

## FEED EFFICIENCY AND HERFD PROFILE

- **Feed Efficiency** = Pounds of milk per pound of dry matter
- Digestive efficiency \_\_\_\_\_ because the relationship between NEL intake and milk production is subjected to diminishing return

## FEED EFFICIENCY

	Herd A	Herd B
Milk lb/day	80	80
DIM lb/d	57	50
<b>Feed Efficiency</b>	1.40	1.6
Milk Income	9.6	9.60
Feed Cost (\$0.07/lb/DM)	3.99	3.50
Income over feed cost	5.61	6.10
<b>Cost of producing 100 lb milk</b>	4.99	4.40

- **General rule:**

- Each 1 lb ↑ in DMI = ~----- lb ↑ in milk
- e.g. \$0.07/lb = \$0.24 income (milk price \$12 cwt)

- **Two wrong assumptions:**

- Feed digestibility is constant (**IT IS NOT!**) → More DMI → ----- digestibility
- All the feed is converted to milk (**IT IS NOT!**)

## Factor affecting Feed Efficiency

- Days in milk (the lower DIM the higher FE)
- BCS (----- BCS indicates higher FE) **caution!**
- Lactation number and Days in milk
  - Lactation 1 has ----- FE (----- units lower)
  - Fresh cows FE should ~----- . Higher FE in fresh cows = losing BCS too fast

## Factor affecting Feed Efficiency

- NDF digestibility (specially above 35%)  
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- ----- ↓ FE
- Excessive temperature and walking distance ↓ FE

Group	DIM	FE (lb milk/lb DM)
All herd	150 - 225	-----
1 st lactation	Peak - 255	1.3 – 1.5
Fresh cows	< 25 days	1.2 – 1.3
Problem herds	150 - 225	-----

## Managing FE

- Have a good idea on actual feed intake and weigh backs
- Test DM of feed at least 3X/month
- Add -----lb milk for every 0.1 % increase in fat% and then adjust DMI  
– e.g. 3.5% vs. 3.8%

## Fresh Cow Evaluation

- High FE (>1.3) for Fresh cows may indicate:
  - Low -----
  - Fast loss of BW and BCS
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## Interpreting the Herd Profile

**ASSUMPTION = NO bST**

## Stage I (first 100 days?)

- **Lower peak milk production:**
  - Short dry period <40 days
  - Too long dry period (over conditioned cows)
  - Bad transition period (specially close up group) → high metabolic disorders incidence
  - High-----
  - Improper BCS early lactation
  - Too many 1<sup>st</sup> lactation animals
  - Lack of-----

## Stage II (mid lactation)

- Milk production on average should be  $\geq 80\%$  of Stage I.
- If NOT, Check these factors:
  - Check the ration for the nutrient content
  - Incidence of late mastitis
  - -----
  - High % Young cows
  - Water Supply

## Stage III (Late lactation)

- Milk production on average should be ~75% of Stage II.
- If NOT, Check these factors
  - Under feeding ad poor ration  
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  - Not drying cows soon enough  
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