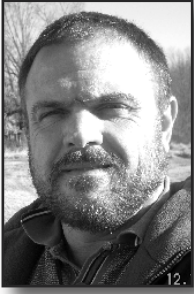


Blister Beetles: Aphrodisiac Or Scourge?

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Blister beetles *Epicauta* Spp. (Coleoptera: Meloidae), also known as oil beetles, are a common pest on many crops throughout the world with more than 300 species in the United States alone. These beetles are of special concern to forage producers since they produce cantharidin.

Cantharidin is toxic to people and animals. It can cause painful irritation and potentially fatal blistering of animal gastrointestinal and urinary tracts. This condition is especially profound in horses. Historically, a ground up mix of dried blister beetles, also known as Spanishfly, was used as a cure for gout, carbuncles, rheumatism and many other medical disorders.

Some less than scrupulous people noticed that women who ingested the mixture experienced extensive swelling of their reproductive organs. From these observations, they thought that Spanishfly was an aphrodisiac. The reality was that these women were slowly dying in agony from the toxins.

Today, the toxic properties of cantharidin are more widely recognized, and its use is largely restricted to veterinarians who employ it as a counter-irritant and blistering agent.

Blister beetles have long (3/4 to 1 1/4 inch), narrow bodies, broad heads and antennae that are about 1/3 the length of the entire body. While most beetles have hard front wing covers (elytra), blister beetle elytra are soft and flexible. Coloration is highly variable; some species are metallic, some are striped, and others are sim-

ply a solid color.

Interesting enough is the fact that while blister beetle adults are pests, their larvae are considered a beneficial insect. This is because the larvae prey on grasshopper eggs while the adults feed on plant tissues.

Male beetles produce the toxin and transfer it to the female when mating occurs. Actual amounts of cantharidin in a beetle are highly variable. There have been reports of a single beetle ingested by a horse causing its demise, to requiring as many as 128 beetles to fatally poison a 1000-pound animal.

Because cantharidin is so toxic to horses, forage that is bound as horse feed is of particular concern. Producers should be aware of techniques for harvesting that will reduce potential exposure.

If your area has a history of blister beetles, use the first and last cutting of hay to feed horses. This works because most blister beetles are still immature during the first harvest and are dead by late September.

Harvest later cuttings of hay while the alfalfa is still in the vegetative stage. Bud/bloom-stage alfalfa typically has more blister beetles.

Scout before cutting. If blister beetles are present, cut hay without crimping or conditioning. Also, give beetles some time to leave windrows before baling.

If blister beetles are present, you can consider using an insecticide. But, make sure you read and follow the label for pre-harvest and other restrictions. Δ

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