

## **Photosensitization of Sheep and Goats from Switchgrass Hay**

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I have had a couple reports of photosensitization of sheep from feeding switchgrass hay. After feeding the hay a week or two, the sheep started exhibiting extreme sensitivity to light and muscle tremors/twitching. The sheep would seek out the darkest locations. Animals may also kick their back legs at their bellies as if shooing away flies. Inflammation and muscle twitching under their skin can sometimes be seen. Most but seldom all of the animals are affected (older animals are least likely to be affected).

Photosensitization often looks like sunburn but is totally unrelated. Photosensitization is sensitivity to sunlight due to accumulation of compounds below the skin. These compounds are activated by sunlight and give off energy, stimulating other compounds which cause irritation in skin.

Switchgrass is known to contain saponins under some circumstances which can cause photosensitization. Usually levels of these compounds are low in switchgrass but levels can be elevated under some environmental conditions and the effects are most pronounced in sheep and goats.

If observing photosensitization, the recommendation is to immediately stop feeding the hay that caused the response and to keep animals out of direct sunlight. Animals should recover in a few weeks (more slowly or rapidly depending on the amount and kind of antiquality compound(s) in the hay).