CIDR and Light Management in the Breeding of Ewes

Autumn Converse, Caitlyn Deeter, Taylor Klass, Jaime Uren

Introduction

- There are different methods to manage estrus induction in breeding ewes.
- One management technique is to use progesterone implants, such as Controlled Internal Drug Release (CIDR), inserted intravaginally.
- Another method is to adjust light timing to mimic seasonal patterns (autumn).
- Both methods allow producers to potentially utilize fall lambing in their flock.

CIDR Management Protocol

- Wear gloves when handling the CIDR.7
- Put a lubricant on the CIDR applicator.7
- Insert the CIDR intravaginally.7
- Consult a veterinarian to determine the most appropriate CIDR protocol.
- Breed the ewe shortly after CIDR removal. The ewe should display estrus within 3 days.7
- CIDR management is less successful in maiden ewes than ewes that have lambed before.7
- 20 CIDR inserts cost approximately $130 with the applicator costing approximately $8.7
- If using natural breeding, utilize the ram effect as well. Do not allow ewes to have any contact with rams for 30 days prior to being bred.1
- If the ram to ewe ratio is inadequate (this ratio will vary by breed and operation) or if the rams have health issues, this CIDR protocol alone will not be successful.7

Light Management Protocol

- Beginning in late winter to early spring, expose ewes to artificial light for 16 hr/d for an additional 6-8 wks.6
- 100 lux of light is required during the artificial light period.2
- After 8-12 wks, reduce light exposure to 8 hr/d for an additional 6-8 wks.6
- To avoid flashes of light which upset the ewes’ perception of darkness, darken windows and complete chores only during the light period.2 As shown in the image of the barn (left), all possible sources of incoming light should be blocked during the dark period, especially during daylight hours.
- Only 10 lux of light is required during the dark period.2
- After the 6-8 wk period, ewes will begin to cycle.6
- If housed under the same conditions, rams will show increased scrotal circumference and overall breeding capacity.6

CIDR Management Pros & Cons

Pros
- Excess CIDR inserts can be frozen for use at a later date.9
- Potential to increase the number of lambs born.7
- Increased success in synchronization of the ewe flock allows for predictability in lambing dates.7
- Use may contribute to higher success rates of artificial insemination in ewes.7
- Relatively inexpensive.
- Minimal labor required.10

Cons
- Use of CIDR inserts does not mitigate the effects of stress on fertility or success of the pregnancy.7
- Requires specific disposal procedures.7
- Veterinarians should be consulted before the insertion or use of any intravaginal hormone implants.10
- Time sensitive process.

Light Management Pros & Cons

Pros
- Light management to induce out-of-season breeding does not result in decreased fertility of rams or ewes.2,8
- Fall lambing results in higher market price/head.3
- Most sheep breeds are responsive to light management.2

Cons
- Any ewes that do not become pregnant during the out-of-season breeding will suffer a setback of 8-12 wks in the onset of estrus during the fall.2
- Light management = confinement.
- Sheep cannot be kept on pasture.5
- Light management requires a barn that can be fully closed up to restrict natural light.4
- Expensive.4
- Labor intensive.4

Conclusions

- CIDR management is a practical and effective method for out-of-season breeding.
- Light management is a less practical method due to an increase in overall cost and labor.

Bibliography