DHI报告可揭示的异常状况

Abnormalities with the DHI Report

- ✓ **Prepared by:**
- ✓ **Dr. Terry Hunt BSc. DVM MRCVS**
- ✓ **韩 特 博士**
- ✓ **Dairy Herd Health Specialist**
- ✓ **China – Canada Animal Health Initiative**

- ✓ **王雅春博士翻**
- ✓ **Translated by:**
- ✓ **Dr. Wang Yachun**

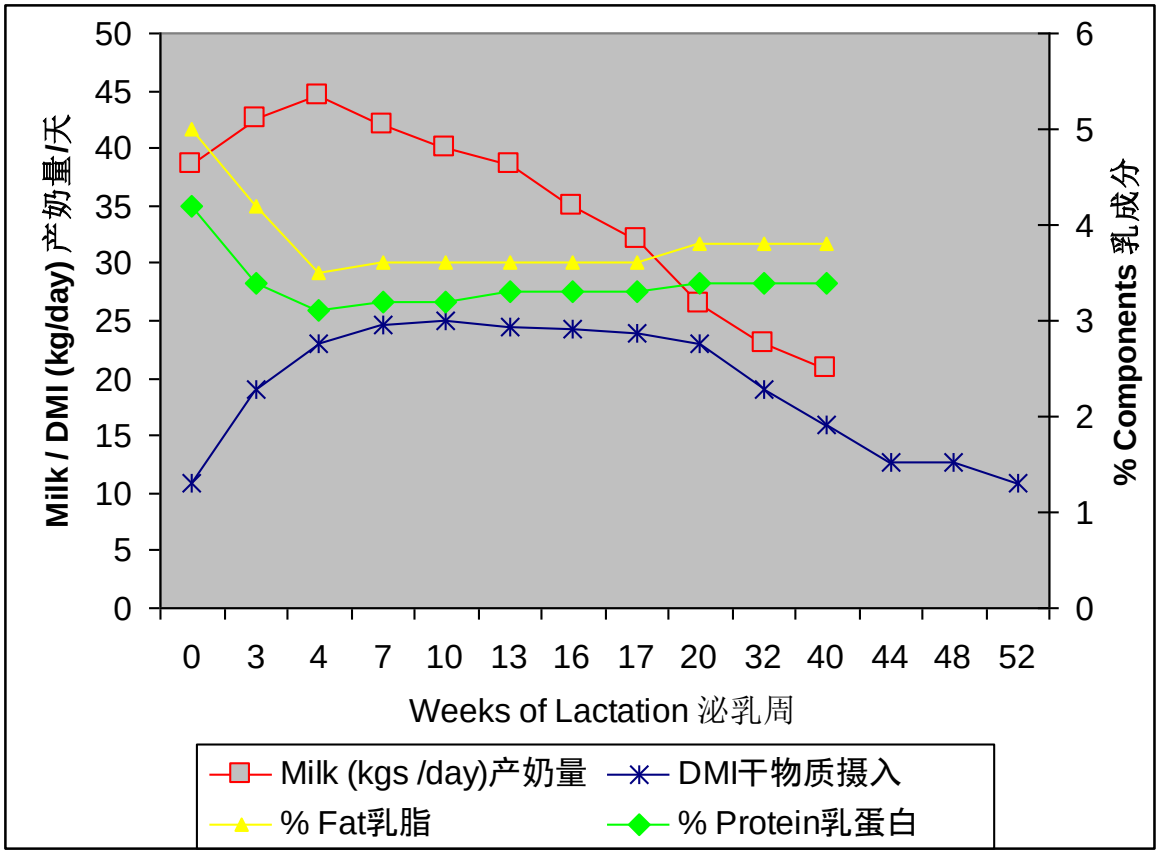
SEMEX

Canadian International Development Agency | Agence canadienne de développement international

Canada

AGRITEAM CANADA

泌乳曲线
Milk Production Curve



泌乳曲线
Milk Production Curve

- 产奶量决定泌乳母牛的营养需要

  Milk production drives nutrient needs for dairy cows

  发生于泌乳期第50到70天的泌乳高峰期，可决定母牛的泌乳曲线

  Peak milk, 50 to 70 DIM, sets the lactation curve for cows

- 头胎牛的产奶量应该可以达到同群经产牛产奶量的75％以上

  1st lactation cow should reach 75% or greater peak milk levels compared to mature herd mates

泌乳曲线
Milk Production Curve

- 在泌乳高峰期如果母牛能多产1千克奶，那么这头母牛整个泌乳期能多产200到250千克牛奶

  For each extra kg of milk at peak, a cow will produce 200 to 225 kg more milk for the entire lactation

- 泌乳期的持久力是以月平均产奶量为基础进行比较的。在好的饲养管理条件下，产奶高峰期过后的月平均奶量仍可达到高峰期月平均产奶量的90-95%

  Persistency of lactation is based on monthly milk yield averages. Under good feeding management conditions persistency will be 90 to 95% on a monthly basis after peak production

泌乳曲线
Milk Production Curve

- 如果泌乳母牛没有出现预期的泌乳高峰，检查饲料的蛋白质情况

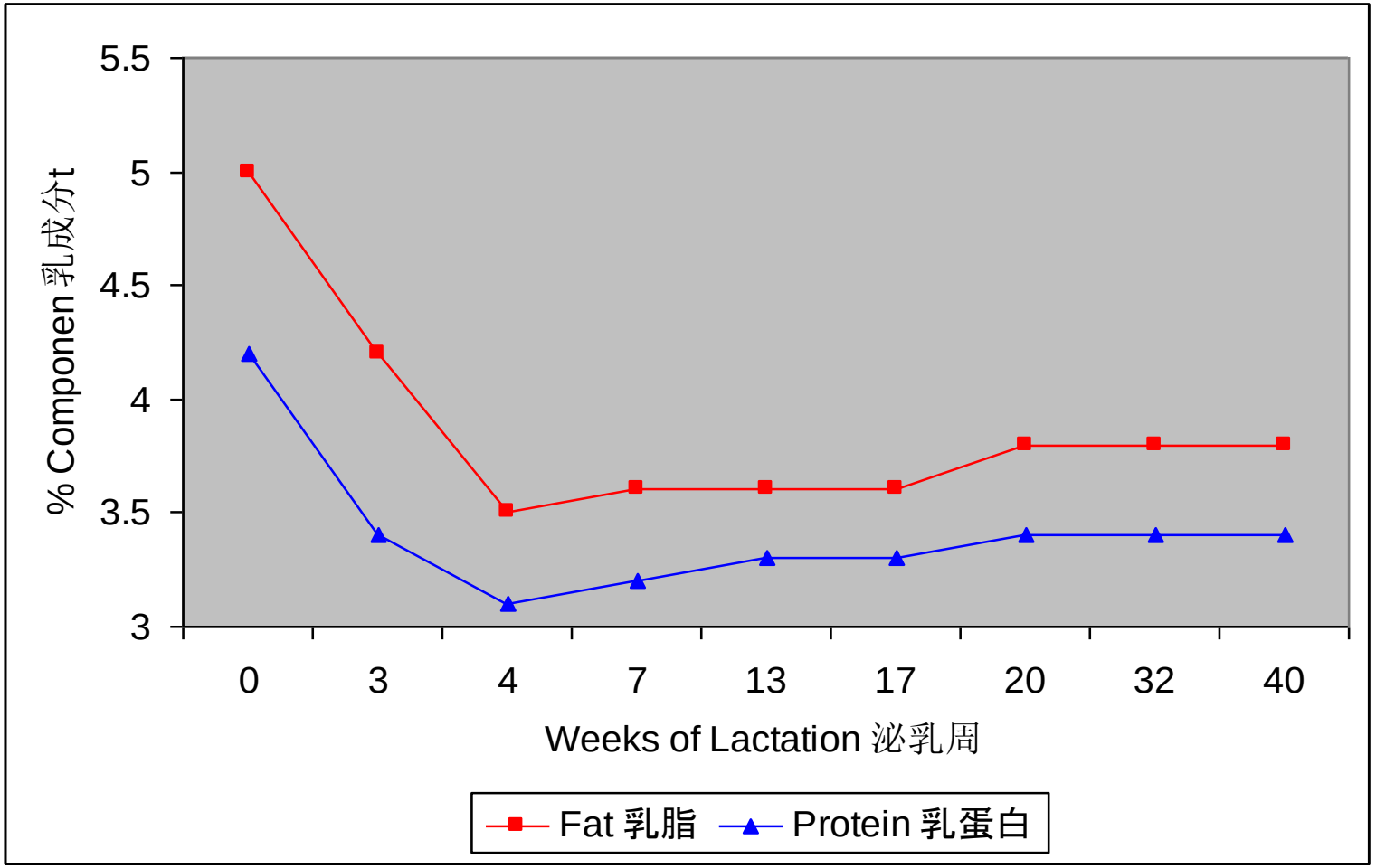
  If cows are not peaking as expected, check protein.

- 如果泌乳母牛出现泌乳高峰但持续时间短，检查饲料的能量情况

  If cows are peaking well but not persistent, check energy.

乳脂和乳蛋白曲线

Milk Fat & Protein Curve



乳脂和乳蛋白曲线

Milk Fat & Protein Curve

- 检查乳成分的测定结果非常重要

  Examining components tests can be useful

- 北美荷斯坦牛的平均乳脂率为3.65%，乳蛋白率为3.15%

  The North American average for Holsteins is 3.65% fat and 3.15% protein

- 如果想通过改善饲料改进乳成分，乳脂率反应最快，乳蛋白率变化很小，乳糖率则很少变化

  When feeding to improve milk components, milk fat will respond the most, protein change much less and lactose hardly will change at all.

乳蛋白:乳脂比值
Milk protein: fat ratio

- 荷斯坦牛和爱尔夏牛的比值一般为**0.85 – 0.88**，庚赛牛和娟姗牛的比值一般为**0.80**

  0.85 – 0.88 for Holsteins and Aryshires and near 0.80 for Guernseys and Jerseys

- 如果经测定乳脂率比乳蛋白率低**0.4%**或更多（如乳脂率**2.7%**，乳蛋白率**3.1%**），可能发生瘤胃酸中毒

  If milk fat test is below milk protein test by 0.4 of a percentage point or more (I.E. 2.7% BF and 3.1% MP), rumen acidosis may be occurring

乳蛋白:乳脂比值
Milk protein: fat ratio

- 如果在泌乳早期乳脂率检测结果偏高，可能意味着母牛正快速分解身体储备的脂肪—检测酮症

  High fat tests in early lactation might mean cows are burning fat reserves at an accelerated rate - check for ketosis

- 如果检测到乳脂率的下降速度比乳蛋白率快，说明瘤胃发酵下降（特别是纤维代谢）

  If fat test is dropping more than protein, rumen fermentation (especially fibre digestion) has been reduced

乳蛋白率低但乳脂率高

Low Protein with high Fat

- 干物质摄入量降低以及微生物合成功能下降，预示可能出现代谢紊乱

Low DMI and depressed microbial synthesis, which may be an indicator of metabolic disorders

乳脂率下降

Depressed Fat

- 饲喂延迟 **Slug feeding**
- 每次饲喂的谷物不足4千克

  No more than 4 kg of grain per feeding
- 缺少缓冲剂

  Lack of buffers
  - 在饲喂精料或青贮1-2小时前先喂了长杆草

    Feed long stem hay 1-2 hours before concentrate or silage

乳脂率下降

Depressed Fat

- 精料磨得过细

  Concentrate ground too finely

- 饲料最少提供了28%中性洗涤纤维和18%酸性洗涤纤维

  Provide a minimum of 28% NDF and 18% ADF

- 粗料与精料之比小于40:60

  Forage: Concentrate < 40:60

乳脂率下降

Depressed Fat

- 粗料颗粒太小（TMR）

  Forage particle size too small (TMR)

  - **10-15%的粗料应长于15厘米**

    10 - 15% of the forage should be > 15 cm

- 粗料干物质含量不稳定

  Fluctuations in forage DM content

- 每星期检测粗料的湿度！

  Moisture test your forages weekly!

乳蛋白率低于3.15%
Milk Protein < 3.15%

- 饲料中可发酵碳水化合物过低（NSC<35%），蛋白合成也随之减少

  Low levels of ration fermentable carbohydrate (NSC<35%), lowers the protein synthesis

- 缺少蛋白和/或氨基酸不平衡

  Protein shortage and/or imbalance of amino acids

乳蛋白率低于3.15%
Milk Protein < 3.15%

- 将脂肪和油脂作为能量来源

  Use of fats and oils as energy sources

- 热应急和/或牛舍通风差

  Heat stress and/or poor barn ventilation

- 干物质摄入量低

  Low DMI levels