Transition Dairy Cow

HOW TO ENSURE SUCCESS
What is Transition?

Transition defined:
- Movement, passage or CHANGE from one position, state, stage, etc. to another.

With this in mind –
WHAT COWS ARE TRANSITION COWS?
What is the Transition Dairy Cow?

- 3 weeks prepartum to 3 weeks postpartum
- Transition from late gestation to early lactation
  Periparturient period

Grummer, 1995
Transition: A Period of Change

- Endocrine status
- Metabolic status
- Nutritional requirements
- Rumen physiology and microflora
Transition: A Period of Change

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Dry Matter Intake – Through Transition

- Nutritional requirements
- Rumen physiology and microflora
- Metabolic status
Metabolism in the Dry Cow: A Chain Reaction

- Endocrine Shift
- Decreased DMI
- Mobilization of adipose
- Increased Blood NEFA
- Increased Fat in Liver
- Ketosis Fatty Liver

NEFA: Non Esterified Fatty Acids
Transition Goals

The periparturient period should adapt the rumen while maintaining normal energy metabolism and mineral metabolism as well as supporting a strong immune function.

Goff and Horst (1997)
PREVENTION IS KING: PRE – partum

- Late Lactation:
  - Body condition
  - Dry cow therapy
- -3wks:
  - Steam up
  - Cow Comfort
- DOC:
  - Dystocia
  - Mastitis
PREVENTION IS KING: POST - partum

- Early Lactation:
  Close monitoring
  Moderate Energy
Records . . . Records . . . Records

“You can’t manage what you don’t measure”
+10 – 14 DIM

“HIGH COW” RATION

CALL THE VET
Through Peek Lack

- First 60dim:
  - BCS
  - Mammary Health

- Diet considerations:
  - High Digestibility
  - Group by parity
Mastitis and Transition Dairy Cows

![Graph showing the occurrence of mastitis (%)](image)

- Occurrence of Mastitis (%)
- Week in Milk
Pitting Edema
KETOSIS

Milk Fever

Clinical Metritis

Retained Placenta

4.3

Abomasal Disorders

Gohn, et al 1989
JDS 72:1876

61,124 Cows
5,661 herds

Udder Edema

Mastitis

5.6

2.4

2.4

3.6

2.4

6.4

1.2

1.6

2.5

2.5

5.7
Reproduction effect
Reproduction effect: Metabolic Imprinting

Garverick et al 96:181
Prediction of Pregnancy

![Graph showing the relationship between serum NEFA on day 3 (μEq/L) and probability of pregnancy.](image-url)
Conclusions

- Prevention is KING
- IF Metabolic Disease occurs
  - Early identification
  - Know when to call the vet
  - RECORD
- Its all related
- Reap the benefits!