

Managing Deer on Private Land

range liability converted to asset by plan of dual stocking and harvesting the game crop by a system of permit hunting

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Deer damage to agricultural crops has been reported in 53 of California's 58 counties, where the deer often compete with livestock for forage and, in some cases, carry parasites and diseases that can affect domestic livestock.

The annual increase in the deer population normally amounts to 20% to 30% of the herd. Hunters usually take no more than 5% to 7% of the deer from any given area and, in many cases, less than 1%. Less than 20% of the hunters bag deer. Therefore, buck hunting—as practiced in California since 1883—exercises little control on the total number of the state's deer herd.

Of the total land area of California—some 100,354,000 acres—approximately 57,512,000 acres are inhabited by deer in varying population densities. A conservative estimate made in 1947 placed the number of deer in the state at 1,123,000 head. Thousands of deer perished during the severe winters of 1948-49 and 1951-52, but recent years have been so favorable that present deer numbers are probably well above the 1947 estimate. The deer harvest in 1954 was 60% greater than in 1947, but only about a 30% increase in the sale of deer tags.

The basis for the 1947 estimate was a determination of the probable number of deer left on the range for each buck reported taken. At that time the ratio was considered to be about 24 deer remaining for each buck killed. If that same ratio—1:24—held true for 1954—when 395,000 hunters took 75,000 deer—the deer herd in the state very likely approached 1,800,000 head at that time.

Deer are probably found on over 20 million of the approximately 52,054,000 acres of the state—exclusive of urban and industrial holdings—under private ownership. The number of hunters in the state is increasing—as a result of the upsurge in the general population—but the available hunting area has been decreasing. More and more private lands have been posted against trespass because the increase of hunters has had an attendant increase in damage and disturbance of private property by the irresponsible minority.

The cost and trouble of erecting and maintaining deer-proof fences can be justified by most ranchers only in cases of limited areas of high value crops. Effective fences—preferably of mesh wire—should be at least 7' high on level

ground and higher wherever deer can take advantage of the contour of the land. The cost of materials alone for an effective fence is in excess of \$1,000 per mile.

Chemical sprays to repel deer have been used with some success on certain crops, but they have disadvantages. They are fairly expensive and are not applicable to forage crops destined for livestock consumption. Repellants are most useful on orchards or vineyards, but repeated applications are necessary to protect new growth in the spring and to replace material washed off by rains.

Under the California law any owner or tenant of property that is being damaged or is in danger of being damaged by deer may apply to the Fish and Game Commission for a permit to kill the offending animals. In cases where only a small number of deer are involved, their removal can be accomplished practically, but if deer numbers are high this sort of control is not efficient and is difficult and time consuming for individual landowners because new deer continually move in to replace those that have been killed.

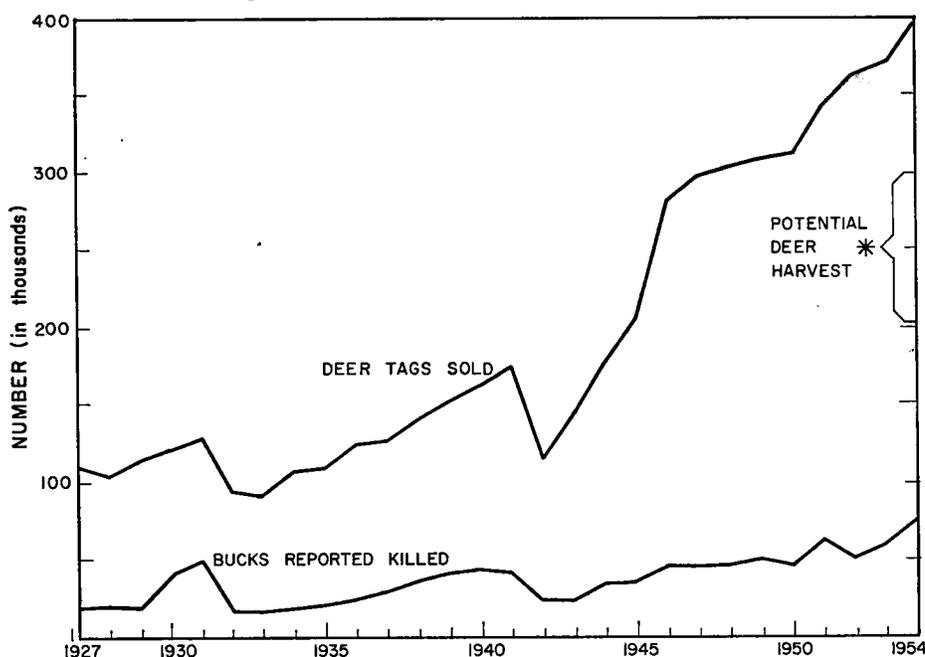
Studies of feeding habits show that all types of range forage can be utilized more efficiently by dual stocking with livestock and deer than with livestock alone. Livestock eat mostly grass and herbaceous vegetation while deer are primarily dependent on browse. Seasonally, however, livestock may take considerable browse and deer a considerable amount of grass and herbaceous plants. Therefore, if a system of dual use is to be profitable, there must be a well conceived plan of management.

Management plans—tailored to meet local conditions—should make provision for the harvest of the game crop and should reduce conflicts between wildlife species and agricultural operations. Furthermore, the planned program should include habitat improvement, such as brush manipulation and range reseeding, to achieve maximum efficiency.

Generally, the best control of deer can be achieved through some system of hunting by sportsmen.

One of the most satisfactory methods for the control of deer is for the landowner to allow hunters access to his

Number of deer tags sold in California and number of bucks reported taken.



* Estimated for California if deer were taken at the same rate as in Colorado and Utah.

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DEER

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property under written permit. Actually, state law requires a written permit to hunt on cultivated, fenced, or posted land. Under the range permit plan the hunter assumes responsibility for his actions while on the property. Many landowners have found it desirable to place a charge on this access privilege. Game animals are public property administered by the State Department of Fish and Game, and a landowner can make a charge for taking game animals only if he possesses a commercial hunting club license, but he can—without such a license—charge for access privileges or other facilities provided.

For sportsmen who object to paying for hunting privileges there are the national forests and public domain lands which include over 30 million acres of some of the best deer range in the state. However, fees charged for good hunting on private land will usually be less expensive than the cost of traveling greater distances in search of deer on public lands.

The primary areas of California where deer management on private lands would be applicable are the coast ranges from Humboldt County south through San Diego County and along the lower foothills of the Sierra Nevada bordering the Sacramento and San Joaquin Valleys. Many areas, particularly in parts of the inner coast ranges, support deer population densities of 20 to 50 per square mile and some areas are in excess of 100 head per square mile. Some ranchers in those areas have been leasing their lands for deer hunting, but only a few operate under a management plan or practice regular habitat improvement although range improvement for deer is usually of equal benefit to livestock.

The commonest arrangement of distributing hunting rights is for the landowner to lease his property to a self-formed group of hunters on a seasonal basis. Usually, in the better deer areas, the lease is for a flat fee of from \$25 to \$100 per hunter per season or from 10¢ to 50¢ per acre. Often the hunters take out public liability and property damage insurance and the landowner should take out such insurance protection. Lessees frequently agree to post the property and patrol it against trespass hunting. Under this system the rancher has a minimum of administration and the hunters have truly exclusive hunting. The chief disadvantage—from the landowner's point of view—is that there are seldom enough hunters involved to adequately harvest the available deer crop.

Another plan is followed by a few landowners who take in hunters on a daily or week-end basis at charges that

generally average between \$5 and \$10 per day. Under this system, more hunters per unit area are admitted and the owner is able to obtain considerably higher gross returns, but necessarily there is more administration involved.

A third variation of the plan is found in a few instances where ranchers lease their property to concessionaires or middlemen who in turn retail the hunting rights. This system relieves the rancher of all administrative details. Leases may be on a flat fee basis or on a percentage of the gross or net revenue.

A considerable number of properties are owned by individuals or groups primarily for hunting. Livestock and other ranching operations—if any—are of secondary importance.

The behavior of hunters using private lands under permit has been good. Common abuses associated with trespass hunting virtually disappear when permit-carrying hunters realize they must bear responsibility for their actions.

For the past two seasons a system of daily permit hunting has been in effect at the Hopland Field Station—in Mendocino County—as a cooperative venture with the Department of Fish and Game whose personnel posted the 5,000 acres of rangeland on the Station, distributed hunting permits, and checked hunters in and out.

This system has been used with considerable success on pheasant and a few quail areas during the past several years, but the trial at Hopland was the first attempt on deer. Nearly 300 deer hunters were accommodated in 1954 and slightly over 400 in 1955. There was no undue disturbance of property or livestock even though hunters with dogs were permitted to use pastures where sheep were grazing.

California hunters have been slow to accept the fundamental principle of deer management advocated by wildlife technicians which holds that deer populations should be controlled through hunting both sexes. It is only through such control of numbers that stocking rates can be kept within range carrying capacities and in balance with other land uses. Moreover, where surplus deer are removed by hunting, the remainder, because of lessened competition for forage, are in better health, grow larger, and are more productive. Either-sex hunting should be incorporated in management plans for private lands. Unfortunately either-sex hunting in California, because of public resistance, has been thus far confined to closely controlled special hunts on a few limited areas. However, the Fish and Game Commission has the authority to permit the take of both sexes of deer wherever desirable and has been attempting to do so as rapidly as public acceptance permits.

The graph on page 4 indicates the potential deer harvest in California if deer were taken at the same rate as in other nearby western states. Many of those states are harvesting nearly 30% of their herds annually in an attempt to remove as many deer as are being produced.

A program of deer management for private land—tailored to local conditions—should do much toward making the full potential of deer production available and reduce the possibility of deer starvation in severe winters. Sportsmen would have a larger crop to harvest and landowners would receive a much fairer return for the deer they support.

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BEEF

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the grade because it had more fat than the other piece. Two-thirds of those who mentioned fat said they selected the steak or roast because it was better marbled with fat. The color of the U. S. Choice grade was preferred by 12% of the shoppers. Better texture, less bone, and miscellaneous reasons accounted for the remainder of the reasons given for selecting the U. S. Choice grade.

Because there was considerable fat on both grades of the steaks and roasts, the buyers were asked what they did with the fat when they bought such cuts of beef. Only 9% said they ate all the fat and one-fourth said they ate some of it. Of those interviewed 41% said that they trimmed away the fat on steaks before cooking, and 36% said they did the same on roasts. About 36% trimmed the steaks and 41% trimmed the roasts after cooking and about 15% trimmed the meat both before and after cooking.

About three-fourths of the buyers who said they did not eat all the fat added that they did not use it at all. About three-fourths of those who used the fat which was not eaten—about one-sixth of all the buyers—used some of it in food preparation, for flavoring, for shortening, and the like. The other fourth—about 6% of the total buyers—used some of it for feeding birds and pets. A few persons even said they used it for making soap.

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