



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

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Options Open to New Mexico Dairies by Linda Scheffe and Mike Sporcic



In 2002, New Mexico ranked seventh in the nation for milk production. At the same time, its dairies led the nation in average herd size, and numbers of dairy and feedlot facilities are increasing in certain parts of the state.

This increasing concentration raises concern. Leaching and runoff from manure and effluent could contaminate ground and surface

waters with nitrogen, phosphorus, bacteria, and sediment. Improper storage, handling, and use of effluent, manure, and inorganic fertilizer could impair the quality of New Mexico's waters that are used for human consumption, recreation, fisheries, and irrigation.

The development of the joint USDA and EPA *Unified National Strategy for Animal Feeding*

Operations called for large and small livestock producers to address water quality problems, if present, and to improve nutrient management and record-keeping practices. Producers can be proactive and avoid the possibility of regulatory action, fines, and permitting by voluntarily addressing water quality problems.

Managing nutrients efficiently involves developing and maintaining a written comprehensive nutrient management plan (CNMP). The current Farm Bill requires a CNMP on all facilities which receive animal waste management practice cost-share funds. Comprehensive nutrient management planning addresses all aspects of manure production, collection, storage, and land application, as well as land management practices, record keeping, and other manure utilization options.

Since 1998, NRCS New Mexico has lead an interagency workgroup in animal feeding operations to develop training, certification criteria, joint planning processes, tools, and software for use in developing and implementing CNMPs. Workgroup members include representatives of NRCS, New Mexico

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Getting a Head Start: New Cooperative Conservation Initiative



Rosendo Trevino III
State Conservationist

A new national initiative, cooperative conservation, is on its way to New Mexico's grasslands and farms. Yet, we realize the NRCS, State of New Mexico, New Mexico Association of Conservation Districts, and local Soil and Water Conservation Districts have a head start.

In FY 2004, New Mexico received 1,478 applications alone for funding under the Environmental Quality Incentives Program (EQIP) to bring conservation to rangelands and farms. Additional applications were received

under other 2002 Farm Bill Programs. This was at a time of severe drought and many farmers and ranchers felt compelled to push their resources to the limits. It was necessary for New Mexico NRCS, State of New Mexico, New Mexico Association of Conservation Districts, and local Soil and Water Conservation Districts to get creative by utilizing technical service providers to increase technical assistance and respond to the many requests for conservation improvements.

In 2004 the State of New Mexico appropriated \$1.2 million to match NRCS on a fifty-fifty basis for 26 employees whose tasks are to assist in implementing the 2002 Farm Bill. This year the State of New Mexico approved an additional \$500,000 for this purpose.

In FY 2004 the 26 Farm Bill employees assisted in processing 1,478 EQIP applications, developing 866 contracts, and bringing 3,513,576 acres under contract for conservation improvements.

While the governor and state legislature appropriated the funds to make this technical assistance possible, the funds were administered by the the Soil and Water Commission who contracted with the New Mexico Association of Conservation Districts (NMACD) for the management and coordination of the initiative. NMACD in turn placed the employees, who are provided technical supervision by NRCS staff, in local Soil and Water Conservation Districts.

It was imperative that New Mexico's farmers and private landowners received the technical assistance the Farm Bill Employee Initiative provided to utilize the federal conservation funds that were available. Assistance was provided in design and layout of conservation practices and administration of the federal funds.

NRCS New Mexico is continuing to explore cooperative conservation opportunities that offer the promise of being as successful as this Farm Bill Employee Initiative.

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Dairies (continued from page 1)

State University, New Mexico Environment Department (NMED) Groundwater Bureau, NMED Surface Water Quality Bureau, New Mexico Department of Agriculture, NM Dairy Producers Association, NM Cattle Growers, New Mexico Association of Conservation Districts, and U.S. Environmental Protection Agency. Annually since 2000, the workgroup has organized and conducted an interagency CNMP workshop for consultants, dairy producers, Cooperative Extensive Service, other agencies, and NRCS. To date, approximately 100 people have taken the workshop. The workgroup strives to ensure that the CNMPs satisfy the requirements of the NRCS Field Office Technical Guide Standards, EPA National Pollution Discharge Elimination System (NPDES) CAFO Permit Nutrient Management Plan as well as the New Mexico Environment Department Ground Water Quality Discharge Permit requirements. The CNMP must be developed and approved by a Certified Conservation Planner-CNMP and certified specialists in Manure and Wastewater Handling and Storage, Land Treatment, and Nutrient Management. A list of those certified in state can be obtained from NRCS.

An 11-Steps to Comprehensive Nutrient Management Planning Brochure outlines the process:

Where to go for further assistance

Various state and federal agencies, as well as private consultants and industry groups, can help producers address water quality problems and develop nutrient management plans

- New Mexico State University Cooperative Extension
- USDA Natural Resources Conservation Service
- New Mexico Environment Department
- Local Soil and Water Conservation Districts
- NM Dairy Producers, NM Cattlegrowers Association, and other livestock commodity groups

See the government or white pages in your local phone directory or CNMP Fact Sheet for contact information.
www.nm.nrcs.usda.gov/technical/water/nmafo.html

1. Assess your operation and identify potential water quality problems and other resource concerns.
2. Evaluate storage requirements.
3. Test soil and manure.
4. Determine manure application rates, methods, and timing.
5. Calibrate application equipment.
6. Incorporate land management practices to reduce leaching and runoff and practices to reduce leaching and runoff and practices to address other resource concerns.
7. Consider other options for using manure.
8. Identify options for handling livestock mortalities.
9. Consider feed management to reduce nutrient excretion.
10. Keep records and properly operate and maintain structures and practices.

11. Review and update the plan.

The Nutrient Management Plans (NMPs) required for NPDES CAFO Permits are to be written and implemented by Dec. 31, 2006. The CNMP must satisfy the requirements of the NMP as well as the NMED Groundwater permit, federal, state, and local regulations. Assistance is available from NMSU, CES, NRCS, SWCD NMED, NMDA, Dairy Producers Association, local Soil and Water Conservation Districts, consultants, and other participating organizations. Producers need to have inventory data ready when asking for assistance. Proper and current soil and manure tests are essential to the nutrient management plan.

Limited Resource Producers Face Challenges, Opportunities

by Mike Delano, Roy district conservationist



As agricultural land gives way to subdivision, conservationists face increasing challenges in supporting good land stewardship.

Hard winters, long dry periods, and restricted capabilities to make a living may make limited resource farmers and ranchers feel they must overextend natural resources beyond their limits. Yet, in many cases, there is untapped potential that these limited resource farmers and ranchers can realize. To respond to this situation, however, it may take an extra effort on the part of the Natural Resources Conservation Service (NRCS) and soil and water conservation districts to reach out early and often to these producers.

According to Dwaine Nelson, National Agriculture Statistics Service, New Mexico Statistical Office state director, almost half (49.5 percent) of New Mexico's producers earn less than \$2,500 a year in sales. The most common assumption may be that these producers are only part-time farmers and ranchers, which is true. In 2002

some 8,152 New Mexico producers earned less than \$10,000 in sales from agricultural products. These same producers said that less than 25 percent of their household income was coming from farming. This accounts for more than half of New Mexico's 15,170 farmers and ranchers.

NRCS employees know that many of New Mexico's limited resource producers are families that have split the

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original land holdings to various heirs. A 320-acre farm belonging to one producer 15 years ago, may have been split seven years ago and 160 acres sold. Then five years later the 160 acres may have been divided between two heirs, so each had 80 acres. And, finally one family member split the 80 acres into five parcels among five siblings, so each has 16 acres. One or more of the five siblings may be trying to earn some part of a living from this small agricultural property.

Limited resource producers may feel they cannot manage their land like big operators do, yet a call to NRCS can address many problems. A limited resource producer may have a small ranch with gullies, mesquite, bare ground, and no grass. There is much that can be done in this situation.

By fencing and managing the time the livestock is on the rangeland, the rancher can begin to turn things around and

support recovery of the grass. Perhaps the Environmental Quality Incentives Program (EQIP), administered by the NRCS, can be used to cost share identified resource concerns such as brush control to treat mesquite infestations, and inter-seeding with legumes and grasses can be done. This will provide for better production and a more natural composition of the rangeland. Combined with fencing, and water development to improve grazing distribution, the range will get much needed rest and the resources will be adequately protected. The added benefit to wildlife is an extra bonus of conservation planning and application.

In this situation the limited resource rancher will find that even though the operation is small, the principles of conservation are the same as those for any land steward.

Limited resource producers may feel they cannot manage their land like big operators do ...

NRCS is there to assist the landowner find solutions to soil erosion, water erosion, plant production, and wildlife and livestock needs.

As the population grows across New Mexico, the size of land units is becoming smaller and smaller. Subdivision of land ownership can put a strain on the land and water resources. This makes it more important than ever that landowners practice good conservation and learn of their land area's potential. The limited resource farmer and rancher can achieve properly planned goals, and realize a

more productive farmstead or ranch through the practice of good conservation. NRCS can help them get there.

NRCS is as close to the limited resource producer as their nearest USDA Service Center. Bringing sound science to the limited resource farmer and rancher is part of NRCS's job. It is a task the agency shoulders well as it fosters good conservation on the land.

Many small New Mexico specialty farms thrive with good conservation



Plant Materials for Former Saltcedar Sites Being Developed

Reaching for Species Adapted to Fine-Textured Saline Soils



New seed production field of Alkali sacaton (*Sporobolus airoides*) producing 75 bulk lbs/acre the second year after planting.

The Los Lunas Plant Materials Center received funding in 2004 to begin a plant materials development project for the U.S. Fish and Wildlife Services through the Bosque del Apache National Wildlife Refuge. The goal of the project is to develop grass, forb, and shrub species adapted to fine-textured saline soils which are often found after saltcedar eradication activities in the southwest United States.

A number of large saltcedar clearing projects are being performed under the auspices of several soil and water conservation districts in New Mexico. Many cleared sites have deep alluvial water tables resulting from channel incision and flow management on the major rivers in the state like the Rio Grande and Pecos. This deep ground water and lack of flooding potential imply that many of these sites are not appropriate for revegetation with riparian plants but must be revegetated with non-phreatophytic xeric species which can persist on fine-textured saline soils.

Although several appropriate species are presently commercially available including alkali sacaton

(*Sporobolus airoides* ‘Salada’) and fourwing saltbush (*Atriplex canescens*), in particular the Vallis race, there is a need to develop commercial supplies of additional species to augment the species diversity of these sites.

Several species currently under development at the Los Lunas Plant Materials Center, giant sacaton (*Sporobolus wrightii*) and vine mesquite (*Panicum obtusum*), will probably prove appropriate for some of these former saltcedar sites, but their adaptation to salinity, aridity, and fine-textured soils will have to be further evaluated. Additional species which are presumed to have these adaptations will be identified, and seed collections will be made representing different populations.

Germination and growth under soil conditions typically present on former saltcedar sites will determine those species best adapted to these sites. These superior species or ecotypes will then begin the process of seed increase and cultivar release.

For further information contact Gregory Fenchel, Plant Materials Center manager, at (505)865-4684.

Grazing Strategies Can Support Lesser Prairie Chicken Nesting

by Marcus Miller, NRCS wildlife biologist

The plight of the lesser prairie chicken is pulled into focus every spring when the High Plains Prairie Chicken Festival is held in Milensand, New Mexico. This spring was no exception.

Currently the prairie chicken is a candidate for listing as a threatened species under the Endangered Species Act. Being a candidate species means that there is sufficient information available to warrant listing of the species but that listing is precluded by workload and higher priority species. Once common in the southern Great Plains, the prairie chicken now occupies only 44 percent of its former range in New Mexico – primarily due to loss of habitat.

Listing of the lesser prairie chicken as a threatened species could produce major economic impacts in New Mexico because this grouse lives in the heart of the state's oil and gas industry. Listing could cause state and federal agencies to curtail leasing lands for oil and gas exploration.

The decline in prairie chicken populations and threat to the economic health of some parts of New Mexico have brought together members of the ranching community, oil and gas industry, environmentalists, and agencies responsible for land management and resource conservation. The New Mexico State Land Office has withdrawn 105,000 acres near prairie chicken leks (sites where the unique mating rituals occur) from oil and gas leasing to support the recovery of the grouse's population. Private and public groups alike are taking action on behalf of the birds.

Natural Resources Conservation Service has been working with local ranchers to ensure protection and restoration of the prairie chicken's habitat which is the primary road to recovery of this unique species.

Good prairie chicken habitat and good ranching are totally compatible according to wildlife and range experts.

Grazing strategies can be devised which provide the residual cover needed by the grouse for nesting. Good grazing strategies also provide ranchers with reserve forage for droughts, reduce erosion, and improve rangeland health. These are practices that routinely increase the rancher's economic bottom line and make good sense not only from a conservation standpoint but from a financial one, too.

For more information about preservation and rehabilitation of prairie chicken habitat contact Marcus Miller, NRCS New Mexico wildlife biologist at (505)761-4432.



New Mexico NRCS Area Office Contacts:

Norman Vigil

Northwest Area

2132 Osuna NE
Albuquerque, NM 87113
(505)341-0074

Hollis Fuchs

Southeast Area

305 12th Street
Carrizozo, NM 88301
(505)648-4293

Ken Walker

East Area

918 Parkland Drive
Clovis, NM 88101
(505)762-4769

Cliff Sanchez

Southwest Area

406 North 6th Street
Socorro, NM 87801
(505)838-4259

Public Affairs

Natural Resources Conservation Service
6200 Jefferson NE
Albuquerque, NM 87109