P. Doligez



Grass at 15cm © P. Doligez



Grass at 20cm © P. Doligez

Adapt the grazing load to the grazing conditions

- When the **grass is growing fast** (spring), the grazing load will be high. E.g on average 0,4-0,45 ha/ LSU (approx 1 acre), i.e =approx 0,5 ha (1,25 acres) per mare with her foal.
- In **summer** this load will be decreased, either by increasing the available surface, or by reducing the number of animals. E.g 0,8- 0,9 ha/ LSU (approx 2,2 acres), that is 1 mare and foal to the ha (2,5 acres).

Avoid overgrazing

Avoid overgrazing : areas with grass less then 5cm high. For regrowth of leaves, the plant uses glucose reserves located at the base of the stems and stem-sheaths, and from the underground parts of the plant.

Resting the pasture is required. The rest time is 3 – 4 weeks in the tillering season, and from 4 – 6 weeks in summer and late season.

Manage the roughs

Cutting or shredding early in the season (beginning of June) eliminates uneaten headed plants. This will promote leafy regrowth in rough areas.

Mixed grazing, either alternate or simultaneous, allows for better control of the grass stages, by limiting appearance of rough areas.

Bibliography

- MARTIN-ROSSET W., 2012, Fourrages Plus, Soltner 1988

About our writers

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