Impact of Importing Feed on the System – Management Implications

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Substitution Rate?

Amount of grazable forage displaced by supplemental feeding
MU SW Center Dairy Farm

• Data from March 25-June 22 suggests:
  – Cow intake on grass approximately -23-25# DM
    • 18-28% CP; .65-.80 NEI; NDF 38-48
    • 40-45(current) -66 (peak) #milk/cow/day

  – This forage intake w/ 9# DM grain
Published Research

- Substitution rates of:
  - 1.0# Grain = 0.3 – 0.6 # grazable forage not consumed
  - 1# harvested Forage = 0.7 – 1.2# grazable forage not consumed
Example and Assumptions

• Assume cow can consume 35# DM pasture
• Substitution of 0.5# pasture for 1# grain
• If we feed 10# grain then assume total DM consumption of 40#
  – 10# grain = net loss of 5# pasture = 30# pasture + 10# grain = 40# total

• NET GAIN of 5#/cow/day????
Questions

• Do you account for substitution directly or indirectly in feed budgets and in practice?

• Do you feel there is a net gain in intake?

• What is your “magic” number for supplemental feeding?