Winter Feeding Area Management

For

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Introduction

• When and where cattle are placed on the land is important when considering the environmental health of the landscape.
• No two wintering sites are the same.
• Select the management practices that best suit your land, cattle and budget.
• My/your goals are to assess your impact and find ways to prevent off farm losses. Reduce fertilizer purchases.
Impacts from feeding areas

- Bacteria and Parasites, such as E. coli (O157:H7), Cryptosporidium and Giardia
- Nutrients, nitrogen and phosphorus causing algal growth in surface waters
- Sediment, suspended solids hold nutrients increase cost of water treatment
WV Animal Feeding Operation
What is a Wintering Site?

- An area where cattle are fed during the winter months, sites include
- A feeding area; stored hay and concentrates
- A sheltered area; windbreaks, calf hutch
- A water source; winterized pasture systems
Evaluating a Wintering Site

- Sloped away from surface water
- A water source that is high quality and secure
- Water source acceptable distance from the feeding area so as to reduce contamination
Determining Runoff Risks
Slope

- Flat ground best*, if away from surface water,
- 2-10% slope are most practical in WV
- 10-15% have a greater chance of runoff
- Over 15% high potential for runoff losses
Runoff from a shallow slope

- More cows allowed
- Need elevated area to have well drained bedding area
- Off stream watering desirable
- Adequate buffer zone between 3 parts
Runoff from a steep slope

- More area per cow needed
- Stay back further from water
- Off stream watering is critical
Determining Runoff Risks
continued

- Precipitation/climate
- Soil drainage/type, clay soils manage for runoff, sandy or limestone manage for infiltration
- Vegetative cover, good or poor (EPA)
- Flood Hazard, high or low
Sight Selection Factors

- Elevated area for bedding, well drained soil and stockpiled sod, drainage controlled
- Increase the distance between major manure sources, (feeding and bedding) from the surface stream
- Create a vegetative buffer between the feeding site and water body, harvest buffer so nutrients do not accumulate
Sight Selection Factors

- Move the feeding site frequently during the feeding period. Increase nutrient distribution throughout the farm.
- Alternate sites or fields from winter to winter to minimize nutrient buildup.
- Divert off-site water around the feeding site.
- Use fencing to control the time of use or keep cattle out of sensitive areas.
Management Factors For Winter Feeding Sites

- **Forested Hillside**
- **Diversion Ditch**
- **Berm for containment of field runoff**
- **Buffer**
- **Creek**

**Feeding area, hayfield that slopes gently towards creek. Hay crop utilizes manure.**

**30m (100 ft.) Feeding setback**
WV Winter Feeding Demonstration Site
Winter Feeding Paddock Management

- Feeding period from Jan. – end of April
- Each paddock used for 40 days
- Round bail feeders moved within the paddock
- Paddocks are seeded in April, when conditions allow chain harrow
- Paddocks are harvested for hay once then allowed to recover until cows return
Water Trough with Typar / Gravel Pad
Division Fence between Paddocks
Feeding in the Paddock
Reduce Damage to Sod in the Paddock
Hand Seeding of Feeding Areas
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• Evaluation of Grass Species for quick revegetation
• Dixon Prairie Broome
• Perennial Rye, Quartet
• Marshall Rye
• Japanese Millet
Chain Harrow to Insure Good Seed to Soil Contact
Feeding Area end of April
Edge of Paddock with Shallow Wells and Suction Lysimeters Installed
Fall Growth After July Hay Harvest
Stabilized Crossing or Watering Ramp
Conclusions

- No such thing as a perfect winter feeding site, zero loss is not practical
- Plan placement of winter feeding areas so manure nutrient distribution is maximized
- This talk developed from Alberta Cattle Commission document and EPA 319 funded Feeding Area Demonstration Project
Questions About Winter Feeding Management?