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Goats Make "Cents" out of the Scourge of Leafy Spurge

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These days, ranchers all over Montana are searching for the answer to this question: **How do you deal with the scourge of leafy spurge?** Today, this noxious weed covers well over half a million acres of Montana rangeland. Thousands of dollars are literally poured into spurge control every year, yet leafy spurge continues to spread—and spread—and spread. As anyone who has it on their place can tell you, S.P.U.R.G.E. is just another way to spell **big** trouble.

The latex in spurge is a face irritant to cattle and they avoid it. In overgrazed areas, the cattle will eat everything in sight—with the exception of the spurge and any plant growing directly within the spurge patch. Grazing leafy spurge with cattle—or even horses—actually helps the spurge, by removing its competition.

Spurge (a Eurasian plant probably brought to Montana in hay from North Dakota) is not only here to stay, it's here to take over!

Leafy spurge is well suited to its conquest of Montana. It's a hardy plant and none of its natural enemies are native to anywhere in the whole United States. It spreads like a wild fire by means of its extensive and powerful root system, which is covered with small pink buds that sprout into new plants. Most plants will die if you keep their top growth cut back so that they can't photosynthesize. Not leafy spurge! Spurge has the ability to store phenomenal amounts of glucose in its roots and can survive for years on the nutrients stored there alone. A tiny piece of root only half an inch long and a tenth of an inch thick can still grow into a whole new plant.

Leafy spurge also reproduces at run-away rates by seed. A single stalk can produce as many as 140 seeds. They are exploded from their pods up to fifteen feet from

the parent plant and can survive in the soil undamaged for eight years.

One method for leafy spurge control is applying chemical herbicides. The chemical most effective on spurge is Tordon. Minimum control requires half a pound of Tordon mix an acre. That would cost at *least* twenty dollars per acre. For good control it is necessary to use twice that, which costs about 40-45 dollars an acre. If the spurge is sprayed every year it probably won't spread, but if given even half a chance, it will come back as strong as ever. Also, leafy spurge prefers riparian areas where it is dangerous to humans and animals alike to introduce chemicals. In addition, the amount of herbicide necessary to damage a spurge plant can injure grasses, trees and other desirable plants as well. So even though chemicals will control spurge and stop it from spreading, they cost a great deal, and the land that was spurge infested cannot always be reclaimed for grazing.

Another control possibility is severe cultivation. This is not a very feasible option for Montana's ranges, because they are in most cases difficult to plow and leafy spurge's roots are so hardy.

The idea of control with insects (which may soon become a very real possibility) is only in its relatively early stages. It will probably be a number of years before a workable insect spurge control program is available. Until then, we can't afford to bury our heads in the sand. Something must be done—and now.

One possibility is the goat. Goats love leafy spurge. It's true that there isn't a very ready market for goat cheese in Montana; however, there are more goats around than just dairy goats. One that fits the need nicely is the Angora.

Angoras are raised for mohair, a strong type of hair that makes a versatile, shiny yarn. It has many of the qualities of wool, but is less irritating to the skin. It is used for

carpets, some heavy sweaters, and other materials that require strong, fire-resistant, water-resistant fibers.

Angoras are smaller than both dairy goats and sheep. Their thick, curly coats are good protection, and for most of the year, bad weather doesn't bother them. Right after they have been sheared, however, they need shelter from the rain. Because of their heavy coats, Angoras dislike being out in the heat of the day and will seek shade anywhere they can find it.

Angoras are sheared twice a year. The hair gained from the first two clippings is worth approximately six dollars a pound. The next two are worth about four dollars a pound, and from then on the hair's worth about two dollars a pound. The current mohair incentive payments can just about double that.

Adult Angoras are comparable to sheep in both the amount and the worth of the fiber they produce. Goats are good mothers and are fiercely protective of their kids. Although sheep will also eat spurge, goats are more efficient at utilizing the weed.

Most of you know how dramatic fence line contrasts can be, but "creek bank" contrasts, where goats have been turned onto spurge infestations on one side of a creek and not the other, can also tell a clear story. Goats prefer the bracts and flowers, but they will eat the entire plant if they are concentrated on an area where the tops have already been grazed off. They prefer shrubs and forbs to grasses, eating leafy spurge, sagebrush, and other "undesirable" plants and leaving the grass for other stock. This gives the grass a chance to compete with the spurge, and keeps the spurge so busy sending up new

shoots that it is unable to spread either by seed or by expanding its extensive root system. Because goats do leave a lot of grass, they can be grazed with or in a system complementary to cattle. Goats also get along very well with sheep, and they can be grazed together easily and effectively. Angoras are versatile, useful, fun-loving, and frustrating.

Naturally, there are other drawbacks. Goats are more difficult to shear than sheep are because they lack natural oils in their hair and the clippers must be oiled frequently. The warehouses that purchase mohair are in Texas, and if you have kids, they may be difficult to sell. (The best market for goats in Montana is to people who have leafy spurge problems.) Goats *can* be difficult to control. They do respect electric fence (particularly electric netting) however, and with a relatively small amount of portable fence, they can be rotated through a large infestation of spurge. And of course, a lot of people just aren't thrilled with the idea of owning goats. But no one has to just rush out and buy a bunch of goats. Some county weed boards have started programs to control leafy spurge with goats. There are other options as well. Simply looking into these would require neither a great deal of time or money, but we *can't* just sit by and do nothing. The problem *won't* just go away and Montana's ranges are truly in danger. Leafy spurge is spreading out of control and chemicals, plowing, and insect controls are just too costly for many of today's ranchers. Angora goats, with their yearly hair and kid crops, could indeed prove to be the way to make "cents" out of the source of leafy spurge!

Weighted Roller Chopper Re-establishes Root Plowed Turf

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When the settlers of the early 1900's first settled in the West Texas area, mesquite trees were not to be found. Over the years more and more trees have migrated into West Texas from South Texas and Mexico. At first, mesquite trees were a welcomed sight on the bare Rolling

Plains, but now they are becoming a nuisance. Because of their durability, mesquite trees spread rapidly and take over rangelands.

The honey mesquite, *Prosopis glandulosa*, is one kind of mesquite tree in the Legume Family that grows in dry or arid rangelands. The tree can be identified by thorny, crooked, drooping branches, and a round crown. The seeds of honey mesquite may lie dormant in the soil for

Editor's Note: This is the second place paper at the High School Youth Forum Contest from Billings, Montana, Feb. 1989.