Contact information

New Mexico State University
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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://uwadmwweb.uwyo.edu/UWplant

U.S. Bureau of Land Management Farmington Field Office

U.S. Natural Resource Conservation Service
http://www.nm.nrcs.usda.gov

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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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