

browsing, burning, and mechanical treatment can all be used to reduce the vigor of coppice stands, or to renovate them and keep them in a young and productive stage. Both the timing and degree of the treatment determine the effect. In one study, two periods of heavy goat browsing during the initial period of regrowth stimulated additional regrowth by 4 tropical browse species and prolonged the period when green foliage was available (Hardesty 1986). This treatment reduced total browse production the following year. Perhaps more importantly, this caused high mortality of stumps of several species. Among species considered forage producers, no mortality occurred. Only the species which are not usually considered browse succumbed to this treatment. This suggests that browse species are more tolerant to repeated defoliation, and that defoliation treatments can be used to favor the persistence of browse species in the stand.

Describing the possible advantages of coppicing to improve forage production, does not mean that this response isn't a problem at times. The point is that with our broadened understanding of the role of wood plants on rangelands and the increasing emphasis on brush *management*, this is an ideal time to take a lesson from the foresters, to reconsider coppicing, and to gain better understanding of how we can manipulate this response to further our management goals.

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Taking the Great Animal Crusades Over the Top

Robert H. Schmidt

Animal rights and animal welfare issues receive a great deal of media attention. Although many would argue that this attention is undeserved because only a small minority of people are involved, it is important to realize that animal welfare issues strike a response chord in many people. I firmly believe that these issues will not disappear anytime soon; indeed, the evidence indicates that these organizations are continuing to consolidate their power. This evidence includes newly formed animal care committees on many university campuses, passage of the federal Dole/Brown Bill ("Improved Standards for Laboratory Animals Act"), revisions of the Public Health Service's animal care guidelines, and withdrawal of funding from institutions found in violation of animal care regulations (Holden 1986).

In addition to concerns about the use and welfare of laboratory animals, there is a good amount of attention being focused on the production of animals for food (Mason and Singer 1980, Curtis 1980, CAST 1981, Baker 1983). For example, an injunction forced the USDA to modify their Dairy Termination Program to exclude the provision requiring the hot-iron face branding of dairy cows (Animal Welfare Institute 1986). Specific concerns about farm animal welfare, along with concerns about hunting trapping, and predator

and rodent control, will keep these issues "boiling" in the future.

The Animal Welfare Institute (API), a major animal welfare group based in Sacramento, California, held their annual conference 17-19 October 1986. The theme for the conference was "Taking the Great Animal Crusades Over the Top." In this article I review some of the major points raised during the conference.

The underlying theme for most of the keynote speakers was that animal rights activists need to approach people on a totally rational level and avoid emotional debates. "Arm yourself with the facts," said Donna Ewing of the Illinois Hooved Animal Society. John Livingston, author of *The Fallacy of Wildlife Conservation*, declared that activists should "Never accept the burden of proof; shift the burden of proof to the other side." This is because ugliness, suffering, and beliefs cannot be quantified. Donald E. Doyle, advisor to API on medical science, noted, "If you scratch an intelligent person deep enough, you'll uncover ignorance." This information must reach the general public. Luke Dommer, of the Committee to Abolish Sport Hunting (CASH), reported that "Unless you crack the media, you're wasting your time."

Issues covered during the major presentations included egg production using hens in battery cases, veal production, the trade in primates, project WILD (a wildlife-oriented teaching curriculum designed for grades K through 12), hunting and trapping on national wildlife refuges, the Dairy

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Termination Program, trapping in general, marine mammals (especially pilot whales in the Faroe Islands), hunting in general, philosophical discussions of why animals have rights, contamination of pesticides in the environment, and drugging race horses.

A presentation of special interest was done by Dr. Ted Friend of Texas A&M University. Dr. Friend's research program deals with establishing optimal living conditions for farm animals. His project areas include animal transport, raising of dairy calves, orientation of horses in trailers, bedsores in swine, methods for maintaining pigs during gestation, and how to contain sows during farrowing. The results of his research should be of interest to livestock producers interested in maintaining a healthy stock. Dr. Friend was presented with API's Animal Humanitarian of the Year Award by API president and founder Belton B. Mouras.

I suspect that animal rights and animal welfare organiza-

tions are going to get more sophisticated in their approaches and strategies. The more you know about their philosophy and beliefs, the better you will be able to assess your own operations in light of their concerns.

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Holism & Hydrology

Dick Hart and Pat Reece

On Erin's sod, a tale they tell
Of the flowing fantastic fairy well.
It was uncapped against the wishes
Of the fairies, who turned the folk to fishes
And spread Lough Allen's water wide
Where once was pleasant countryside.

Back to the present; a foreign sage,
Full of the wisdom of the age,
Has come to the land of the arid West
To preach his management scheme's the best
And give his solemn certification
That he can halt desertification.

Just build the fences, rotate the critters.
And persevere, don't be a quitter;
Dry springs will turn to flowing fountains
And lakes appear between the mountains.
Cows that rustled for cheat and bluebunch.
Will have a wildrye and alfalfa to munch.

But things are getting out of hand;
The waters spread across the land.
The basement of one veterinarian
Has become a habitat riparian.
And Salt Lake's waters rise and reach;
Will Temple Square become a beach?

Did management cause the lakes to spread?
Should we tear out the fences or go ahead?
If activity's followed by some concurrence?
Is it cause-and-effect or just concurrence?
Is flooding caused by bovine rotation
Or years of excessive precipitation?

Beware of fairy tales from sages;
Beware "the wisdom of the ages".
Remember the valid management points
Learned at Dad's knee (and other low joints).
Let's use what works to achieve prosperity
And preserve the range for our posterity.

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Old Grass in the Spring

Bob Ross

The days are getting longer,
The sun is shining stronger,
The spring can now be seen,
The grass will soon be green.
The hay is getting low,
It's a terrible tale of woe
Cause, I didn't save some old grass for this spring.

A cow needs a lot of bulk,
Or she'll stand around and sulk.
She'll run from plant to plant,
And still look might gant.
Green grass is mostly juice—
It's a pretty poor excuse
Without a lot of old grass in the spring.

Your worries, though, are over,
Your cows will be in "clover,"
Your grass will green up quicker,
Your cows will give more "liquor."
You may think this is humbug,
But your cows will get the love bug
If you've left a lot of old grass for this spring.

After having had her calf,
A cow needs a ration and a half.
Thirty pounds of "dry"
Puts a glimmer in her eye.
But, a critter bawls herself to sleep
When there's not enough to eat—
This year I'll save some old grass for next spring.

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