New Mexico
Certified Crop Adviser

PERFORMANCE OBJECTIVES

2002 - 2003

FORWARD

Crop Advisers in New Mexico should be familiar with the basics of soil fertility, soil and water management, pest management, crop production issues, and the regulations surrounding the use of pesticides and fertilizers. Some topics are covered adequately by the international performance objectives and do not need to be repeated at the state level. However, there is still some overlap.

New Mexico certified crop Advisers should be familiar with the management of the crops listed below. New Mexico can produce a diverse assortment of crops but crops that are grown on small acreage, such as blue corn, lettuce, spinach, and black berries, are not included even though they are very important in the regions they are grown.

Major New Mexico Crops

Alfalfa	Cotton	Corn
Potatoes	Pecans	Chile
Onion	Wheat	Sorghum
Forages & other hay	Peanuts	Turfgrass
Other Vegetables	Dry beans	

The performance objectives for New Mexico certified crop Advisers are outlined in this document. The objectives attempt to cover the knowledge, concept, and skills that are needed when advising people on crop production issues. All certified crop Advisers should be able to put into practice the concepts that are presented here.

All continuing education credits must relate to the performance objectives outlined here or in the international handbook.

This document will be updated annually and reviewed by end users.

TABLE OF CONTENTS

New Mexico Certified Crop Adviser Performance Objectives

NUTRIENT MANAGEMENT

1.00 General Plant Nutrition

1.01 Describe nitrogen deficiency symptoms for the major NM crops.

1.02 Estimate the available nitrogen from organic sources under ideal conditions.
- Legume
- Manure
- Bio-solids (sludge)
- By-products/composts

1.03 Describe the impact of cropping systems on the nitrogen fertilization.

1.04 Identify phosphorus deficiency symptoms in major NM crops.

1.05 Describe how soil properties, cropping system, and soil test level affect phosphorus fertilization.

1.06 Describe how soil pH and soil texture affect soil retention and fixation of phosphorous.

1.07 Identify potassium deficiency symptoms in major NM crops.

1.08 Describe the effects of cation exchange capacity and soil texture on soil retention of potassium.

1.09 Describe how soil properties and cropping system affect potassium fertilization.

1.10 Identify toxicity symptoms of the following:
- Boron
- Sodium
- Chloride
- Urban pollutants
  - Carbon Monoxide
  - Ozone
- Natural gas leaks

1.11 Describe two methods of correcting secondary and micro-nutrient deficiencies.

1.12 Compare and contrast the advantages and disadvantages of fertilizer applications made by “water run” versus side dressed.

1.13 Compare and contrast the advantages and disadvantages of fertilizer applications made by “broadcast” versus banded fertilizer application.

1.14 List the steps involved in calibrating liquid and dry fertilizer for land application.

1.15 Calculate the amount fertilizer required to achieve nutrient requirements.

1.16 Recognize visual plant deficiency symptoms for iron, zinc, and sulfur.

1.17 Describe temperature effects on plant availability of:

nitrogen	phosphorus	potassium
calcium	iron	

1.18 Describe aeration effects on plant availability of:

nitrogen	phosphorus	potassium
calcium	iron	

1.19 Describe why selenium is important in plant nutrition in desert conditions.

2.00 Concepts of soil fertility

2.01 Describe why phosphorus has a low availability to plants in alkaline soils.

2.02 Describe how the following conditions affect the relative concentration of NH_4^+ and NO_3^- in the soil:

soil moisture content	temperature	pH
soil organic matter content	redox	

2.03 Describe the conditions under which denitrification occurs in irrigated soil.

2.04 Compare and contrast the availability of nitrogen, phosphorus, and potassium from organic versus inorganic sources.

2.05 List examples of quick- and slow-release fertilizers.

2.06 Differentiate between the conditions under which quick- and slow-release fertilizers are recommended.

2.07 Describe how irrigation affects nutrient availability.

2.08 Describe how tillage impacts nutrient availability.

3.00 Soil testing and plant analysis

3.01 List examples of why soil sampling should be done at the same time every year.

3.02 Describe the influence of landscape, past management patterns, and pest pressure when developing a soil sampling protocol.

3.03 Describe how plant tissue analyses can be used in a soil fertility program.

3.04 Describe why composite samples of plant tissue and soil is required for an accurate soil test analysis.

3.05 List the acceptable methods for determining plant available nutrients for crop production.

3.06 Describe where to soil sample for saline conditions under crop establishment conditions.

4.00 Nutrient sources and applications

4.01 Describe the environmental impacts on surface water quality resulting from improper nitrogen application and management.

4.02 Describe the environmental impacts on groundwater water quality resulting from improper nitrogen management.

4.03 Describe the environmental impacts on surface water quality resulting from improper phosphorus application.

4.04 Describe how denitrification effects nutrient application from synthetic and organic sources.

4.05 List the most abundant nutrients in municipal biosolids and barnyard manures.

4.06 Describe how application timing affects the use efficiency of:
nitrogen phosphorus gypsum

4.07 Describe the symbiotic interaction between soil bacteria and legumes.

4.08 Discuss the impact of 40 CFR 503 regulations on the application of municipal biosolids to cropland.

5.00 Soil pH and amendments.

5.01 Describe how the addition of elemental sulfur could potentially enhance P recovery.

5.02 Describe the effect on soil pH on the following fertilizers:

anhydrous ammonia	ammonium nitrate
ammonium sulfate	monoammonium phosphate (MAP)
urea	potassium chloride

5.03 Describe how soil pH, CEC, bulk density and texture affect gypsum requirement

5.04 Describe how soil salts influence the interpretation of soil pH.

5.05 Explain how liming and acidifying amendments raise or lower soil pH.

5.06 Describe how amendment particle size and purity affect application rate.

5.07 Describe field and laboratory methods for measuring soil pH.

5.08 Describe how test method influences interpretation of pH.

5.09 Calculate sulfur rates to effect a change in soil pH.

6.00 Organic Waste Management

6.01 Describe beneficial interactions between plant roots and soil fungi.

6.02 Describe decomposition processes of organic materials added to soil.

6.03 Describe how the rate of decomposition of organic material varies based on its composition.

6.04 Identify soil factors affecting the rate of decomposition of organic matter.

6.05 Define microbial immobilization and its impact on crop management.

6.06 Explain how organic matter affects soil aggregation.

6.07 Identify how organic matter interacts with the following ions and elements in the soil:

aluminum	calcium	iron	manganese
nitrate	phosphate	zinc	

6.08 Describe how the following affect the amount of organic matter present in soil:

management	texture	precipitation
temperature	topography	vegetation

6.09 Define bioremediation.

6.10 Define phytoremediation.

6.11 Describe the role of soil microbes in bioremediation.

6.12 Describe how soil microbes facilitate waste management in the following:

composting
lagoons
septic systems
land application of biosolids
land application of animal manures

6.13 List the common soil conditions and management practices used to prevent waste products from contaminating groundwater.

6.14 Describe the soil conditions and management practices used to reduce mobility of heavy metals in land applied municipal biosolids.

6.15 Describe how the following soil factors affect placement of a wastewater system:

soil texture
hydraulic conductivity of soil horizons
depth to water table
bedrock

SOIL AND WATER MANAGEMENT

1.00 Basic Soil Properties

1.01 Identify the major components that contribute to soil alkalinity.

1.02 Describe why CO_2 has an acidifying effect on the soil solution.

1.03 Define the following processes that occur at the mineral/solution and/or solution/atmosphere interface that control the fate and transport of chemicals in soils:

adsorption	ion exchange	complexation
precipitation	oxidation/reduction	volatilization

1.04 Explain how various tillage practices affect soil bulk density and pore space.

1.05 Given two of the following, be able to calculate the third: total soil volume, soil bulk density, and dry mass of the soil.

1.06 Describe the soil conditions conducive to surface crusting.

1.07 Describe management practices that can reduce surface crusting.

1.08 Describe how soil color indicates soil physical, chemical, and biological properties.

1.09 Describe how the following affect soil temperature:

soil color soil moisture surface residue

1.10 Describe how soil temperatures change at different depths in response to diurnal and seasonal temperature fluctuations.

1.11 Explain how soil temperature affects the rate of microbial and chemical processes in the soil.

1.12 Explain how soil aeration is affected by:

bulk density particle density porosity
structure

1.13 Explain how soil texture and/or structure affect the movement of soil gases.

1.14 Explain how the following soil characteristics vary with depth:

structure	texture	color
bulk density	porosity	

1.15 Describe the unique physical characteristics of sodic, saline and saline/sodic soils.

1.16 Identify special management options for sodic, saline, and saline/sodic soils.

1.17 List factors affecting mobility in soil of the following:

phosphates	sulfates	nitrates
heavy metals	organic compounds	

1.18 Differentiate between a saline soil and sodium affected soil

1.19 Define calcareous soil

1.20 Define acidic soil

1.21 Explain how soil nutrient levels and pH influence the overall abundance of soil organisms and their relative proportions.

1.22 Describe the impact of earthworm and insect activities on physical and chemical soil properties.

1.23 Identify soil and plant symptoms of soil compaction and impermeable layers.

1.24 List practices that can alleviate soil compaction and address impermeable layers.

1.25 Describe the role that environment, soil properties, management practices, crop productivity, and crop rotation have on the selection and use of tillage systems.

1.26 List the advantages and disadvantages of using cover crops and green manure in a crop rotation.

1.27 List cover crops and green manure crops that are appropriate to New Mexico conditions.

2.00 Irrigation Management

2.01 Define the permanent wilting point

2.02 Describe how soil texture affects the wilting point of soils

2.03 Use the soil moisture characteristic curve (soil water retention curve) to calculate available water.

2.04 Define:

perched water table	groundwater table
vadose zone	capillary fringe

2.05 List soil properties that affect water movement through the soil profile.

2.06 Determine the direction of water flow given soil water potentials.

2.07 Define Darcy's Law and its components.

2.08 Describe how preferential flow can affect ground water quality.

2.09 Describe how leaching potential differs between nitrate-nitrogen and ammonium-nitrogen in soils of different textures.

2.10 Explain how plant residues on the soil surface affect runoff and infiltration.

2.11 Describe how water infiltration and percolation are affected by:

bulk density	porosity	tortuosity
particle density	structure	soil temperature

2.12 Explain how irrigation or rainfall affects soil oxygen content.

2.13 Compare and contrast how irrigation can influence soil salinity under arid climates.

2.14 Describe the process and impact of laser leveling (land leveling) on irrigation efficiency.

2.15 Schedule an irrigation for center pivot irrigation of major NM crops given the crop stage of growth, estimated ET, and system limitations.

2.16 List the advantages of high flow turnouts under surface irrigation.

2.17 List the advantages of using LEPA (Low Energy Precision Application) of water.

2.18 List the advantages of subsurface drip irrigation.

2.19 Describe the calibration procedures for chemigation.

3.00 Soil Erosion

3.01 Describe how the following practices decrease soil erosion:

contour strip cropping	cover crops	cross wind ridging
contouring	row spacing	cross wind strip cropping
terracing	cross wind trap strips	surface roughening
vegetating waterways	wind breaks	surface residue
herbaceous wind barriers		

3.02 Describe the conditions under which the following conservation practices are used:

contour strip cropping	cover crops	cross wind ridging
contouring	row spacing	cross wind strip cropping
terracing	cross wind trap strips	surface roughening
vegetating waterways	wind breaks	
surface residue	herbaceous wind barriers	

3.03 Describe how to manage a field intended for reduced tillage when the chosen crop produces very little residue after harvest.

3.04 What are the acceptable erosion protection measures for use after a cotton field has met the plow down requirements.

3.05 What are key components of a buffer in order to be used for erosion control.

4.00 Site Characteristics

4.01 Explain the spatial limitations of soil surveys and importance of onsite evaluation.

4.02 Given a set of maps and aerial photos at different scales, identify features for a given site.

4.03 Identify the federal agency responsible for compiling soil survey data.

5.00 Water Quality

5.01 Describe the impacts of nitrogen and phosphorus management practices on water quality.

5.02 Describe water quality problems associated with irrigation.

5.03 Describe the purpose of vegetative buffers.

5.04 Describe water conservation practices used to reduce frequency of irrigation.

5.05 Describe water conservation practices used to reduce runoff and leaching.

5.06 Describe pathways by which agricultural operations can impair ground water quality.

5.07 Define the following components of water quality:

Sodium Adsorption Ratio (SAR)
Electrical Conductivity (EC)
Total Dissolved Solids (TDS)
pH
Total Maximum Daily Load (TMDL)
Fecal Coliform
Total Ammonia

5.08 List contaminants that are of concern to "ground water and surface water" under WQCC regulations for farm operations.

1.00 Weeds

1.01 Identify the following weeds by common name at any growth stage and classify each by life cycle (annual, biannual, perennial):

barnyardgrass	johnsongrass	puncturevine
bermudagrass	kochia	rescuegrass
bindweed	lambsquarters	russian knapweed
cattail, common	large crabgrass	russian thistle
climbing milkweed	london rocket	shepardspurse
Canada thistle	longspine sandbur	smooth crabgrass
dandelion	morningglory	spiny sowthistle
field sandbur	nightshade, silverleaf	spurge, ground
flixweed	nutsedge, purple	spurge, spotted
foxtail sp.	nutsedge, yellow	spurge, leafy
goatgrass, Jointed	pigweed sp.	spurge, ridgeseed
groundcherry, Wright	prickly lettuce	sunflower
horsetail	prostrate knotweed	tansy mustard
Jungle rice	spurred Anoda	scouring Rush
		yellow starthistle

1.02 Identify weeds in alfalfa or grass hay which are poisonous or may cause mechanical injury to livestock (these include the following):

Poisonous	Mechanical
western whorled milkweed	sandbur
cockleburr seeds and seedlings	wild oats
waterhemlock & poison hemlock	downy bromegrass
jimsonweed	foxtail barley
white or purple locoweed	cocklebur
larkspur	Russian thistle
houndstongue	needlegrass
arrowgrass	
showy milkweed	
lupine	

1.03 Describe how crop and weed growth rate affects weed/crop competition in cultivated crops.

1.04 Describe how germination and emergence affects weed/crop competition in cultivated crops.

1.05 Describe how seed dormancy affects weed/crop competition in cultivated crops.

1.06 Describe how vegetative reproduction affects weed/crop competition in cultivated crops.

1.07 Describe how shade tolerance affects weed/crop competition in cultivated crops.

1.08 List the noxious weeds of New Mexico.

1.09 Highlight the requirements of the noxious weed law.

1.10 List the advantages and disadvantages to crop production using preplant incorporated, preemergence, and/or postemergence herbicide applications.

1.11 Describe soil, climatic, and antagonistic factors which affect the performance of preplant incorporated, preemergence, and postemergence applied herbicides.

1.12 Describe the effects of soil moisture, ultraviolet light exposure, soil pH, soil texture, and herbicide application rate that effect persistence of the following herbicide families:

Dinitroanalines	Sulfonyl ureas
Phenoxys	Triazines

1.13 Identify field and management decisions that favor use of cultural, chemical, biological, and/or mechanical weed control.

1.14 List the advantages and disadvantages of cultural, chemical, biological, and mechanical weed control.

1.15 Describe the relationship between herbicide mode of action and weed control.

1.16 List the types, purposes, and advantages of herbicide adjuvants.

1.17 Classify a list of herbicides by mode of action.

1.18 List the effects of plant vigor, weed growth stage, herbicide effectiveness, and plant susceptibility to postemergence herbicides.

1.19 Identify general plant symptoms caused by the following herbicide mode of action groups:

Root and shoot inhibitors	Cell membrane disrupters	Growth regulators
Photosynthetic inhibitors	Amino acid synthesis inhibitors	Pigment inhibitors

1.20 List the factors that affect the performance of herbicides.

1.21 List the management, environmental, and crop factors involved in making herbicide recommendations.

2.00 Insect management

2.01 Identify plant damage symptoms caused by nematodes.

2.02 List cultural and chemical methods for nematode management.

2.03 Explain nutsedge concentration and nematode population

2.04 Identify and classify (by feeding habit, host crops, crop damage, insect life cycle, and type of metamorphosis) of the following:

Pests

Pink bollworm	Pea aphid	Looper sp
Lygus	cutworm	Alfalfa weevil
Flea beetle, 12-striped western	Stink bug, common	Thrips
mites	Corn earworm	cotton boll weevil
Fall armyworm	case borer	Corn rootworm
grasshoppers	greenbug	cereal aphids
Russian wheat aphid	psyllids	onion & flower thrips
potato leafhopper		

2.05 Identify the following beneficial insects and classify by prey:

Minute pirate bug	Brown/Green Lacewing	Lady beetles
Assassin bug	Collops beetle	Spider
Predatory wasp		

2.06 Identify insects in alfalfa or irrigated pastures that cause poisoning and/or mechanical injury to horses, sheep, and cattle.

2.07 Describe how the following cropping practices influence insect populations and damage:

early or late planting	variety selection
early or late harvest	Volunteer control
irrigation	crop rotation
tillage	weed control
fertilization	

2.08 Distinguish between contact insecticides, stomach poisons, and systemic insecticides.

2.09 List the factors for timing insecticide application including economic threshold, life cycle stage, time of day, etc.

2.10 What are the management strategies for pink bollworm control.

2.11 What are the management strategies for cotton boll weevil control.

3.00 Diseases management

3.01 List environmental factors affecting disease development.

3.02 Distinguish between systemic and non-systemic fungicides.

3.03 Identify each of the following diseases by host-plant symptoms:

Alternaria spp	Anthracnose	Karnal bunt
Crown gall	Curly top	bacterial leaf spot
Dollar spot	Downey Mildew	Ergot spp
Fusarium wilt	Late blight	Onion smudge
Stalk rot	Phymatotrichum root rot	Phytophthora root rot
Powdery mildew	Pythium spp	Rhizoctonia spp
Smut spp	Sooty mold	Verticillium wilt
Rust	fungal leaf spot	wheat streak
Take-all	bacterial leaf blights	cercospora
halo blight	white mold	Slime molds
Phytophthora pod rot	Xanthamonas	Pink root rot

3.04 Identify cultural management options for control of the plant diseases presented in the previous performance objective.

3.05 Describe general scouting, monitoring, and predictive techniques for the major New Mexico crops.

4.00 Pesticides Regulation

4.01 List the types of physical characteristics of pesticide formulation including:

Water soluble liquids	Pellets	Granules
Wettable powders	Genetic engineering	Water soluble powders
Emulsifiable concentrates	Water dispersible granule	

4.02 Find information on a label to determine proper pesticide use.

4.03 Identify the pattern form, relative droplet size, pattern overlap, and primary uses of the following nozzle types:

Standard flat fan
Even flat fan
Hollow cone
Flood tip

4.04 List factors affecting nozzle selection to achieve a desired application rate.

4.05 List the practices that prevent the development of pesticide resistant weeds, disease and insects.

4.06 Differentiate between pesticide resistance and pesticide tolerance.

4.07 Describe the effect of soil moisture and temperature on pesticide degradation.

4.08 Describe the effects of climate conditions, pesticide formulation and property, and additives on spray drift and spray volatilization.

4.09 Describe the principle methodologies of field scouting.

4.10 Describe cultural practices that can minimize or eliminate the use of pesticides.

4.11 Describe how populations of pests become resistant to pesticides.

4.12 Define the economic threshold of weeds, insects, and diseases for the major NM crops.

4.13 Define economic injury levels for weeds, insects, and disease for major NM crops.

4.14 List the advantages and limitations of integrated pest management.

4.15 Describe the effect of the following soil and pesticide properties on the movement of pesticides in soil and risk of entry into surface or ground water.

soil texture	leaching	soil erosion
soil erosion control practices	Pesticide adsorption	Pesticide degradation
Pesticide persistence	source of entry	depth to water table
Precipitation and runoff	Pesticide application rate	Pesticide application timing

4.16 Make economically and environmentally sound pest management recommendations when given a set of circumstances.

4.17 Describe calibration procedures for agricultural sprayers.

CROP MANAGEMENT

1.00 Organic Farming

1.01 Identify approved chemicals and fertilizer for organic farming practices

1.02 Describe the regulations for marketing organic produce.

1.03 Define what management practices must be present in order to quality as an organic farm.

2.00 Crop Adaptation

2.01 List the relative water requirements of major NM crops.

2.02 List the relative nutrient requirements for major NM crops.

2.03 Describe methods to improve plant growth on highly alkaline soils.

2.04 Describe methods to improve plant growth on saline soils.

2.05 Define the effects of temperature extremes on growth and development of crops.

2.06 Describe when crops are usually most susceptible to water stress.

3.00 Cropping systems

3.01 List the agronomic and economic considerations when deciding crop rotations for a given farm.

3.02 Describe how water use efficiency affects crop management decisions.

3.03 Compare and contrast cropping systems under irrigated versus dryland conditions.

3.04 List the advantages and disadvantages of using cover crops and trap crops.

3.05 Define sustainable agriculture

3.06 List the advantages and limitations of monoculture versus crop rotation.

4.00 Planting factors

4.01 List the consequences of seeding too early or too late.

4.02 List the factors that influence the planting of agronomically important crops.

4.03 Describe the recommended seeding depths of major NM crops

4.04 Describe environmental conditions that affect seeding depth of major NM crops.

4.05 List the advantages and disadvantages planting based on calendar date.

4.06 Predict crop response to a given planting depth and seeding rate.

4.07 Describe what levels of crop damage which would justify replanting.

4.08 List the factors that affect a decision to plant or replant.

4.09 Explain seed quality effects on crop growth and development.

5.00 Crop growth and development

5.01 Describe the heat limit day concept.

5.02 Describe the function of heat limit days in crop production systems.

5.03 Describe the growth stages of NM crops when they are most susceptible to environmental stress.

6.00 Harvest factors

6.01 Describe the factors that affect scheduling harvest of NM crops for best quality.

6.02 Discuss reasons for the use of defoliants/desiccant as a harvest aid.

6.03 Discuss the role of plant growth regulators in crop production.

ENVIRONMENTAL, SAFETY, AND REGULATORY COMPONENTS TO CROP PRODUCTION

1.00 Pollution potential

1.01 Describe how the following affect pesticide movement in soil:

Soil texture	Climate	Soil organic matter
Container disposal	underground storage tanks	burning
Pesticide properties	Cation exchange capacity	Storage

1.02 List NM best management practices for Nitrogen

1.03 Describe how soil testing and interpretation is protective of the environment.

1.04 Identify buffer zone for surface and ground water protection.

1.05 List the environmental and mechanical factors affecting spray drift.

2.00 Safety Issues

2.01 List the pathways for pesticide mode of entry into the human system

2.02 List precautionary measures that should be taken to avoid exposure to pesticides.

2.03 List procedures to follow if pesticide gets on the skin, in the eyes, mouth, or stomach, or is inhaled.

2.04 List examples of safe storage of pesticides.

3.00 Regulatory Issues

3.01 Locate the following information on a product label and MSDS sheet:

Toxicity level	Handling precautions
First Aid Procedures	Safety Information
Environmental hazards	

3.02 List what is required of producers for NM pesticide use reporting (1080's)

3.03 Describe the cleanup procedures for disposal of pesticides and containers.

3.04 List NM regulatory agencies and their duties.

3.05 List the requirements of 40 CFR 170 (Worker Protection Standards).

3.06 Describe the consequences of using pesticides not in accordance with labels.

3.07 Define the following with respect to air quality and identify which aspects are regulated:

Fugitive dust / PM 10
Drift
Volatility
Odor

3.08 Identify the state and federal agencies responsible for environmental issues related to:

wetlands
water quality (surface and ground)
Animal Feeding Operations

3.09 Identify which types of agricultural operations in New Mexico may require a ground water discharge permit.

3.10 Outline the GWQB process for submitting a Notice of Intent to Discharge for an agricultural facility.

3.11 Differentiate between New Mexico Water Quality Act and the Water Quality Control Commission (WQCC) Regulations (20.6.2 NMAC)

3.11b Identify the WQCC Standards relevant to agricultural operations.

3.12 List the general information required for a ground water discharge permit application.

3.13 List the basic components and requirements of a ground water discharge permit, including common construction, operational, monitoring, contingency and closure requirements for animal feeding operations.

3.14 Calculate nitrogen loading to agricultural land in accordance with GWQB methods.

3.15 Describe the intent and scope of U.S. Environmental Protection Agency National Pollutant Discharge Elimination System CAFO regulations versus NM Water Quality Control Commission regulations that apply to animal feeding operations.

3.16 Identify the key differences between a GWQB discharge permit and a "USEPA NPDES" CAFO permit.

3.17 Distinguish between nitrate and nitrate-nitrogen and how the different forms relate to 20.6.2.3103 NMAC ground water standards.

3.18 Describe the legal requirements for advising/recommending the use of restricted use pesticides.

3.19 Define surface waters of the State of New Mexico.

3.20 Define a point source discharge.

3.21 Explain the “agricultural storm water exemption” in the federal Clean Water Act as it applies to irrigated agriculture operations and point source pollution.

3.22 Describe the impact of proper management practices on the agricultural storm water exemption.

3.23 Describe USEPA and NMED responsibilities to the NPDES CAFO program in NM.