

Grass Growth

- Grass growth rates provides the constant challenge of maintaining grass quality.
- Grass can decrease in quality very quickly as growth rates soar.
- Reduced grass quality , less than 80% digestibility leads to lower milk proteins.
- Lower growth rates leads to inadequate amounts of grass available for grazing.
- Reduced grass amounts for grazing leads to lower intakes and lower milk proteins.
- To optimise milk composition and milk solid production the cows intake needs to be consistent.

Milk Composition

- Milk composition varies with breed , genetic potential within the breed and stage of lactation.
- Cow nutrition influences the ability of the cow to express her milk composition potential.
- The annual cycle of milk composition starts high , reduces in early lactation and increases thereafter.
- Both proteins and fats are high just after calving.
- Both proteins and fats bottom out at around 2 to 3 months into lactation as milk yield peaks.

- Both proteins and fats start to rise again as yield decreases as lactation progresses.
- If total energy intake is reduced at any stage during lactation milk proteins reduce.
- To produce high levels of milk protein herds need to be fed very well.
- Additional dietary protein intake has little effect on milk protein concentration.
- The diet needs to be very low in dietary protein quality and quantity to see a reduction in milk protein.
- Milk fat is influenced by the amount of fibre in the diet.
- Very leafy soft grass can reduce milk fat as the cow does not chew the cud and she gets acidic.
- Chewing the cud boosts saliva production which helps prevent acidosis and reduced diet intake.
- Providing long fibre in the form of hay or straw or baled silage will help milk fat concentration.

Fertility

- Low milk proteins also predict a pending poor fertility season.
- Thin cows with low milk proteins will have reduced fertility.

- If the cows ribs are clearly visible , then it is already too late.
- Fertility is a cycle , the damage was done too months earlier when the restriction was there.
- Cows need to be on a rising plane of nutrition as they head towards the breeding season.
- Bad weather conditions reduce fertility as the energy gap is not filled .