

ride the pastures to check the cattle, we also make an all-out effort to spot new sites of knapweed. We never ride together side by side, and we always try to cover a little different route each time.

Surrounding areas contribute to the seed source, be they acreages owned by private individuals, subdividers, ranchers, Fish and Game Dept., Indian tribes or the federal government. We are beginning to feel as though we are under siege, and that it is only a question of time before our efforts are in vain and the range overtaken by the weeds.

Some people hold out the promise of biological weed control, but when you consider the various numbers of weed species that we now have to deal with, plus those that are nearby, the future looks bleak. Each of these weeds must maintain a residue population to sustain the biological agents, so it appears to me that eventually the rangelands will be a mosaic of noxious weeds, each kept from choking out the other by the bio-control agents present. Gone will be the domestic livestock as well as many of the native wildlife

species. Even timber regeneration will be affected as these weeds move into the forested areas.

It is time that it was realized that we have a crisis on our hands. If we are to save our native grasslands, an all-out effort must be started NOW. I am not interested in increasing the production of my ranch. I just want to maintain what I now have, but I can't afford to do it much longer.

Our weed problems are not caused by mis-management of our range. Most of my land is in good to excellent condition. Yearling steer weights off grass are 950 to 1,000 pounds at 17 months of age. Conception rates during a 60-day breeding season average 97%. Tame pastures absorb much of the spring grazing pressure.

It is time for reassessment of range research priorities. We can no longer afford to spend research dollars to discover how to squeeze that last ounce of production from the rangelands. Instead, work must be done to find ways to keep what we have: a productive range that will serve mankind and the rest of the natural ecosystem. ●

Quo Vadis, Quercus?

Harold R. Walt, Dean A. Cromwell, and Kenneth E. Mayer

The Issue

What is hardwood rangeland management? The answer to this question is not simple. The management of hardwoods on rangeland takes on many faces and directions. In California, these interests vary from the Coastal County planner who is concerned with maintaining hardwoods on valuable watersheds important to the economy of his county; to the developer of the foothill community intent on providing scenic homesites; to the fish and game manager who is concerned with maintaining habitat in a productive state for wildlife in perpetuity and, very importantly, to the rancher whose whole purpose in life is to raise and produce red meat and other by-products for California and the nation. These various management goals and objectives have created obvious controversies among the various user and manager groups, especially when regulations are considered. Each constituent, whether you consider them a manager in the truest sense of the word or not, has an interest and a legal voice in how these lands and associated resources are viewed and possibly regulated by government.

The controversy over hardwoods and their management has come to the forefront in California.

Public interest and concern for the hardwood issue has

been building. An editorial in the *Los Angeles Times* (April 29, 1984) exemplifies this concern:

Clearly the time has come for control. The Board of Forestry in Sacramento has the data necessary to write and implement protection.

There is evidence that the valley and blue oak are not regenerating. Guarding their survival, for their own sake and to sustain the state's wildlife, also recognizes the overwhelming evidence that humankind's survival is no isolated phenomenon.

It is not too late for the ranchers themselves to propose an appropriate code. But it is not enough for them simply to resist all regulation on the grounds that most ranchers are following proper procedures. . . .

The *Los Angeles Times* is an influential paper and its message reaches many voters and legislators. Furthermore, the editorial is correct in its assumption that the Board of Forestry (BOF) does have the ability to regulate the harvesting of hardwoods for commercial purposes. Whether this becomes a reality in the near future is hard to determine until more information is provided.

In California, the BOF is the only Governor-appointed Board which is concerned with supply, availability, and production of the forest resource base through time.

The Board is specifically mandated to develop regulations as necessary to help protect and maintain the forest resource base through time. Until recently, the Board has been concerned with private conifer forestland, where the primary owner objective is wood fiber production. The enabling legislation (Forest Practice Act, 1973) does, however, allow the Board jurisdiction over all private lands where commercial

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Coastal hardwood forest.

wood harvesting is occurring—including rangelands where hardwoods grow.

The Building Controversy

The hardwood management controversy in California was brought about by three separate incidents. *First*, the coastal counties of Monterey and Santa Clara were concerned that harvesting of hardwoods would adversely affect the watershed quality as well as hurt the visual quality of their scenic foothills. As a result, they petitioned the Board to classify *Quercus* species as commercial and bring them under the purview of the Forest Practice Act.

Secondly, and about the same time, a timber harvest plan was filed in the western sierra which called for the liquidation of most of the black oak (*Quercus kelloggii*) on nearly 1,000 acres of a critical deer migration corridor. The Department of Fish and Game petitioned the Board and the Director of Forestry to deny the plan.

And *third*, the Board was informed as to the possible resource impacts of biomass fueled power plants planned for establishment throughout the State. Concerned environmentalists were pressing the Board to take a hard look at the possible effects of hardwood harvesting for biomass on forestland as well as land not currently regulated by the Board.

As a result, a Hardwood Task Force (HTF) was commissioned in 1983 to examine the entire hardwood resource and pull together all the available information on hardwoods, analyze the data, and make recommendations.

The Task Force issued a preliminary report in December 1983. The major conclusions were:

1. Lands that grow hardwoods should be split into conifer land and hardwood rangelands to reflect the difference in landowner objectives. This was believed necessary to deal with these lands separately from a public and biological perspective. Ranching, for example, involves many different concerns other than growing wood fiber.
2. Hardwoods should be considered a commercial species on all lands and *some form* of regulation may be



Hardwood fuel wood.

required to protect and maintain the resource.

3. More information is badly needed before strong regulations are developed. The Task Force found little in the range literature which related on-the-ground hardwood management experience to scientifically based studies.

These conclusions seem contradictory as stated. Close examination though, reveals a clear theme: hardwoods are very important to California and there is some evidence of loss or abuse; a form of control is needed regardless of the amount of data available; and finally, range and forestry professionals better get busy and provide critical information before something very serious occurs—something that clearly makes control of hardwoods a *cause celebre* for environmental protection and removes the chance for a carefully considered solution.

The reaction of many range and forest industry groups to the report can be summarized as follows: (1) if it's not broken, don't try to fix it, and (2) how can you regulate something you know so little about? Conversely, public groups were very positive towards state regulation. In particular, one statement in the form of a petition with approximately 50 homeowners' signatures, exemplifies this feeling. The statement read:

El Dorado County has developed and increased greatly in population over the past fifteen years. Along with the increased development we have also had increasing utility bills, which has forced more people to depend on the use of the woodstove as their major heat source.

With the combination of these two increases we have consequently seen the number of HARDWOOD trees diminishing in our county and throughout the State of California.

We are greatly concerned over the impact that the present rate of HARDWOOD harvesting may have on our county's wildlife and over-all environment. In particular the Oaks, as they are used the most for firewood.

The undersigned property owners of El Dorado County strongly recommend that the Board of Forestry inaugurate some type of protection for the HARDWOODS.

Please consider this recommendation and develop regulations for HARDWOODS.

The Next Step

Through the examination of this issue two things have emerged: (1) the Task Force Report has been a catalyst for discussion, and (2) the majority of people have requested that we pursue information first and regulation second. This is a result of two factors: (1) a desire to act based on a clear assessment of the problem; and (2) a hope that the problem will go away or will be lost in the time taken for research. The BOF subscribes to the first—good information—and rejects the second—the problem will not go away, as it will only get worse.

Additional responses have been solicited in three specific areas from university and agricultural interests. These are:

1. Can a thorough and consistent general review of the hardwood resource and its affects on wildlife, watershed, range and conifer-growing be developed and delivered to landowners?
2. Can literature that discusses careful management practices be developed and delivered?
3. And, if the above can occur, will landowners respond by changing practices, where appropriate, in lieu of regulation?

The last request is most difficult. It does not intend to imply that landowners are not wise managers or that there are widespread problems. In fact, most landowners are very sensitive to their resources. What is needed, though, is a clear understanding of whether education and information will increase awareness and help control or reduce any practices that are seriously damaging hardwood, wildlife, or watershed resources.

Needed Information: Three major areas of research have been identified. These are: (1) Hardwood Supply, (2) Hardwood Demand, and (3) Hardwood Ecology. It is clear that more information is required on the standing biomass of hardwoods especially *Quercus* spp., more on the relationship between hardwood canopy, forage production, and nutrient cycling. More must be known about the success or failure of oak regeneration; if they are not regenerating—

why not, or how can recruitment be encouraged? The effects of deer and cattle browsing on seedling survival must be better understood. More information is needed on oak stand age structure. The list is endless. Management information and research on the hardwood resource must be given the highest priority. In an era of rapid social and technological change, we must learn to anticipate. The status quo does not last long enough to give us meaningful standards of action. Finally, we must be very aware that the issue is not a livestock-vs-deer, or landowner's rights issue, but is much more broad. The Development Review Manager of San Mateo County points this out in a letter to the BOF in 1983:

The Task Force puts its hands in its pockets to look at what the costs are and appeared to look at critical wildlife with blinders, being concerned with those areas that are key migration corridors, holding areas, wintering ranges for migrating deer—why the narrow focus? What of the myriad of birds and mammals directly or indirectly dependent upon oaks, tanoak, and other hardwood species? We should consider requirements to protect vegetation, all wildlife, air quality, water quality, as well as soils. With the addition and increase in intensity of hardwood harvesting, the County may have much to lose unless proper controls are instituted.

Conclusion

Concern over hardwoods is here to stay. The issue is in its relative infancy, but the expanding population of California and the nation indicates that the issue will mature into a very heated battle unless the problem is managed now. This can be done by being sensitive to the concerns of the range industry, landowners, and the public. Obviously the job would be easier if more reliable information were provided; this could circumvent a possible run-a-way crisis. One of our most limited resources is land. People will always try to tell you what you should do with your land. But when too many people are telling you, that creates a serious problem.

Let us look ahead for a change and a bright future. We must be unified and work together to focus and deal with these issues now—not later. ●

Scientists, Artists Will Integrate Works to Preserve Wilderness

Integrating the work of more than 500 artists, conservationists, policy makers and scientists to enhance wilderness preservation is the goal of a Colorado State University conference and art show, July 23-28.

"Learning to Preserve" is the theme of the National Wilderness Research Conference and Wilderness Art Exhibit and Sale, which will be held at CSU and in the University Park Holiday Inn, Fort Collins.

Acclaimed scientists will give "state of the knowledge" presentations that address the conference theme, said Glenn

Haas, conference coordinator and CSU wilderness resource specialist.

"While researchers help assure wilderness preservation, artists heighten social awareness of and appreciation for our wilderness heritage," he said.

Conference sponsors are the National Park Service, Forest Service, Fish and Wildlife Service, Bureau of Land Management, Oregon State University, AWA and CSU. Art exhibit sponsors are the Adolph Coors Co. and anonymous donor.