Incorporating Wildlife into Your Operation

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How many enterprises do you have working for you on your ranch or farm? One way to be successful in ranching or farming is to operate as many profitable enterprises as possible. Most ranchers and farmers focus on cattle and crop enterprises. Additionally, most farmers and ranchers have not considered wildlife or outdoor recreation as a viable economic enterprise. There are many people in our cities and towns who will pay for the opportunity to recreate on private, rural lands.

In some situations, opening your gates to the public for recreational privileges can be profitable. It may pay handsome dividends to determine if your ranch or farm falls into the right situation. Things to consider include: family approval, willingness to deal with the public, size of property, location of property, liability, habitat quantity and quality, game species available, and type of lease, i.e., daily, seasonal (by species or time of year) or year-round. The possibility of non-consumptive recreational uses such as camping, hiking, trail rides, cattle drives, photography, etc. should also be considered.

The only limitation to the activities available on your ranch or farm is your own imagination. Marketing and demand limit income from recreational leases. When advertising, it is essential to target a specific audience that has interests in your farm or ranch's specific resources. Knowing where to advertise your recreational activity is often difficult, especially for the rancher or farmer who has not had much time for recreation and is "out of touch with the recreational lifestyle." However, for a fee, there are several outdoor publications and web sites that will advertise recreational activities. Demand often varies from location to location. Typically, demand is best if your ranch or farm is near a major metropolitan area. Demand may also vary depending on the type and duration of activity offered. As with most enterprises, marketing and demand may be difficult obstacles to overcome.

Incorporating a recreational enterprise on your farm or ranch may require change in your operation's management practice. This change may mean altering brush and weed (forb) control methods. It may also mean developing and maintaining campsites or selling part of the good cows and replacing them with old, gentle ones that the "city dudes" can herd. Whatever activity you offer, some sort of change in management should be expected.

The following is a description of a year-round recreational lease that I have been involved with since 1993. The lease was set up to demonstrate management techniques and income potential to area ranchers and farmers.

Noble Foundation Coffey Ranch Wildlife Management and Hunting Lease

The Coffey Ranch, located five miles west of Marietta, Oklahoma, is managed by the Noble Foundation for wildlife habitat and livestock production by attempting to influence ecology toward desired goals. This management is conducted throughout the entire ranch. Specifically, wildlife habitat management is coupled with grazing management. Unlike many ranch managers, we feel that efficient management requires consideration of both wildlife and livestock in

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each decision.

Diversity, forbs, timber, brush, and good water quality are important to wildlife, livestock, and the ecology of the ranch as a whole. Land management practices that would sacrifice these values over large portions of the ranch are avoided. Many landowners are interested in wildlife and like to have wildlife on their ranch, but make land management decisions without considering wildlife. Since wildlife goals are considered in each land management decision, the Coffey Ranch supports adequate populations of both game and non-game wildlife species without the expense of intensive habitat management practices such as food plots, feeders, and woody plantings.

Wildlife habitat is managed primarily through livestock impacts, rest periods, and prescribed burning. Livestock impacts are identified as stock density and rotational stocking. We have found the combination of stock density and rotational stocking to be an excellent tool for habitat manipulation. For example, high stock density can be used to severely graze (<3 inch forage stubble height) a paddock during late fall to improve quail habitat by creating an abundance of forbs the following year. If an increase in diversity in the herbaceous component of a certain paddock is desired, high stock density can be used to create a significant disturbance to the soil surface that, in turn, may increase the diversity of that paddock. High stock density may also be used to discourage brush encroachment and to create openings within thick stands of brush. This enables a variety of plants to express themselves.

Rest from grazing is also used to enhance wildlife habitat. The definition of rest is to leave an area of grazing land unharvested, or ungrazed, for a specific time, such as a year, a growing season, or a specified period required within a particular management scheme. Rest enables wildlife to utilize portions of the ranch at different times of the year without livestock confrontation. Prolonged rest can be used to encourage woody plant growth where it may be needed for food and/or cover for wildlife.

Prescribed burning can also change plant composition toward our management objectives by creating and maintaining openings in timbered areas. Fire is also used in combination with livestock impacts, and to a certain extent rest, to help us reach our habitat goals. Livestock impacts, rest, and fire are the primary tools used on the Coffey Ranch. Each is used in accordance with our understanding of ecology to modify the landscape toward our wildlife and livestock goals.

In addition to general land management for wildlife habitat, we also manage game harvests to maintain or develop desirable game population parameters. State and federal game laws adequately conserve populations of most species. However, prevailing harvest practices may negatively affect white-tailed deer, turkey, and largemouth bass populations. Deer and turkey populations are also influenced by hunting and harvest pressure on surrounding properties. Thus, annual harvest quotas more restrictive than state law for white-tailed deer, turkey, and largemouth bass have been established.

Wildlife populations fluctuate each year due to a variety of positive or negative influences. Through monitoring activities on the ranch, we are able to recognize some of these influences and assess their effects on wildlife. However, some influences remain unknown and make wildlife management a real challenge. We establish harvest quotas annually by monitoring populations of deer, turkey and fish with several techniques.

It is our goal to maintain deer numbers at, or slightly below, carrying capacity. Spotlight surveys, daylight cruise surveys, and detailed harvest records are used to monitor progress toward these goals. Spotlight surveys and daylight cruise surveys are conducted in

September and early October. Data collected on the spotlight surveys include number of mature and immature bucks, number of does and fawns, and number of unidentified deer. Visibility estimates are also recorded to obtain an estimate of the number of acres observed along the route. Deer sightings are recorded by location in order to indicate areas of deer concentration. Daylight cruise surveys are useful in providing data during a different activity period. Daylight data provide better estimates of age and sex than spotlight surveys. These data are then combined with spotlight survey data to determine harvest quotas for the upcoming season. Data on harvest records are compiled during the hunting season. This information is used in conjunction with spotlight and daylight cruise data to estimate white-tailed deer population parameters. Harvest data include age, sex, weight, and antler measurements.

Fall and winter flock counts and detailed harvest records have been used to monitor wild turkey populations. Data collected include total numbers, location, number of mature and juvenile toms and number of hens. Spring and summer surveys record the number of mature and juvenile hens, location of sightings, and harvest records. However, spring and summer data are incidental and are not always used to establish harvest quotas.

Seine samples and catch and harvest records are used to monitor fish populations in eighteen ponds at the Coffey Ranch. Ponds vary in size; therefore, use and production potential differ. Seine sampling is done in the summer and provides data on fish species, sizes, and numbers. Catch and harvest records accurately estimate how many of each species are removed from a given pond. All of this information is vital for future management of the ponds.

During the initial management phase of the Coffey Ranch, methods were established to pursue economic returns from the wildlife and fish. For a short time during 1987, a recreational lease was advertised in two local newspapers, *The Daily Ardmoreite* and *Marietta Monitor,* and one statewide sportsman's newspaper, *Outdoor News*. Seventeen groups inquired about the lease. Several groups toured the property and five offered bids. The high bid was $1.25/acre/year (about $3,200), from a local group of 11 sportsmen. Essentially the same group leases the property today, but there have been some changes in lease members and price.

The value of the lease has appreciated since 1987. Therefore, in 1996 we proposed increasing the lease price from $1.25 to $2.50 per acre. Many comparable leases go for $3.00 per acre or more, with many leases charging more depending on the extra frills offered.

Additionally, in 1992 the Coffey Ranch was enrolled in the Deer Management Assistance Program (DMAP) with the Oklahoma Department of Wildlife Conservation. This program allows landowners or managers with more than 1,000 acres to harvest additional antlerless deer. As our deer herd grew, the ability to harvest antlerless deer was becoming more important to keep the deer population within our targeted size. Allowing the deer herd to grow beyond carrying capacity is in direct conflict with our goals. There is a $100 fee for enrollment in the DMAP program.

In the spring of 1996, we met with our lease hunters and presented the following plan:

Step 1: Increase the lease price from $1.25 to $1.75 per acre in 1996 and to $2.50 per acre in 1997.

Step 2: Establish three accessible food plots consisting of wheat and oats to be established annually. This will provide hunters and their guests "hot spots" in which to hunt and should result in increased antlerless harvest.

Step 3: The ranch will purchase and maintain two tripod deer stands on two of the food plots. A third may be purchased, depending

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on antlerless harvest success.

These steps accomplished several things. The graduated lease price increase was easier for the hunters to accept. The hunters, during previous meetings, had expressed their concern with having a guest foul up their favorite stand location by harvesting an antlerless deer. Food plots, with factory-made tripod deer stands, allow the hunters more freedom to bring guests to harvest antlerless deer. Hopefully, this will increase antlerless harvest effort in coming years.

The leasees are required to complete a form each time they use the property. They are very cooperative in doing this because they realize the importance of this data in helping meet their needs. We have also conducted meetings with the leasees to explain the value of harvest and activity records as well as to give them an opportunity to express their needs and expectations. So far, the leasees seem to be satisfied.

Data on white-tailed deer such as age and weight by sex, lactation, and antler measurements are collected on the Coffey ranch. These data are used to estimate population trends, habitat quality, and to help assist in establishing yearly harvest quotas. These data also tell us about the quality and quantity of our deer herd and enable us to make more informed management decisions.

Yearling male data provide indications of habitat quality from year to year. For instance, the basal diameter of yearling buck antlers is a good indicator of deer physical condition and diet quality. Basal diameter measurements of less than twenty indicate low habitat quality, especially when coupled with other measurements such as low dressed weights.

As you can see, a recreational enterprise should be treated just like any other enterprise, a business. To be successful, it requires proper planning and management.

Stewardship and Profitability

John R. Dunkin, Dunkin Families L.L.L., Tulsa, Oklahoma

Ultimately, the benefits of stewardship far exceed the cost.

John H. Dunkin and his wife, Jane, started the 2,300 acre Dunkin Farms at Wagoner, Oklahoma, in 1938. They bought what became Rafter D Ranch in 1941. The Ranch, encompassing approximately 13,000 contiguous acres is located right outside of Hominy, Oklahoma. John R. Dunkin, the son of John H., became the manager of these operations in 1968 at the age of 30, ten years after the death of his father. Jane R. Dunkin died in 1998.

John's belief since assuming management has been, "The better steward you are for yourself and the habitat that enjoy your place– human beings, wildlife and livestock– the better off everything else becomes. Each generation is nothing but the steward for that period. Ultimately, the benefits of stewardship far exceed the cost."

At the Rafter D Ranch, carrying capacity increased 150 percent from 700 cow-calf pairs to 1750 cow-calf pairs on the same amount of land. Acres required per unit decreased from 17 acres to 6.85. The major components in this carrying capacity increase were:

- *Reclaiming over 1000 acres of abandoned farm fields left after the Dust Bowl and Depression era with Bermuda pasture*
- *A strategic herbicide application program*
- *A controlled-burning program*
- *A cross-fencing program*
- *A prioritized pond building and*

maintenance program

Calf weaning weights increased over 33 percent from an average of 450 pounds to more than 600 pounds. Hay protein increased 15 to 20 percent. At the same time, the Dunkin Farms operation was able to reclaim 33 percent more for tillable production, while reducing soil erosion 87 percent from fifteen tons per acre to less than two tons per acre.

The bottom line success of these operations is spawned by the resource-centered philosophies which define them. Opportunity goes hand-in-hand with responsibility when it comes to land ownership and stewardship.

The single most meaningful environmental practice at both operations has been water management– whether catching it where it falls by building ponds to diversify grazing management at the Rafter D or changing tillage practices that allow the soil to absorb more water at the Wagoner Farm, besides handling the excess water there with terraces, drainage systems, and waterways.

At the Rafter D Ranch there are 68 man-made ponds and lakes which drive efficient forage utilization across the ranch. Using the available resources, attention to improving and maintaining water quality and riparian areas is continuous.

At the Wagoner Farm, there are over 52,000 linear feet of terraces and 50,000 linear feet of drainage systems. Over 20 miles of terraces and waterways moving water off the ground, even in normal years, becomes a priority since over a third of the property is adjacent to the Kerr-McClellan Arkansas River Navigation System. Left unchecked, the erosion in such a river-bottom environment not only takes land out of production, it takes environment away from wildlife. Due mainly to no-till farming practices, more efficient water management, and fuel savings, the amount of tillable land increased by over 33 percent while decreasing farming costs 20 to 40 percent.

With all due respect to the environment and the genetics, the men in these operations have been the secret to success. Since the Rafter D started in 1941, there have been three ranch foremen, and the Farm partnership has had 2 managers since 1961. Technical assistance provided by the Wagoner County and Osage County Conservation Districts has been outstanding. Dunkin Farms was awarded the State's Outstanding District Cooperator in 1992 and The National Cattlemen's Beef Association bestowed an Environmental Stewardship Award in 1998.

It all boils down to making the most of the natural resources you have, not just for today, but for tomorrow as well. There is no question these stewardship efforts are rewarded in the bottom line, courtesy of reduced input costs and increased production. That's after considering the obligation to manage our resources for future generations.