

AGRI5710, Module: **Lipid Metabolism in Lactating Ruminants**

Instructor: Dr Alan Fredeen
November, 2009

Objective: A contemporary view of lipid digestion and metabolism. This module focuses on synthesis as well as transformation of dietary fatty acids and their flow to milk in a lactating ruminant. The lab portion will entail analysis of milk for various fatty acids.

Format: One class and one lab per week (depending on schedules and number of students). Readings will be circulated one week before the lecture. Students will make one presentation to class on a topic of mutual interest.

Tentative Topic Outline:

- Lipid chemistry
- Ruminal lipolysis and biohydrogenation of fatty acids
- Metabolism of lipid
- Perturbations in lipid metabolism

Lab assignment:

- Feed and milk analysis.....80%
- Lab proficiency.....20

Presentation

This is a 30 min overview based on rigorous literature review on a topic of interest.

- Quality of presentation
 - Relevance.....25%
 - Objectivity and fairness.....25
 - Completeness.....25
 - Quality.....25

Participation

- Attendance and alertness to class activities

Overall Evaluation:

- Lab assignment.....45%
- Presentation to class45
- Participation.....10

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