

Perennial ryegrass or mixed grass/white clover swards for beef cows

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In areas of Brittany, France, with high rainfall (1000 mm/year), mainly two types of grassland are available for beef cows : either perennial ryegrass, with N supplied by a mineral and (or) an organic form, or mixed grass/clover, without N supply.

In a trial lasting 3 years, from 1992 to 1994, two types of grassland were compared for feeding of Charolais suckling cows and their calves :

- pure ryegrass sward (G), with 100 kg N/ha/year, supplied by pig slurry, in late winter and spring : in this case, for P₂O₅ and K₂O, no other fertilization was used, but that provided by slurry. In order to use a large amount of grassland, the stocking rate was fixed at 0.80-0.82 ha/cow.

- grass/clover sward (GC) : no N, but 60 and 170 kg P₂O₅ and K₂O per ha, respectively. According to the expected yield of GC, an acreage of 0.55-0.57 ha/cow was used. On average in the grazing season, clover content was about 50 %, and up to 60-70 % in early autumn.

For either G and GC systems, silage and hay cut in spring were expected to meet the cows' requirements for the wintering period.

This period was 80 and 110 days long, for G and GC groups, respectively (difference of 15 days between the two groups, at turn-out in spring, and at the end of the grazing period in December).

On average, calvings took place at the beginning of January, and turn-out to grass during the last fortnight of March. The calves were weaned in early October (aged 9 months), without concentrate supplementation during the grazing period.

At weaning, the calves had a liveweight (LW) of 359 kg (males) and 317 kg (females). For both types of swards, the calves' weights at weaning and daily liveweight gains (DLWG) during the grazing season (190 to 200 days) were very similar. Liveweights and fattening scores of cows in the 2 groups were quite comparable at different stages of the grazing period.

Both types of grass, pure grass with pig slurry, or mixed grass/clover, with their particular stocking rates, produce similar results for cows and calves. However, with grass/clover the amount of silage and hay does not exactly meet the cows' requirements for winter feeding.

| Types of sward | Grass | | Grass/Clover | |
|------------------------------------|-------|---------|--------------|---------|
| | Date | LW (kg) | Date | LW (kg) |
| <i>Cows :</i> | | | | |
| Turn-out | 15/3 | 731 | 30/3 | 732 |
| Weaning of calves | 3/10 | 774 | 2/10 | 773 |
| <i>Calves :</i> | | | | |
| Liveweight at weaning (kg) | | 340 | | 335 |
| DLWG (from birth to weaning) (g/d) | | 1075 | | 1060 |
| DLWG (grazing period) (g/d) | | 1115 | | 1120 |