

WORKING SESSION

Designing a protocol: What should you do if you are faced with a bighorn sheep die-off?

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At the 12th Northern Wild Sheep and Goat Council symposium held in Whitehorse June 2000, a special workshop devoted to developing a protocol to deal with with a bighorn sheep die-off was conducted. Each panel member reviewed their experience with bighorn die-offs and any actions that were taken during the respective die-offs. A general panel/audience discussion followed.

Needed action items in development of a "Die-off Protocol" were identified.

1. Develop a list of contact people (veterinarians and experienced biologists) for field managers to contact when they are involved with a die-off.
2. Need to review past die-offs and identify those factors involved. Also identify similarities among die-offs, such as:
 - domestic sheep contact
 - identified stress factors
 - habitat factors (especially relating to herd size and range carrying capacity)
 - herd health and lung worm prevalence
3. Develop a standardized response procedure including "dos and don'ts"
 - Give long lasting antibiotics (LA-200 or similar). Do not administer by darting because it hasn't been effective.
 - Medicated feed might work if bighorns are habituated to site; probably will not work for herds not habituated to protein blocks, salt or pelleted feed.
 - Do not capture and pen sick sheep for treatment; results were devastating.
 - Plan on any treatment activity being very expensive.
 - At this time, there is no vaccine available for *Pasturella* infections.
 - Develop a protocol to identify needed blood/tissue samples to be taken during a die-off.
 - If you are contacted for comments on a die-off in another area, be extremely careful about criticizing their response/treatment activities since much is not known about how to treat animals or react to the situation.

4. Need to develop recommendations on preventative activities that should be done to prevent die-offs.

- Prevention of domestic sheep contact.
- Identify options or techniques for treating lungworm.
- Identify what should or should not be considered an interaction/contact between domestic and wild sheep.
- Identify those species known to cause die-offs in wild sheep (domestic sheep, exotic sheep, goats). Identify those species not known to cause die-offs (llamas, horses, cattle).
- Develop guidelines for field managers to use in responding to agencies or individuals wanting to use domestic sheep or goats for weed control or silvicultural practices near wild sheep habitat.

5. Need to develop statement on how to deal with stray wild sheep.

- Oregon: removes strays (rule not policy); catch them if possible but if they might escape they can be killed. Have extended authority to the public to remove the animal, but this authority is seldom used.
- Idaho: removes strays
- New Mexico: removes strays
- Wyoming: removes strays; identified a problem if woolgrowers do not notify the department if strays are observed with domestic sheep.

6. Need to develop an experimental design to test potential treatment activities and measure the effectiveness of each treatment.

7. Need to make suggestions on how to coordinate with woolgrowers and develop mutually beneficial preventative actions.

- How do we open the lines of communication?
- Use the FNAWS brochure as a handout; saturate specific areas