



Contact information

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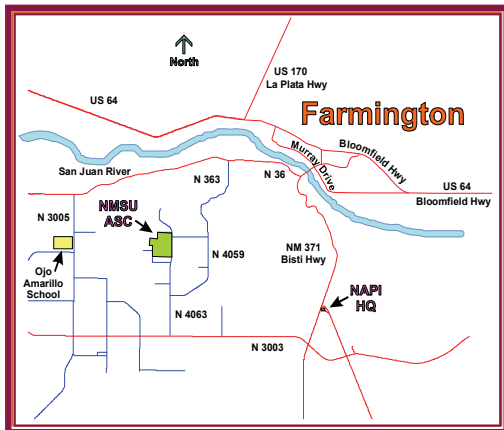
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Location

The NMSU ASC-Farmington
Xeriscape Research garden is open for public
viewing Monday - Friday, 8:00a.m to 4:00p.m.

Group tours available by calling the NMSU
Agricultural Science Center



Resources

NMSU Extension Plant Sciences

<http://eps.nmsu.edu>

NMSU Agricultural Science Center at Farmington

<http://farmingtonsc.nmsu.edu>

NMSU San Juan County Extension Office

<http://sanjuanextension.nmsu.edu>

NMSU ACES Publications & Videos

<http://aces.nmsu.edu/pubs>

CSU Agricultural Experiment State

<http://www.colostate.edu/dept/aes>

CSU Cooperative Extension

<http://www.ext.colostate.edu>

UNL Panhandle Research and Extension Center

<http://panhandle.unl.edu>

UW Dept. of Plant Sciences

<http://uwadmnweb.uwyo.edu/UWplant>

U.S. Bureau of Land Management
Farmington Field Office

http://www.blm.gov/nm/st/en/fo/Farmington_Field_Office.html

U.S. Natural Resource Conservation Service

<http://www.nm.nrcs.usda.gov>

Extension Plant Science

Four Corners Region Weed Science



Richard N. Arnold, M.S.

New Mexico State University

ASC Farmington, Admin. Superintendent

EPPS, College Professor

Extension Plant Science, 25% Appointment

Plant illustrations courtesy of USDA NRCS.

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NMSU and the U.S. Department of Agriculture cooperating.

Research/Impact



Weed Science Research

Since 1980, college professor, Richard N. Arnold has performed herbicide research for weed control on irrigated pasture grasses, small grains, corn, dry beans, sunflowers, alfalfa, onions and pumpkins grown in low organic course textured soils in northwester New Mexico. Over 29 years of ASC Farmington weed research, at on- and off-station locations, was made possible by securing external grant funding of \$900,000, thus benefiting NAPI, in-state, and out-of-state producers.

Extension Plant Science Program IMPACT in the Four Corners Region

- Approximately 60 participants, with interest in weed control, attend the annual Extension Plant Science Pesticide workshop in the Farmington, NM for pesticide applicator training and/or CEUs.
- In 2010, nearly 100 participants attended the Four Corners Weed Symposium which offers CEUs.
- Approximately 40 participants attended the Four Corners Weed & Pest Management in Alfalfa program.

Research-based Publications

- Over 220 publications have been written for NMSU Agricultural Research as Annual Progress Reports, Bulletins, Annual Data Reports or Western Society of Weed Science Progress Reports. All publications are written for agricultural producers benefit.

Produced Water Collaboration

In the past 5 years, we have been working with the Bureau of Land Management Farmington Field Office (BLM/FF0), Sandia National Laboratories, Biosphere Environmental Science Technologies (B.E.S.T.) and ConocoPhillips on the use of coal bed-methane produced water for native and non-native grassland establishment and the desalination of coal bed-methane produced water as a renewable water source for rangeland, domestic and wildlife animals, and for oil well drilling.

- 32 million barrels of coal bed-methane produced water at \$3.50/barrel, resulting in a \$87 million disposal fee.
- Using coal bed-methane produced water up to 8,000 total dissolved solids (TDS) research demonstrated that this water high in sodium and chlorine (NaCl) maybe used on several native and non-native grasses for establishment at disturbed well sites.
- Desalinating the water to 300 TDS levels this water could be used for irrigating rangeland, watering both domestic and wildlife animals and could further be used by companies for drilling purposes, without the expense of hauling and paying for domesticated water.

Through collaborative research efforts coal bed-methane produced water may become more beneficial for road maintenance, grassland establishment, and for domestic use.

Collaborators

NMSU Extension Weed Science from the Four Corners Region extends across a multi-state system and locally within New Mexico. Collaborators consist of agricultural industries, governmental agencies, and universities

BASF, Inc.

Basin Cooperative, Inc.

Bayer Crop Science, Inc.

Biosphere Environmental Science and Technology, Inc.

Conoco/Phillips, Inc.

Dow AgroScience, Inc.

DuPont Crop Protect, Inc

Monsanto, Inc.

Navajo Agricultural Products Industry

Pioneer Hi-bred International, Inc.

Syngenta, Inc.

Wilber Ellis, Inc.

New Mexico Department of Agriculture

Sandia National Laboratories, Inc.

U.S. Bureau of Land Management

Farmington Field Office

U.S. Natural Resource Conservation Service

Colorado State University

Agricultural Experiment Station

Cooperative Extension

University of Arizona

Tri-University Extension Service

University of Nebraska-Lincoln

Scottsbluff Research

University of Wyoming

Plant Science