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the Upland GAZETTE

◆ North Carolina Small Game Notes ◆

What's **Inside . . .**

CURE I: Lessons Learned

Editor's Note: In the fall newsletter, our cover story delved into the history of CURE (the Cooperative Upland-habitat Restoration and Enhancement program) and how CURE areas (both public and private) were identified and developed. In this issue, we review lessons learned from CURE including communicating and working with landowners and understanding how landscapes affect developing habitat.

Habitat improvement requires different strategies

As the N.C. Wildlife Resources Commission's Division of Wildlife Management took the first steps toward restoring bobwhite quail, we quickly learned that implementing habitat improvement on different landscapes requires different strategies. For example, field borders were readily adopted by Coastal Plain landowners, but Piedmont farmers who depend upon crops to support cattle herds are reluctant to sacrifice cropland to establish wildlife field borders. The aesthetics of weedy borders are of greater concern to Piedmont landowners who live and work on a landscape that is rapidly developing into home sites.

Even on the forested Game Lands CURE areas, different approaches have proven effective depending on forest types and soils. Food and cover plants develop quickly on fertile sites

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on Caswell and South Mountains game lands where techniques like roller chopping and frequent fire, set back encroaching brush. On the other end of the spectrum, recently logged infertile ridge sites on Sandhills Game Land are planted to native grass, using novel techniques.

We learned that borders less than 30-feet wide tend to provide marginal habitat at best, as woodland edges encroach on one side while farm activities encroach on the other. Communicating the importance of weedy borders is difficult. In addition, the borders must be marked to remind farm workers to

continued on page 2

Second Phase of CURE Underway

The N.C. Wildlife Resources Commission authorized funding for the second phase of CURE beginning Jan. 1, 2007 and continuing through 2009. Lessons learned from the initial stage of CURE will be put to work as the Commission's Division of Wildlife Management expands the program for landowners adjacent to current private and game land CURE areas.

Phase Two will apply the following lessons:

- Some management practices are more effective than others. For example, we found there were limited habitat benefits from controlled burning in closed canopy woodlands, so now we pay only for controlled burning in more open woodlands.
- Landowner involvement is critical to success, so we will rely more heavily on landowners to conduct management activities.
- To make CURE dollars go further, we will look at tapping the federal CP 33 "Bobwhite Buffers" program.
- By observing different responses from quail populations in separate CURE areas, we have learned we need to tailor future management plans to maximize opportunities in each area.

continued on page 6

continued from page 1

stay off of them. We have learned to work with farmers to place borders where they complement farm activities. Borders are being used to straighten field edges and remove less productive cropland. We also learned that encroachment from farm equipment is less of a problem when borders run parallel to the row direction. We are currently using what we learned about borders on the pilot CURE areas to implement this Conservation Reserve Program in North Carolina. The program is known as "CP33", and is administered by the U.S. Department of Agriculture's Farm Service Agency.

Working with resident versus absentee farmers

We also found it much easier to establish and maintain habitat when working with resident farmers who control management activities on their land, than with absentee landowners or owners of small farms who work away from home. We are more effective when working with resident farmers because they are accessible. We can interact with them on a regular basis to develop management strategies and to address potential problems, and they have a long-term outlook when compared to farmers who rent crop fields. We remain challenged to develop effective strategies to work with the large pool of absentee landowners and owners of small tracts who may be interested in wildlife, but have limited time and ability to implement plans.

We already knew that excellent habitat is often provided by young forest stands. We continue to struggle, however, to extend benefits into older woodlands where groundcover is difficult to establish because economic concerns make landowners reluctant to thin stands heavily, and to follow thinning with prescribed burns on one to three year intervals.

Communicating with landowners is key

Perhaps the most important lesson learned from the pilot projects, concerns understanding and working with landowners. A successful project requires that both parties communicate effectively and develop trust. It is critical to locate cooperators who have a keen interest in the project and then, to talk with them regularly. The most pressing need is the development of a mechanism to more effectively interact with absentee and small landowners.

Another lesson we have learned concerns landscapes. Our habitat improvements do not occur in a vacuum. The lack of a measurable quail response to our efforts at Turnersburg, and the phenomenal increases at Rowland must both be viewed with caution. At Turnersburg, narrow borders did not develop into useable habitat, new homes popped up, and landowners dropped out because they did not like the unkept look. Similarly, outside the scope of CURE, the landscape at Rowland changed in a positive manner, as landowners harvested timber, and young longleaf pine plantations developed into habitat. These changes point out the importance of considering the land uses that occur on the farm between habitat patches; and teach us to look beyond the property line to consider the land uses that occur for several miles around the project areas.

We have also learned that quail management is not a one-size-fits-all solution for managing at-risk songbirds. There are a few species (indigo bunting, field sparrow) that will likely do well with any quail management, but management for other species requires making adjustments for specific habitat needs, and the consideration of the landscape context. Instead of managing for "songbirds" alongside quail, we should be managing for a small handful of species that are likely to do well in a particular area and whose management is compatible not only with quail, but also with the dominant land use of the area.

We have a clear path to follow on Coastal Plain landscapes dominated by row-crop agriculture, where the addition of field borders has great promise for increasing quail populations, and the CP33 program can be used to implement the practice. Our experience in the Piedmont suggests that native grasses, providing forage and wildlife habitat, are worth pursuing but we remain challenged to work effectively on rapidly urbanizing landscapes. It is too early to evaluate our work on forested sites on state-owned game lands. No, we don't have all the answers, but far from a failure, our approach toward solving the long-term quail decline in North Carolina is making steady progress and is being conducted in ways that allow us to build upon our early efforts.

Bobwhite quail

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Terry Sharpe, 2006 Biologist of the Year, Retires

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One of Terry Sharpe's many contributions to wildlife is improvement of the habitat for bobwhite quail with the CURE program.

Terry Sharpe, Agriculture Liaison Biologist and the N.C. Wildlife Resource Commission's 2006 Biologist of the Year, retired last December. We should also add, "special friend of birds", because Terry dedicated much of his 26-year career to promoting conservation of early succession birds in grasslands, shrub lands and savannas.

During his distinguished career, Terry led many programs for the Commission including those on technical guidance and small game research. Terry's significant accomplishments include working to improve and implement federal Farm Bill conservation programs, researching programs to evaluate pragmatic ways to benefit wildlife on working farms, and promoting controlled burning to benefit wildlife. He also created and maintained many partnerships throughout the southeast to accomplish these far-reaching goals.

Terry is well known and respected for his long-term work with quail and is always in demand as a speaker on this subject. He has been a leader and Commission representative on the Southeast Quail Study Group. Terry was instrumental in the development of the Cooperative Upland-habitat Restoration and Enhancement program, (CURE). This successful program has demonstrated that quail and early-succession song bird populations can be increased by concentrating habitat improvements on landscape-scale projects.

Terry's last year with the Commission was one of his most active. He helped shepherd the CURE program into its next phase, building on the lessons learned in the first phase and setting ambitious goals for the future, while lining up the needed resources to accomplish those goals.

Over the past few years, Terry initiated several new projects. He helped create three Technical Assistance Biologist positions to ensure that wildlife-friendly Farm Bill programs got off to a good start. Terry worked with a large corporate hog producer, Murphy Brown, to enhance early succession habitat and to ecologically link one of their large farms to the nearby Suggs Mill Pond CURE area. Terry wrote a grant and created a position to make that project a reality.

Terry has also been active in working with youth to teach them about wildlife management. Toward this end, he founded the Susan Sharpe Memorial Scholarship Fund, to honor his late wife.

He embodies the mantra, "in every crisis, an opportunity."

Part of Terry's effectiveness comes from his extensive knowledge. There are few people who can tell you more about the plants, animals, management, and history of a given tract of land, particularly in the Sandhills and southern Piedmont. One of Terry's best traits is his positive attitude. He embodies the mantra "in every crisis, an opportunity." When things go wrong, Terry does not complain; instead he looks for the best way forward.

Thanks to his excellent work, Terry has received several awards. Among them the Wildlife Resources Commission's Biologist of the Year Award (twice) and Conservationist of the Year Award in North Carolina, presented by the North Carolina Wildlife Federation.

The Susan Sharpe Memorial Scholarship Fund is an endowment established by the N.C. Chapter of The Wildlife Society (NCTWS), with the purpose of sending one student a year from south-central North Carolina to the Fur, Fish, 'n Game Rendezvous held at Camp Millstone in Richmond County. The Rendezvous is an annual, week-long overnight experience for 12- to 15-year-old students, during which they are exposed to many facets of the enjoyment and wise management of wildlife. The experience is intended to spark an interest in pursuing a wildlife career or avocation. The camp is sponsored by the N.C. State Cooperative Extension with numerous partners including a number of NCTWS members.

Susan Sharpe was involved in the NCTWS Russian Exchange program and accompanied her husband, Terry, on several trips to Russia. A strong supporter of NCTWS, Susan was particularly interested in encouraging students in her home in Richmond County to pursue wildlife careers. She passed away in October 2005 after a battle with cancer.

Donations can be sent to:
N.C. Chapter of The Wildlife Society
P.O. Box 37742
Raleigh, NC 27627
Attention: Susan Sharpe Endowment Fund

Bobwhite Spring Dispersal

What it is and why it's important

By Patrick Cook, Small Game Project Leader, Virginia Department of Game and Inland Fisheries

Biologists classify most animal movements into three main categories: home range movements, migration, and dispersal. Home range movements are movements of an animal within a defined area, repeatedly traveled by that animal (its home range), while carrying out the everyday business of living (feeding, roosting, etc.). Migration is a cyclic movement between two or more home ranges. Probably the most well-known example of migration is waterfowl migration. Many ducks and geese fly south for the winter and return to their more northern breeding grounds in the spring. Dispersal is similar to migration in that a dispersing animal leaves its home range. Dispersal, however, is a permanent, one-way movement from one home range to a different area where a new home range is established. The animal does not return to its original home range.

How to track bobwhites

We often think of bobwhites as being a sedentary species, but they are quite capable of dispersing significant distances. Although bobwhites may move long distances during any time of the year, most dispersal events occur in the spring, prior to the breeding season, when coveys are breaking up (late March through early May). This movement of bobwhites, from winter home ranges to different areas where they form breeding-season home ranges, is called spring dispersal.

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Early studies targeted banding

Past research studies that examined bobwhite movements did not provide accurate estimates of bobwhite dispersal rates (proportion of the bobwhite population that disperses) or dispersal distances (the distances traveled by dispersing bobwhites from their winter home ranges to their breeding-season home ranges). The earliest studies used banding techniques to quantify movements. In these studies, researchers would set bobwhite traps across a particular area. They attached leg bands to captured bobwhites and released them back into the wild. Banded bobwhites would be recaptured at other traps, and researchers could use these trap locations to get a rough idea of movement patterns. Bobwhites that dispersed were not likely to be recaptured, because many of the dispersers would leave the area where traps were set. The advent of radio telemetry in wildlife research offered biologists a better way to quantify movements. Researchers attached radio transmitters to bobwhites and then tracked them using radio receivers. For a long time, however, bobwhite radio telemetry studies did not provide good information on bobwhite dispersal because those conducting the studies were primarily interested in movements of birds within a defined study area. When bobwhites left the study area, they were no longer monitored.

"…if it wasn't for this tendency of some bobwhites to disperse, we probably would have already seen the complete disappearance of the species from almost the entire Southeast."

Telemetry studies shed light on dispersal patterns

Two recent radio telemetry studies conducted in Georgia and Virginia have shed light on the dispersal patterns of bobwhites in the southeast. Both studies were conducted without study area boundary constraints. In other words, researchers followed radio-banded bobwhites wherever they went. By doing so, they were able to accurately estimate dispersal rates and distances. The studies found that 25 to 30 percent of the bobwhite population disperses from their winter range to form a breeding range elsewhere. The average distance traveled by these dispersing bobwhites was a little over a mile. Exceptions did occur. One Virginia bird, for example, moved 8.4 miles, crossing the Appomattox River and relocating from Amelia to Powhatan County. Bobwhites are essentially miniature turkeys in that they walk to travel and only fly to escape from predators. Therefore, 8.4 miles is an extremely long distance for an animal as small as a quail to travel.

Does habitat influence dispersal rates?

The Georgia study went a step further in unveiling bobwhite dispersal patterns. Researchers in this study were also interested in whether or not habitat could influence bobwhite dispersal rates. They wanted to know if birds with winter home ranges that contained better habitat would be less likely to disperse than birds with winter home ranges that contained poorer habitat. Overall, they found that habitat quality had little to no effect on the probability of a bobwhite dispersing. This finding is somewhat surprising and counterintuitive. We have long known that bobwhites prefer and benefit from certain habitat types. In particular, areas dominated by early successional vegetation (weeds, broomstraw and short brush) are extremely important to bobwhites. The results of this study indicate, however, that regardless of how much of this habitat bobwhites have within their home range, a certain number will disperse every spring. These dispersers are essentially "hard-wired" to pick up their bags and go.

Why is dispersal information important?

This may be neat-to-know information, but why is it important? To begin with, if it wasn't for this tendency of some bobwhites to disperse, we probably would have already seen the complete disappearance of the species from most of the Southeast. Immigration from productive populations into areas of suitable habitat (where the bobwhite population is experiencing temporary declines due to lowered survival and/or reproductive rates) is extremely important. This process has been described as "dispersal rescue," and it is absolutely crucial to the long-term persistence of regional bobwhite populations in the fragmented landscape of the modern southeast.

Emigration versus immigration

Although dispersal may allow bobwhite populations to persist in fragmented landscapes, efforts to increase populations at the local scale (e.g. public wildlife management areas) are hindered if emigration (birds dispersing from an area) exceeds immigration (birds dispersing into an area). A significant portion of birds will disperse every spring, regardless of habitat quality on a management area. Therefore, it is important to consider surrounding landscape quality (amount of and distance to suitable bobwhite habitat) and management area size, when determining which areas are most likely to respond to management. Choosing the proper management strategy needed to achieve bobwhite population objectives is important as well. Lower surrounding landscape quality will result in lower immigration rates because there will be fewer birds in the surrounding landscape that can disperse into the management area. Smaller management unit size will also result in lower immigration (in) and higher emigration (out) because birds on the management unit and surrounding areas that disperse will be, just by random chance, less likely to form breeding ranges on the management area. Because bobwhites are known to select early successional habitat, immigration should increase as this habitat increases on an area. Yet, surrounding landscape quality and management unit size will still affect the immigration/emigration ratio.

Strategies to increase bobwhite population

It is important to understand that the amount of effort required to produce a certain number of bobwhites on a property 30 years ago will likely not produce the same number of bobwhites today because of reduced landscape quality. Imagine a population of bobwhites on a management area that in a given year experiences 80 percent mortality, 25 percent emigration, and five percent immigration. That's a complete loss of the entire population on that area. This is an extreme example, but you can see the point. As surrounding landscape quality and management area size decrease, managers must increase the intensity of their management to achieve bobwhite population objectives. On many areas in the modern southeastern landscape, managers may have to adopt an "all out" management strategy to offset losses to emigration and achieve bobwhite populations large enough to support hunting. This type of "all out" strategy would include converting all available upland acreage to bobwhite habitat. Not adopting this type of management strategy will lead to unrealized objectives in many cases.

Using resources, helping bobwhites

Finally, the interaction of sub-populations within regional populations is extremely important to wildlife management agencies when deciding where to devote resources dedicated to bobwhite restoration. Bobwhite biologists from New Jersey to Texas almost unanimously view the CURE approach of establishing focal areas in the most suitable landscapes as the only way to go. In fact, the revision of the Northern Bobwhite Conservation Initiative (a plan aimed at national range-wide restoration of bobwhites) will incorporate this focal area approach.

We should all applaud the efforts of biologists with the N.C. Wildlife Resources Commission for taking this approach and not squandering scarce conservation dollars on an ineffective "shotgun" strategy that would spread resources across the entire state. This is not to say that landowners wishing to increase bobwhite populations on properties outside of designated focal areas should not do so. Those landowners often have great success, and efforts to increase bobwhites anywhere within their range should be strongly encouraged.

The public must understand, though, that the resources of most wildlife agencies are extremely limited and that the landscape-level restoration of bobwhite populations, even in the most suitable landscapes, will not be easy. It is arguably the most difficult task that game biologists have ever undertaken, but biologically sound focal area strategies that are experiencing success in North Carolina and elsewhere provide us with much needed

continued from page 1

Our long-term goal for the program is to increase and maintain early-succession habitat to positively impact populations of northern bobwhite and "at-risk" grassland and shrubland songbirds, within CURE focal areas and game lands. To do this, we will maintain the current names of our CURE cooperatives and continue our landscape approach to habitat restoration. Six habitat-improvement practices will be funded, with emphasis on field borders and prescribed burning in open forests at our northern and southern coastal sites. The program will help establish native warm-season grasses in our western Piedmont focal area and promote inclusion of these season grasses in haying and grazing.

Three additional CURE biologists are now in place to help implement all phases of the program. We will explore opportunities to purchase quality upland tracts and take advantage of conservation easements to increase the quality and lifespan of our efforts.

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Bobwhite quail

The division will also continue to monitor habitats and wildlife populations with a variety of bird and useable habitat surveys. We will further refine our survey techniques and tailor them to each focal area to better gauge the impact of our activities. We will also survey our stakeholders and include their feedback with our biological information to measure progress in meeting their needs.

Our agency will examine additional funding sources for CURE. Where feasible, CURE funds will be supplemented by other programs such as the Conservation Reserve Program (CRP) and the Wildlife Habitat Incentives Program (WHIP). We will continue to work through the United States Department of Agriculture Farm Bill programs such as these to strengthen interactions with state agencies, federal agencies and private landowners. Other potential funding may include a legislative appropriation and property tax relief to establish and maintain certain wildlife habitat improvements.

We will continue to increase positive attitudes toward CURE with focal area landowners and outdoor enthusiasts. *The Upland Gazette* and *Wildlife in North Carolina* will be used to keep conservationists, small game hunters, landowners and the public informed. Additional information will be distributed through technical guidance and information sheets and bulletins on preferred habitat improvement practices.

Time is Ticking on CRP Continuous Sign-up

Program ends in December 2007

The U.S. Department of Agriculture Farm Service Agency's (FSA) Conservation Reserve Program (CRP) is a voluntary program available to agricultural producers to help safeguard environmentally sensitive land. CRP participants plant and maintain long-term, resource-conserving, vegetative covers to improve land quality. In return, FSA provides participants with rental payments and cost-share assistance. FSA administers this program, while other USDA agencies and partners provide technical support.

The continuous CRP sign-up, which uses the CP-33 Practice (Habitat Buffers for Upland Birds) and the newly released CP-36 Practice (Longleaf Pine Initiative), ends in December 2007. Continuous CRP differs from general CRP because eligible lands can be enrolled at any time, not just during a designated time frame. And continuous CRP is not competitive; it operates on a first-come, first-served basis until the state's allotted acreage is enrolled.

Besides the lack of competition, continuous CRP has additional benefits for landowners who are willing to enroll their property in a 10-year contract. All CRP initiatives offer rental and maintenance payments and 50 percent reimbursement for installation. Continuous CRP goes even further by paying sign-on bonuses, additional incentives for practice installation, financial assistance with management practices and increased rental payments for some practices.

Even though CP-33 has been a focus during this sign-up period, several other practices are available to improve habitat on working lands. Continuous CRP practices which can be installed to enhance wildlife habitat on cropland include: Shelterbelts, Filter Strips, Windbreaks, Grass Waterways and Shallow Water Areas. Unlike general CRP, continuous CRP allows for several practices to be installed on "marginal pastureland." Marginal pastureland is defined as pastureland that is adjacent to surface water. The practices which may be enrolled on marginal pastureland are Forested Riparian, Wetland and Wildlife Buffers. For more information, contact your local FSA or Natural Resources Conservation Service office.

Wildlife Resources Commission Endorses Forest Management Plan in the Globe

This year, the U.S. Forest Service (USFS) has suggested that limited logging be allowed in the northwest section of Caldwell County. The planned thinning totals just over 200 acres, mostly near Thunderhole Creek.

TONY ROBINSON

Young wood thrush

The N.C. Wildlife Resources Commission supports this forest management plan. An assessment by Wildlife Resources Commission biologists shows the plan would help restore valuable wildlife habitat.

The timber parcel is located within the Grandfather Ranger District of Pisgah National Forest in Avery, Caldwell and Watauga counties. Known as the Globe Project, the plan includes creating clearings and planting native grasses and clovers, while eradicating invasive, non-native plants. A timber harvest would take place on a portion of the acreage.

With construction and development displacing or disrupting habitats throughout the region, forest management on public lands has become increasingly important. Commission biologists noted that the habitat created would be vital for several declining songbird species, as well as for grouse, wild turkey, bear and deer.

"The Wildlife Resources Commission supports this proposal because of its anticipated benefits to fish and wildlife," said Gordon Warburton, a supervisory wildlife biologist with the agency. "A young forest—what we call an early successional forest—is just as important as a mature forest for creating diverse habitat that is part of a balanced ecosystem."

Currently, the area is made up mostly of large mature trees in the 90-year class. Ironically, while big mature trees are beneficial in many ways, they do not support the largest base of plant and wildlife species. Large expanses of big trees only support a few species of birds and ground dwelling animals because the cover is too thick to allow undergrowth.

"In an overall forested environment like we see along the Blue Ridge, managed forests provide a diversity of habitats that allow for very high bird abundance and diversity," commented Mark Johns, the Partners in Flight coordinator for the Commission. "This has been proven many times in the scientific literature."

Here are some examples of the benefits of a young forest:

- In the mountains, start small and you will find big importance. Commission biologists said that clearings will foster insects, which become food for birds and small mammals, which, in turn, become food for larger predator species like snakes, bobcats and birds of prey.
- Openings allow vegetation growth like grasses, various tree seedlings and shrubs to emerge, which is normally hampered in the shade of mature forests. This new vegetation is an ideal food source for many birds, rabbits and deer. Ruffed grouse and many warbler species require such habitats at various life stages.

"A young forest—what we call an early successional forest—is just as important as a mature forest for creating diverse habitat that is part of a balanced ecosystem."

"Years down the road, these areas will be reforested and blend in with the landscape," said Dean Simon, a wildlife forester with the Commission. "The overall benefits to wildlife from this proposed management far exceed what will happen as the result of inaction."

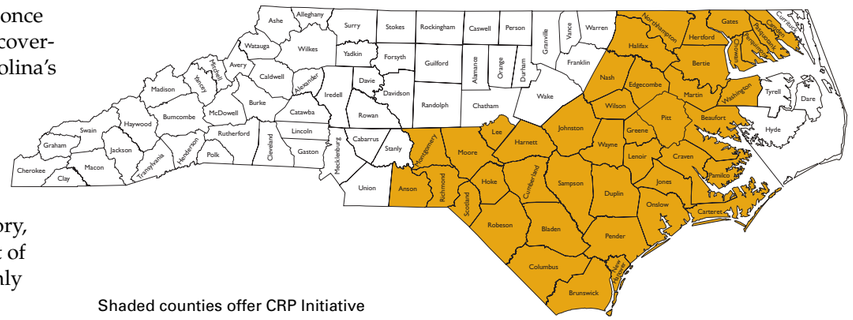
Sportsmen can contact their local Ranger District office at www.cs.unca.edu/nfsnc/facts/office_addresses.htm.

TONY ROBINSON

Major Incentives Offered for Longleaf Pine Establishment

Sign up for CRP through December 31, 2007

Longleaf pine forests were once the dominant forest type covering uplands in North Carolina's coastal plains and lower Piedmont. The U.S. Forest Service has estimated that this once-vast forest ecosystem and all of its rich diversity and cultural history, has been reduced to a fragment of what it was, and now covers only 177,000 acres in the state.



Shaded counties offer CRP Initiative

In December 2006, the United States Department of Agriculture's Farm Service Agency (FSA) opened enrollment in an expanded Conservation Reserve Program (CRP), the Longleaf Pine Initiative, that is designed to plant up to 32,250 acres of longleaf pine forests in 42 North Carolina counties. CRP is a voluntary program that provides annual rental payments and cost-share assistance to restore long-term, resource conserving covers on eligible land. FSA makes annual rental payments based on the agriculture rental value of the land and provides cost-share assistance of up to 50 percent of the participant's costs to establish CRP practices. Contracts are from 10 to 15 years. Sign-up is continuous, provided eligibility requirements are met.

Sign-up, rental rates and cost-share payments

Sign-up began Dec. 1, 2006, at local FSA offices for the CRP Longleaf pine Initiative, and runs continuously until the acreage goal is met, or Dec. 31, 2007, whichever comes first.

Eligible land and practices

To be eligible for this practice, land must be located in counties within the historic range of the longleaf pine, and soils must be suitable for longleaf pine. In addition, land must meet the basic CRP eligibility requirements.

Acceptable land is cropland that was planted or considered planted to an agricultural commodity in four out of six years between 1996 and 2001. The land must also be physically and legally capable of being planted in a normal manner to an agricultural commodity.

Rental rates are based on three predominant soils on land offered for enrollment. FSA bases rental rates on the average value of dry-land cash rent for the past three years and adjusts rates to reflect the relative productivity of soils within each county.

SIP and PIP payments

A one-time up front signing incentive payment (SIP) of $100 per acre for CRP contracts (for 10 or more years) will be paid by the FSA, after eligibility criteria are met and CRP contracts are approved.

A one-time practice incentive payment (PIP), equal to 40 percent of the eligible installation costs, will be paid after the CRP practice is installed, eligible costs are verified and other payment eligibility criteria are met. In addition to the payments described, FSA will pay up to 50 percent of the eligible cost of establishing a permanent cover.

Contracts

The effective date of the CRP contract is the first day of the month following the month of approval. In certain circumstances, producers may defer the effective date for up to six months.

Contracts are for not less than 10, nor more than 15 years.

Cooperating agencies

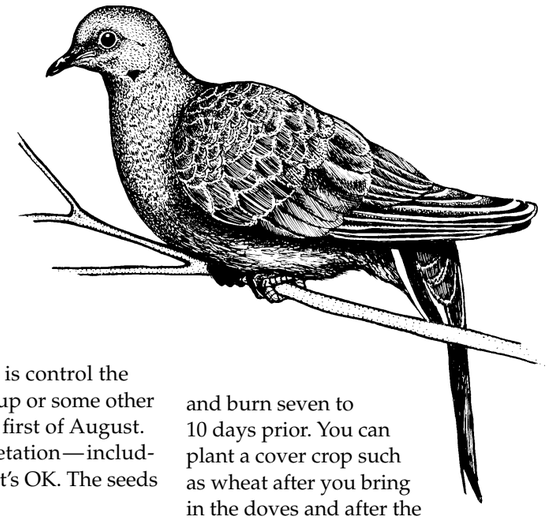
CRP is administered by the FSA with assistance from the USDA Natural Resources Conservation Service (NRCS); the N.C. Wildlife Resources Commission, N.C. Division of Forest Resources; and local soil and water conservation districts. For more infor-

Technical Requirements for CRP CP36, Longleaf Pine Initiative

This practice is to restore and manage longleaf pine forests on cropland, including the native groundcover plants to provide wildlife habitat and protect water quality.

- Required mid-contract management includes understory burning, or light disking between tree rows.
- Establishment of tree species other than longleaf pine is not permitted.
- Portions of fields, where it is infeasible to establish longleaf pine are not eligible for enrollment.
- In-stand mowing and pinestraw raking are prohibited during the contract period.

Dove Fields: The N.C. Wildlife Resources Commission Way



Dove Tales

Some years ago, while hunting near Edenton, I saw doves flock to a recently burned field. The timber had been clear-cut and the cutover burned in preparation for replanting. The blackened ground was thick with the gray birds, bobbing for the seeds scattered on the clean-burnt forest floor.

I thought this was something that we could use on the food plots we plant on Commission game lands. The techniques we have developed since, can also be adapted by the private landowner interested in planting fields for dove season.

The reason that doves are attracted to the burnt fields is that they are clean-ground feeders. Unlike quail or pheasants, doves do not scratch in search of seeds, but pick them up off the ground. Disking a field will generally leave clumps of dirt and vegetation, along with the seeds. A clean burn leaves nothing except ash and seeds. And the cleaner the ground, the better doves like it.

Simply burning a field, however, probably won't bring the doves. First, some crops burn better than others. Second, some weed control is required. And third, timing is crucial.

Crops burn differently

On Wildlife Resources Commission game lands, we typically plant adjoining fields of millet, corn, sunflowers, wheat and other food crops. The various types of millet—brown top, German, white/proso, etc., burn especially well because their hard-coated seeds survive fire. Sunflowers, on the other hand, have oily seeds that burn up.

Millet, planted in May to early June, will mature just after the early September start of dove season. But if you wait until that time to burn the field or make other necessary preparations, your results will be poor. Weeds and native grasses (crabgrass, ragweed, nut-grass, redroot and others) probably sprouted during the growing season. Those green grasses will keep the fire from burning hot enough to do its intended job.

How and when to use weed control

What you have to do is control the weeds. Apply Roundup or some other herbicide around the first of August. It will kill all the vegetation—including the millet. But that's OK. The seeds will survive.

Those concerned about poisoning the seeds, the ground or the birds need not worry. The U.S. Department of Agriculture says that Roundup and similar herbicides are labeled for this type of use. Their chemical components break down quickly, leave no residue and have no detrimental effects.

Everything will be dead and dried out within two weeks. A week to 10 days before the start of dove season, burn the sprayed area. It will burn clean because all of the green vegetation will be dry. The hard seeds will fly all over the ground, ready for doves to pounce on.

Timing is key

Your timing must be precise. Burn seven to 10 days before the start of the season—no more, no less. If you burn the field too soon, rain can cause the seeds to germinate. And if you wait too long, doves might not find the field. You want the doves to find your seed-covered field and get into the habit of using it before opening day.

You can also divide your field: weed and burn one section in time for the start of the season and save the other sections for later. Follow the same schedule—apply herbicide one month prior and burn seven to 10 days prior. You can plant a cover crop such as wheat after you bring in the doves and after the hunt. Just be sure to disk a fire line between the sections of field you want to hunt sooner and those you want to save for later.

Following these suggestions without taking other measures, will not yield a good dove hunt. You must also know the doves in your area. Your field must be in their flyway or another good location that will assure they find it.

Laws of attraction—and baiting

You should also know the laws about dove hunting in food plots. Where hunters get in trouble is throwing seed onto the ground to "bait" a field. But if you have grown the crop, you can manipulate it for hunting. Just don't harvest the seeds and expect to be able to put them back on the ground. That crosses the line into baiting.

It is also a good idea to leave something for after the season and through the winter. On Commission game lands, although we realize we are in the hunting business, we try to make sure food and habitat needs for wildlife are met first. Good hunting is a byproduct of good care taking.

—Dale Davis, biologist,
N.C. Wildlife Resources Commission
Coastal Region

Fire Council Advocates Burning

Co-authored by John Ann Shearer, Fish and Wildlife Biologist with the U.S. Fish and Wildlife Service in Raleigh and Matt Flint, State Conservation Biologist with the Natural Resources Conservation Service in Raleigh

Many of North Carolina's natural ecosystems require periodic fire for their survival. That's because fire consumes plant matter, which releases nutrients. The nutrients increase the growth and yield of plants that provide forage, escape and brooding habitat. Therefore, prescribed burning benefits game, nongame and endangered wildlife species by enhancing wildlife habitat.

What future does prescribed burning have in North Carolina? In our growing state, liability, smoke management and public attitudes are just some of the challenges faced by people who manage land, using prescribed fire.

In 2006, a group of concerned professionals chartered the N.C. Prescribed Fire Council to support the use of prescribed fire to manage the state's natural resources. Chief among the Council's goals is a mission to foster cooperation among all parties in North Carolina with a stake in prescribed burning. To accomplish this, the Council encourages the exchange of information, techniques and experiences among the state's prescribed fire practitioners. The Council also promotes public understanding of the importance and benefits of prescribed fire. Other Council goals include optimizing burning opportunities to benefit natural ecosystems and wildlife, and reducing the risk of damage from wildfires.

NCWRC

Many of North Carolina's natural ecosystems require periodic fire for their survival.

The Council's first at-large meeting was held at the N.C. Zoological Park, in December. Here are some highlights:

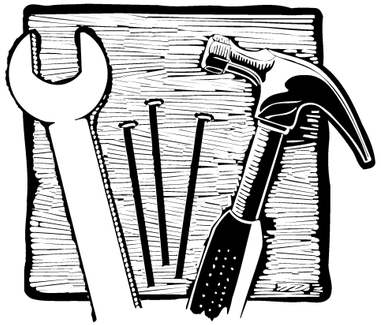
The N.C. Division of Forest Resources (NCDFR) responds to 5,000 wildfires per year, and considers 1,450 communities to be at-risk of damage from wildfire, according to acting state forester Dan Smith. The boundary between wild land and developed land often creates conflicts for landowners who want to manage with fire. On the other hand, use of prescribed fire to reduce wildfire hazards under desirable conditions, reinforces the role of managed burning as a resource protection option for property owners.

New smoke management guidelines for prescribed burning are being drafted by the NCDFR. Spokesman Gary Curcio explained that incorporating new technology into smoke management requirements can help balance the needs of fire managers with public health and safety issues.

Air quality regulations are one of the most important developments that will affect the future of prescribed burning in North Carolina, according to Laura Boothe of the N.C. Division of Air Quality. Boothe explained how state and federal air quality regulations, now under development, may address emissions from prescribed fire. Air quality regulators are deeply involved with the Fire Council and make the partnership stronger. Together they work to sustain the practice of prescribed burning in ways that minimize adverse impact to air quality.

A panel of prescribed burners representing North Carolina private consultants, conservation organizations and state and federal government agencies discussed the amount of land they burn each year, why they need to manage fire, how many resources are required to conduct their fire, and the most difficult obstacles they face. Challenges include: smoke management, how to achieve goals with fewer resources and training.

All concerned private landowners and public land managers are encouraged to become aware of and involved



Land Managers' TOOLBOX

Benefits of Native Warm-Season Grasses

Native warm-season grasses (NWSG) provide excellent summer forage for livestock. Compared to tall fescue, these grasses can produce double the tonnage, are more palatable, are better adapted to dry summer conditions, and need less fertilizer or lime to perform well. When properly hayed or grazed, these grasses provide quail and other wildlife with winter cover as well as excellent nesting and brood habitat. North Carolina farms that include these grasses in their livestock operations can ensure against forage losses due to summer drought and help restore small game habitat.

Establishment

Native warm-season grass can be established through conventional tillage or with a no-till drill. Weed competition is minimized by no-till planting into killed sod, making it the method of choice.

To convert tall fescue to NWSG:

- First hay or closely graze the site in September.
- Spray the re-growth with a 1 to 2 percent glyphosate and nonionic surfactant solution in October.
- Burn the site in February-March to remove duff.
- Re-spray any live fescue in April.
- No-till into dead sod in late May or June. Set the drill to a depth of no more than one-quarter inch.

Seed at 4-6 pounds of pure live seed (PLS) for wildlife and 8-12 pounds PLS for hay.

If conventional tillage must be used, kill fescue as described above, and then prepare a smooth firm seedbed by disking and cultipacking.

- Use a drop spreader for smooth or de-bearded fluffy seed.
- Use a drill with a NWSG seed box for fluffy seed or mix fluffy seed with pelletized lime and stir frequently if planted with conventional equipment.
- Do not cover NWSG seed, but cultipack after seeding. Do not apply nitrogen at or before planting time.
- Control competition using appropriate herbicides.

On a good site with adequate rainfall, NWSG can be fully established by the first fall, and grazed the following summer. However, some stands may take up to two years to mature.

Grazing and haying

Summer grazing of NWSG stands from mid-May through mid-August, can provide approximately two pounds of weight gain per day for the period (with four steers per acre). Grazing pressure should be monitored so that a 12-inch minimum of stubble is retained.

NWSG should be cut for hay in the late boot stage. Leave eight inches of stubble to provide leaf surface for rapid re-growth, maintain stand vigor and reduce weed problems.

Burning

NWSG benefit from being burned in early spring. A controlled burn every three to four years will improve livestock palatability, reduce woody plant and cool season grass encroachment, and improve wildlife habitat. For more information, contact the N.C. Wildlife Resources Commission's Division of Wildlife Management.

DON HAYES

Cows enjoy native warm-season grasses that thrive in summer, halting forage loss and restoring small-game habitat.