



Hugh Hammond Bennett (right), first Chief of the Soil Conservation Service.

# natural resources REPORTER

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## EQIP Continues With Important Changes

The Environmental Quality Incentives Program, known as EQIP, has been available since the 1996 Farm Bill and will continue under the new Farm Bill passed in May 2002. Through this legislation New Mexico farmers and ranchers will have access to financial assistance to carry out conservation improvements on their working lands. EQIP provides financial assistance to agricultural producers who wish to install conservation measures on their lands and maintain their natural resources. The voluntary program provides cost-share assistance at rates up to 75 percent of the cost of the projects being reimbursed by the federal government. Some of the natural resource concerns that can be addressed with this program are soil erosion, water quality, water quantity, grazing management, brush control, and wildlife habitat improvement.

A number of changes were made in the EQIP with the new Farm Bill. Funding for EQIP has been increased significantly, with almost twice as many funds to be available in 2003 compared to 2002. Final action on funding is needed by Congress. But it



Winter time cattle feeding

is anticipated this will occur in January or February 2003.

Fund limitations have been increased to \$450,000 per person for the life of the new Farm Bill. Now a participant can be paid for the first project installed immediately, and not wait until the new federal fiscal year. Contract length has been changed to allow contract periods to run 2-10 year instead of 5-10 years. Large

confined livestock operations, with over 1000 animal units, are now eligible for EQIP assistance.

A provision calls for up to 90 percent cost share assistance for limited resource and beginning farms. Also, special funding is available for ground and surface water conservation.

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**(EQIP Continues With**

## New Opportunities In Farm Bill



Rosendo Trevino  
State Conservationist

As our NRCS staff prepares to deliver the 2002 Farm Bill programs we are becoming more attuned to the many new opportunities this legislation offers farmers and ranchers in New Mexico.

We are currently waiting for the final rules to be developed regarding how these programs will be implemented. We ask that New Mexican farmers and ranchers monitor the

NRCS website, and comment on the proposed rules. It is in this way that we can ensure our producers in this state can have their voice heard.

I cannot emphasize enough that the 2002 Farm Bill affords significant opportunities to improve the natural resources on private working lands in New Mexico. It contains some tremendous changes, and presents challenges we will meet over the next few months. As we enter the new year we will be forward-looking and continuing our commitment to best serve those who join with us to conserve New Mexico's many natural resources. Season's greetings from all our staff to you.

### Natural Resources Reporter

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## Important Changes - from page 1)

Plans are being made in New Mexico to make the program more locally led. Soil and water conservation districts will be asked to chair a local work group that will provide recommendations to NRCS on implementing the program. Some of the items that will need local input include cost share rates, practice costs, ranking criteria, practice list, and special area considerations.

Currently final rules are being developed at the national level. Applications are being accepted at all New Mexico Natural Resource Conservation Service offices. There are 37 local offices in the state.


For further information contact Ken Leiting, state resource conservationist, at (505)761-4425.


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# 2002 CENSUS OF AGRICULTURE

***You Make It Known –  
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 United States Department of Agriculture

  
 National Agricultural Statistics Service

## The Census of Agriculture Is Coming

The 2002 Census of Agriculture will appear in your mailbox in late December. It provides official facts representing all U.S. producers and commodities.

Don't be left out when decisions are made about you and American agriculture. Take the time to fill out your report form and return it by February 3, 2003. It's the law.

All the information you give is completely confidential by law.

To ensure your farm or ranch is counted, call **1-888-4AG-STAT** and provide your name and address.

# Agricultural Chemical Handling Demonstrated in Dona Ana County

Two new facilities that demonstrate how to handle agricultural chemicals made their debut in Dona Ana County this past year. The agricultural chemical handling facilities were built on the Steve Lyles and Paul Koenig farms. The demonstration project was constructed to encourage New Mexico farmers and ranchers to install similar facilities. Jornada RC&D Council and La Union Soil and Water Conservation District sponsored the demonstration project with the assistance of an Environmental Protection Agency (EPA) 319 grant.

Agricultural chemicals play a vital role in maintaining and increasing agricultural production throughout the agricultural industry. But, these products must be stored and handled safely to protect both our people and water quality. The leakage of agricultural chemicals is a danger to water supplies and human and animal safety. Pesticides work by interfering with the life processes of plants and insects. Some pesticides may also be toxic to humans. When found in water supplies pesticides are not normally in concentrations high enough to cause acute health concerns. Instead, they are usually found in low concentrations that can cause chronic health problems from prolonged exposure.

The use of agricultural chemical handling facilities can minimize the dangers associated with the use and storage of agricultural chemicals. Agricultural chemical handling facilities consist of a mixing pad, usually of sealed concrete, with a sump that has the capacity to capture any spills in conjunction with the mixing and loading of agricultural chemicals into the farm sprayer rigs. They also usually have a safe storage area for chemicals that are normally stored on the farm. The storage areas provide secondary containment in case the farm storage facilities leak. Most agricultural chemical handling facilities are also equipped with a first aid station, in case a farm emergency occurs.

Farmers who have already seen the demonstration facilities report being favorably impressed. They state they are pleased with the economical cost of the structures, and the flexibility of designs that will help them meet their safety needs. They also note the ease of handling when they or their employees must use potentially dangerous chemicals.

For further information contact Mary Sanchez, district conservationist, Las Cruces Field Office, (505)522-8775.



New facilities demonstrate how to handle agricultural chemicals

# Range Monitoring Comes Home to the Ranch

You may know that the cross-fencing you installed helped produce more forage. And that the back forty is suffering from an erosion problem. But can you measure how well the spring pasture is doing, or how bad your invasive brush problem is?

Ranchers make judgement calls daily on where and when to pasture, how to treat invasive weed problems, and whether to buy or sell. However, there are situations where they can benefit from a little more information to help them make the right decision, specifically information about the condition of their rangeland.

The New Mexico Interagency Rangeland Monitoring Handbook and attendant workshops meet that need. Created at the request of the New Mexico Association of Conservation Districts and under the sponsorship of the Southwest Strategy organization, the handbook and workshops seek to teach ranchers a variety of techniques they can use to monitor their rangeland. They may use these range monitoring techniques to:

- determine the effectiveness of grazing and other management practices,
- assist in providing timely information for making livestock management decisions
- provide a systematic approach to document their stewardship efforts

- document the effect weather and other natural changes of the resource.

The monitoring the work group is advocating is voluntary. The information gathered by the rancher belongs to him or her. Who they share that data with is their decision.

There are a variety of monitoring techniques taught by the work group. They vary from a simple collection of photos to complex measurements of resource conditions. They are recognized by industry representatives and agencies as technically acceptable

to detect change over time.

The most basic monitoring technique is the use of **photo points**. By taking photos at the same time of day and exact location it is possible to detect changes in vegetation through time. This is a quality measure.

The **line-point intercept** is a rapid, accurate method for quantifying ground cover including vegetation, litter, rocks and biotic crusts. These measurements are related to wind and water erosion, water infiltration, and the ability of the site to resist and recover from degradation. This method uses a tape measure to lay



Dr. Jeff Herrick, Agricultural Research Service, Jornada Experimental Ranch, instructs how to do line point transect near Artesia.

out a line and calls for dropping a pin at regular intervals and recording every plant species it intercepts. Finally the kind of surface the pin drops on is recorded. The manual then describes how to calculate the percent of canopy cover, bare ground, and base cover.

The **gap intercept** measures the proportion of a line covered by large gaps between plants. Large gaps between plant canopies are important indicators of potential wind erosion and weed invasion, and an indicator of runoff and water erosion.

The **soil stability test** provides information on degree of soil structural development and erosion resistance. It also reflects soil biotic integrity because the “glue” which binds soil particles together must constantly be renewed by plant roots and soil organisms. This test measures the stability of the soil when exposed to rapid wetting. It is affected by soil texture, so it is important to limit comparisons to similar soils that have similar amounts of sand, silt, and clay.

The **belt transect** provides a way of measuring the presence of invasive plants or woody seedlings. Belt transects provide a good means of monitoring brush or shrub encroachment.

The range management systems taught by Southwest Strategies teach ranchers the basics of monitoring their land, and how the information gained

can benefit them. They aid in the monitoring of three rangeland attributes: soil and site stability, watershed function, and biotic integrity. Nearly everything for which we value rangelands depends on these attributes.

A combination of short-term and long-term monitoring is recommended. Long-term monitoring is designed to document changes in the condition of the land and is normally

repeated every one to five years. Short term monitoring may be repeated at any time interval and is designed to check whether or not the management system is working.

The workshops sponsored by the workgroup include an explanation of techniques, followed by hands-on experience in the field.

For further information contact George Chavez, range management specialist, (505)761-4421.



Tobosa grassland being measured for monitoring near Deming.

# Pole Cuttings Make Restoration Succeed



San Juan Pueblo lake before riparian restoration



San Juan Pueblo lake after riparian restoration with pole cuttings

The New Mexico Plant Material Center makes available 100 pole cuttings or transplants of many riparian plant species for demonstration projects by soil and water conservation districts. These demonstration projects are part of the NRCS goal to restore and enhance wetland ecosystems, fish and wildlife habitats, and improve the environment quality of both rural and urban landscapes. Most exciting for New Mexico is the pole cutting technology that the Plant Material Center is using to make these demonstrations possible.

During the past 15 years, the Plant Material Center has been testing riparian trees and shrubs for their ability to root from dormant pole cuttings (a rootless pole cut 10 to 15 feet in length). Through this testing process, the Plant Material Center has found that most common riparian woody shrubs in the Middle Rio Grande Valley can be established from vigorous, rootless stem cuttings.

These poles are planted into the water table where they grow roots and become established without irrigation. The pole cuttings do not root in the water table where there is no air, but rather in the capillary fringe of the water table where there is both air and water.

By comparison, most containerized woody transplants typically die without irrigation before they have a chance to become established because the area the New Mexico Containerized woody transplants need continuous,

extensive follow-up irrigation to survive, and irrigation is expensive and impractical in wild land plantings.

The Plant Material Center has approximately 20 acres of riparian plant materials in production for pole cuttings that are harvested annually for distribution purposes. The participating NRCS Field Offices included:

Albuquerque	Espanola	Raton
Alamagordo	Estancia	Roy
Artesia	Grants	Silver City
Carrizozo	Las Cruces	Socorro
Chama	Lordsburg	Truth or Consequences
Cuba	Los Lunas	Tucumcari
Deming	Mora	

Other participating organizations that received riparian plant materials included the Army Corps of Engineers and Bosque del Apache Wildlife Refuge.

Santa Anna Pueblo and the Bosque Tree Farm are now selling New Mexico Plant Material Center selected cottonwood and black willow pole cuttings to the public. Currently, the other species established by pole cuttings are only available at the Plant Material Center.

For more information contact Gregory Fenchel, Plant Material Center manager, at 865-4684.

## Doing Business on the Hood of a Pickup Truck

Adrian Tafoya spread the checkout sheets on the hood of the government four-by-four. The hood was his office more often than not, and he was going over the pay out figures with the farmer. It was a day in his life as a soil conservationist for the Natural Resource Conservation Service, a division of the U.S. Department of Agriculture.

Adrian had started his day in the Truth or Consequences field office which covered a lot of territory. Adrian could find himself visiting only one cooperators a day or as many as five. Today Adrian was headed for a farm in the Uvas valley and one by Hatch. He liked to get out of the field office by eight. As Adrian headed for the Uvas Valley today, the early morning sun glared off the water of Elephant Butte Reservoir. Adrian left Interstate-25 and went through Hatch heading south. At the Middle-of-Nowhere Bar he turned west past rangeland cast yellow with dormant grasses. Arriving in the Uvas Valley, he met with the farmer that had an EQIP irrigation project near completion. The Uvas Valley was a closed basin so it was limited to well irrigation. Farmers in the area were saying that due to the drought the water table was going down five feet a year. Whether the water table was going down or not, conservation of water in this kind of country was important.

The irrigation system on the farm in the Uvas Valley had deteriorated and was losing significant amounts of water. Since EQIP focuses on efficiency it was easy to see how replacing the old cracked concrete ditch with a pipeline would conserve a great deal of water and improve the farm operation. It was Adrian's job now to measure the amount of pipeline that had been laid and check that the improvements met specifications.

Hoisting the bright red measuring wheel from the truck, Adrian started down the edge of the field where the pipeline had been laid.

Adrian finishes the benches with the measuring wheel, checks the pipe, and tallies his results. It is time to head to the house and share his findings with the cooperators ... on the hood of the truck. A few minutes so that everyone understands, and a handshake good-bye and it is time to head to Hatch

Arriving north of Hatch he pulls into a field that is irrigated using an earthen ditch. He pulls out the soils map he had looked up before he came out into the field. It



Adrian Tafoya with measuring wheel

shows three types of soil including some that is sandy, which would facilitate large losses of water in the earthen ditch. The farmer wants to line the existing 1300-foot ditch with concrete, which may be the best solution, but Adrian wants to check another idea just to make sure it isn't a better deal for the farmer and less expensive. To scope out his ideas, Adrian needs to take some preliminary surveying shots of the field. He'll take the data back to his office and do the math to see how the alternatives compare.

It was a good day. It was the day in the life of a soil conservationist.

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