

Milk butterfat content and forage characteristics

Greg Brickner

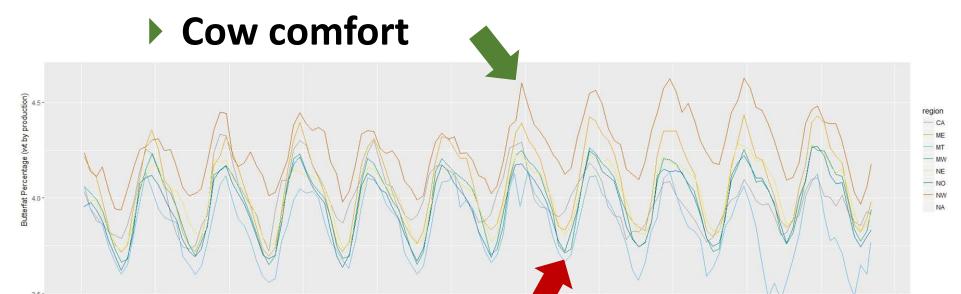
Oct 8th, 2019

Breed choice

Jan 10

Jan 08

Winter rations



Month, year

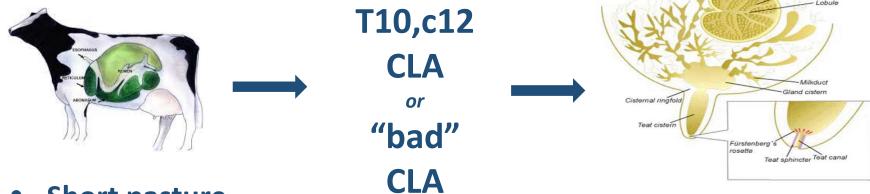
- Pasture quality
- Summer ration
- Heat stress

Jan 12

Breed choice.



Milk fat depression is an active process



- Short pasture
- Excess protein
- Abnormal pH

Milk Fat Depression



Alternative biohydrogenation pathways

Healthy rumen fermentation

CLA (c-9, t-11 C18:2)
"Rumenic acid" A desirable CLA
accounting for 90% of the CLA in milk
and linked to anti-cancer activity.



Vaccinic acid (t-11 C18:1)

Linoleic Acid (C18:2)

Polyunsaturated fatty acid in pasture



CLA (t-10, c-12 C18:2) Undesirable CLA linked to milk fat depression.



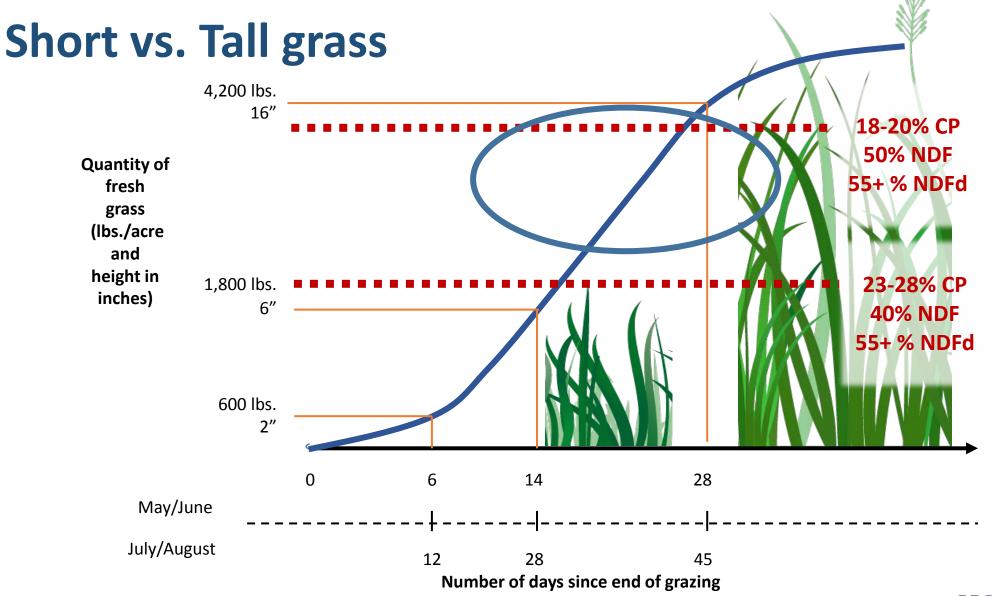
(t-10 C18:1)

Stearic acid (C18:0)

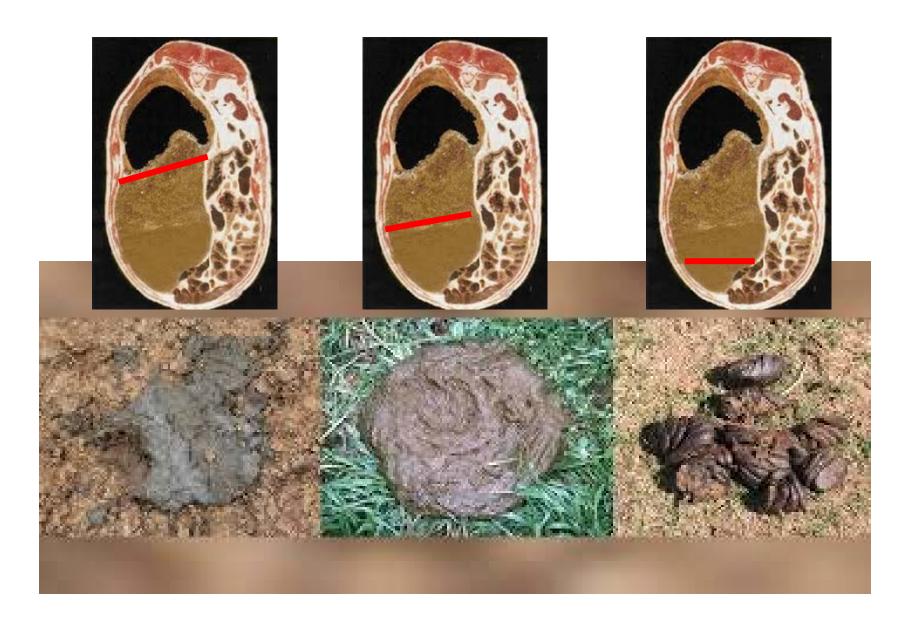
Saturated fatty acid found in milk fat and used for energy by the cow.

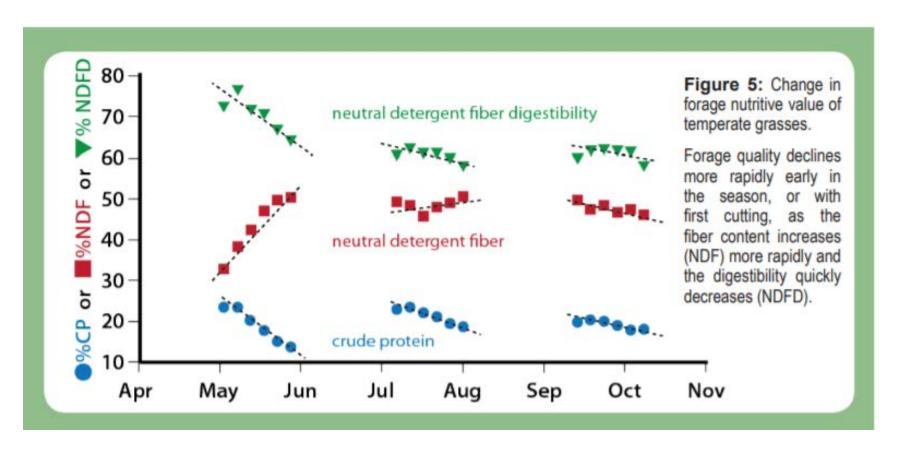












Brink, G. Growing high-quality grasses for dairy rations. USDA-ARS









