

## FIRE RETARDANT IMPACTS TO LIVESTOCK

One of the most effective tools firefighters have to suppress wildfires is a chemical retardant dropped by air support.

Fire retardants contain about 85% water, 10% fertilizer and 5% minor ingredients: colorant (dye), thickener (gum and clay), corrosion inhibitors, stabilizers, surfactants and bactericides. These retardant chemicals have gone through extensive testing for fire control ability and animal and environmental impacts overall they have been determined safe to human health and the environment.



**If your pasture/range has been dowsed with the retardant consider these options:**

1. Check water supply, if any question have water tested by a certified lab.
  - a. Clean out all potentially contaminated water troughs.
  - b. Have ponds, springs and wells tested.
2. Deferred grazing - Keep animals off until the next season and allow the plants to utilize the fertilizer; this will increase plant health and yields in the future. If the grass has been burned give the grass at least one year rest.
3. Allow for a couple of rains to wash off the retardant.
4. If have to graze fields make sure there is **clean water** available. And closely watch animals for signs of sickness. Call your veterinarian if symptoms are noticed.
  - a. Loss of appetite
  - b. Change of habits (wandering more or less throughout the day)
  - c. Staggering or weakness

Potential effects of chemicals on cattle within the fire retardant:

1. Diammonium phosphate (fertilizer) has been used as a non-protein nitrogen source in cattle feeds.
2. There have been cases of accidental overfeeding to cattle that have resulted in a variety of clinical signs such as weakness, labored breathing, salivation, teeth grinding, bloat and convulsions or just found dead. These signs happen within about 30 to 40 minutes of ingestion of too much non-protein nitrogen compounds.
3. Dilution of the NPN source – both in the cattle and on the pasture – will reduce the level of contamination and exposure to grazing cattle. If it has rained, the levels will be lower. Toxicity is directly related to the level of exposure. NPN in feed should not exceed 40% of the total nitrogen requirement.
4. The red color of the flame retardant is iron oxide. This form of iron is not readily available if ingested. Signs of iron toxicity, if too much is ingested that might be retained, are the same as copper deficiency.

Source: Smith, BP. Large Animal Internal Medicine. Mosby. 3<sup>rd</sup> Ed. 2002.

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