**Upcoming Events**

**Ranch Management & Ag Leadership 2022 Seminar Series**

January 27 — Sheridan
Rangeland Research Partnerships,
4-7 p.m.

February 10 — Riverton
Beef Markets, 4-7 p.m.

February 24 — Casper
Ag Leadership Symposium,
8:30 a.m.-4 p.m.

March 10 — Evanston
Livestock Management, Nutrition, and Health,
4–7 p.m.

April 14 — Laramie
Technology in Ag, 4-7 p.m.

In-person and online options
$25/session or $100/series

For information and registration, visit
www.uwyo.edu/uwag/rmal.

**Pesticide Safety Educational Programs**
February 2 — Hulett

February 16 — Sundance

February 23 — Moorcroft

12:30–4:30 p.m.

Questions? (307) 283-1192

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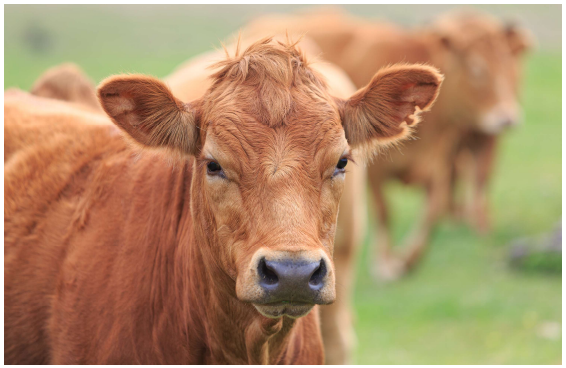
February 2022
Agriculture and Natural Resources
Newsletter

Information in this edition includes:

# Prepping for Calving Season

# Effects of Cattle Consuming Ponderosa Pine Needles



# Prepping for Calving Season

By: Alex Orozco, Extension Educator, Crook County, University of Wyoming

As calving season approaches, it is important to ensure that we are meeting the nutritional requirements of our cows and first-time calving heifers to reduce calving issues. Additionally, it is important that producers have a good calving management plan to reduce the risk of calf losses.

Every year a significant number of calves are lost at birth due to complications during calving. Thinner cows have been shown to have higher rates of calving complications, are prone to calving weaker calves, and take longer to recover. However, cattle that are excessively fat can also have complications as they have increased pelvic fat which decreases the birth canal. Therefore, it is important that cattle are in their ideal body condition score (BCS) range to reduce calving issues due to nutrition. The ideal BCS for cows is 5 and the ideal BCS for heifers is 5.5 to 6. Making sure that our cattle are in their ideal nutritional range is not the only important thing to do before calving.

Ensuring that we have proper facilities, equipment, and that we follow proper calving assistance procedures can also help reduce calf losses. Having supplies such as a thermometer, disinfectant, calf esophageal tube, colostrum, electrolytes, chains/straps/puller, syringes and needles, towel/blankets, etc. during calving season is very beneficial.

Additionally, frequently observing the herd, especially first-time calving heifers, and assisting immediately when needed (wait no longer than 2-3 hours after labor begins) can help reduce calf losses.

When assisting, place the loop of the chain or rope in the proper spot (above the fetlock and place a half hitch knot below the fetlock joint) to avoid breaking a calf leg. If assistance is needed, it is important to remove mucus from the calf's nose and mouth immediately after birth. It is also important to ensure that the calf nurses within an hour after birth or give colostrum to weak calves. If calves have scours, always treat as soon as possible and to give electrolytes to those calves to avoid dehydration.

Providing shelter or dry bedding can help reduce calf losses due to hyperthermia. If you have a calf suffering of minor hyperthermia, try and warm up the calf by rubbing it with a dry towel and moving it to a warm area to raise its body temperature to a normal 102º F, and then feed it warm colostrum.

If you have any questions or immediately need assistance promptly contacting your local vet can also help to reduce calf losses.

Proper calving management is important to reduce the number of calves lost during calving season. Therefore, a good calving management can be economically beneficial.

**Sources and Further Reading on Calving Season Prep**:

Niemeyer, S., Funk. B., 2021. Calving Management and Reducing Calf Losses in Beef Herds. Institute of Agriculture and Natural Resources. University of Nebraska Lincoln Beef. https://beef.unl.edu/beefwatch/2021/calving-management-and-reducing-calf-losses-beef-herds

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# Effects of Cattle Consuming Ponderosa Pine Needles

By: Alex Orozco, Extension Educator, Crook County, University of Wyoming

The Black Hills of eastern Wyoming and western South Dakota have a history of serious abortion problems in cattle related to ponderosa pine (*Pinus ponderosa*). Abortion caused by ingestion of ponderosa pine needles is known to be a major economic problem in the Western U.S. and Western Canada, with losses as high as 50% in some herds. Pregnant cattle who consume ponderosa needles and buds are at risk of abortion and premature birth of calves. Weak calves and retained fetal membranes are often associated with these abortions.

The stage of gestation when pine needles are consumed influences the risk of aborting. Cattle in late gestation (3rd trimester) have been found to be more severely impacted. Additionally, cattle consuming pine needles at 250 days of gestation or later are at risk of calving weak claves who need immediate attention to survive.

Cattle tend to eat more pine needles during cold weather when grazing in ponderosa forested areas. Higher snow depth, reduced amounts of grazable forage, and cold ambient temperatures are contributing factors in consumption of ponderosa pine needles by grazing cattle. Therefore, as cattle enter late gestation and we continue to experience cold temperatures, it is important for producers to take measures to prevent consumption of pine needles.

High-protein diets may increase the risk of these losses. Also, note that losses cannot be decreased by straw, mineral, salt, or bentonite (chemical binder) supplementation. Therefore, the best prevention method is to avoid exposure to any source of pine needles, whether they are fresh, dry, or on fallen trees. This is a challenge for producers as fencing ponderosa pine areas off is not economically feasible and is time consuming. However, it is important to understand the issue and manage for it to avoid economical loss. One solution may be fencing some areas off only to mitigate the risk. Another solution is to plan ahead and avoid grazing these areas when possible. However, this practice may not be feasible for all producers.

**Sources and Further Reading on Cattle Consuming Ponderosa:**

Cogswell, C.A., 1974. Pine needle (Pinus ponderosa) abortive factor and its biological determination. PhD Diss., South Dakota State Univ., Brookings, SD.

Ford, S.P., 2001. Pine Needle Abortion – What We Know As Well As How To Predict/Prevent The Problem. Range Beef Cow Symposium. 81. https://digitalcommons.unl.edu/rangebeefcowsymp/81.

James, L.F., et al. 1989. Pine needle abortion in cattle: a review and report of 1973-1984 research. Cornell Vet. 79:39-52.

Lacey, J.R., James, L.F., Short, R.E., 1988. Ponderosa pine: Economic impact. In: L.F. Jamea, M.H. Ralphs, and D.B. Nielson (eds.) The Ecology and Economic Impact of Poisonous Plants on Livestock Production. pp. 95-118. Westview press, Boulder, CO.

Pfister, J.A., Adams, D.C., 1993. Factors influencing pine needle consumption by grazing cattle during winter. J. Range Manage. 46, 394-398.

Pfister, J.A., Panter, K.E., Garderner, D.A., 1998. Pine needle consumption by cattle during winter in South Dakota. J. Range Manage. 51, 551-556.

Short, R.E., Grings, E.E., MacNeil, M.D., 2001. A model for determining risk of pine needle abortion in cattle calving at different times of the year. Proc. Western Sect. Amer. Soc. Anim. Sci. 52:174-176.

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