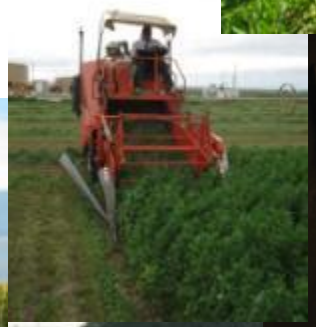
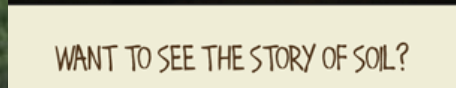
NM STATE UNIVERSITY

Extension In-Service
March 26, 2013
Las Cruces, NM





Extension Plant Sciences
Agronomy Faculty Introductions

Robert Flynn
Extension Agronomy and Soils

Overview

- **Soil Test Interpretation**
- Manure Management
- Identification and management of saline and sodic soils
- Certified Crop Adviser Program
- Irrigation Water Quality Interpretation
- Composting (Ag Wastes and Mortalities)
- General Agronomy and Nutrient Management
  - Alfalfa, Cotton, Corn, Chile, pasturegrass, rosemary, and others.

Areas of Interest

- Plant Nutrition
- Nutrient Management – all agronomic crops plus pecans, rosemary, chile, and others.
- Irrigation water management
- Improved nutrient efficiency
- Iron deficiency induced by high soil lime
- Copper toxicity
- K-12 outreach, train the trainer/teacher

Variety Trial Collaboration

- Forage corn, sorghum and sudangrass trials with Mark Marsalis
- Cotton
  - Coordinated through Artesia
- Alfalfa
  - Coordinated through Las Cruces

Forage & Grain Extension in New Mexico

Extension In-Service

March 26, 2013

Las Cruces, NM

Mark A. Marsalis
Extension Agronomist
New Mexico State University
Agricultural Science Center at Clovis

Overview

- **Extension Agronomist (Forages emphasis)**
  - **Extension (60%) ; Research (40%)**
  - **Extension Plant Sciences Department**
  - **Interim Superintendent (Since July 1, 2012)**
- **Sustaining the Dairy Industry**
  - **Over 265,000 dairy cows on 123 dairies**
  - **Large feed demand**
  - **High feed costs ; low milk prices**
  - **Lost 20+ dairies in last year**
- **Producing Feed with Less Water**
  - **Diminishing well flow**
  - **Extreme droughts**

Areas of Interest

- **Silage Production**
  - **Limited Irrigation**
  - **Reducing Inputs**
  - **Sorghum-Legume Intercropping**
  - **Ensiling Studies**




Variety Trials

- **Corn (Forage & Grain)**
- **Sorghum (Forage & Grain)***
  - **Dryland & Irrigated**
- **Wheat***
  - **Dryland & Irrigated**
- **Small Grain Forage**
  - **Wheat, triticale, oats, barley**

***Texas A&M Collaborations (Regional)**

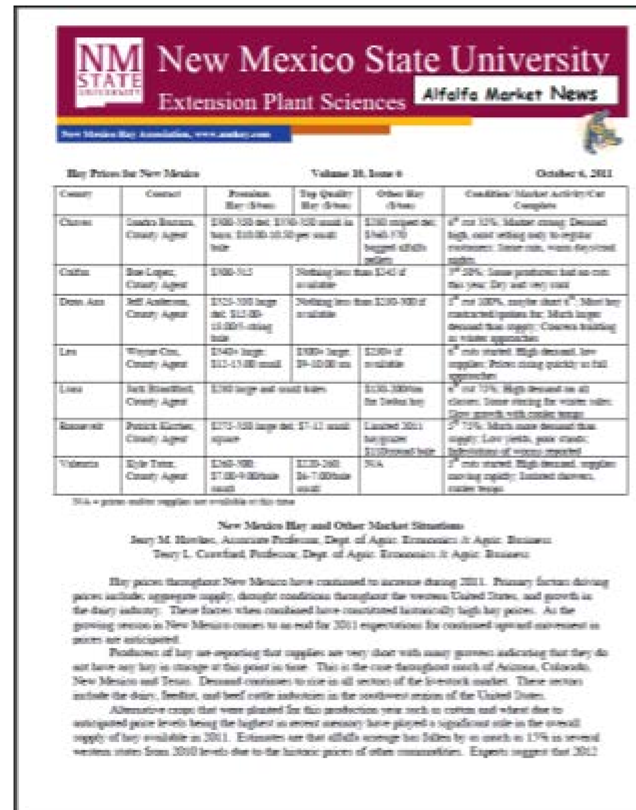
Field Days

- **Annual Field Day (August)**
- **Wheat Field Day (Spring)**
- **Meetings/Workshops**
  - **Silage Workshops (Summer & Winter Crops)**
  - **Alfalfa Workshops (w/Texas A&M)**
  - **Dryland Wheat & Sorghum Programs**
  - **Dairy Fest / Ag Expo**

Commodity Groups

- **New Mexico Hay Association**
  - **Southwest Hay & Forage Conference**
  - **NM Alfalfa Market News**
  - **Ex-officio director**
- **New Mexico Sorghum Growers Assoc.**
  - **Funding**
  - **Demonstrations**
  - **Annual Meeting**

- **New Mexico Wheat Growers Assoc.**
  - **Funding**
  - **Research**



New Mexico State University
Extension Plant Sciences
Alfalfa Market News

Hay Prices for New Mexico — Volume 10, Issue 6 — October 6, 2011

New Mexico Hay and Other Market Situations

Strip Till Demo –

Spencer Pipkin Farm

USDA NRCS
United States Department of Agriculture
Natural Resources Conservation Service

Herbicide Tolerant Sorghum

Grass Weed Control

Wheat Varieties –

Quay Co. Agent – Rex Rush Farm

Problem Solving

Newsletters –

Agent-Specialist

- **Critical Production Issues**
  - **Recurring**
  - **Out of the ordinary (emergency)**
- **Crop-Specific Topics**
  - **Forage-related**
- **Seasonal Themes**
  - **Planning for planting season**
  - **Water management**
  - **Harvest considerations**
  - **Pest problems**

De Baca County Cooperative Extension Service

Agriculture Producer Newsletter

A seasonal publication for De Baca County Livestock and Agronomy Producers brought to you by the De Baca County Cooperative Extension Service.

Late Summer/Fall 2007

Managing Last Cuts on Alfalfa...

Recommendations from Mark Marsalis, Extension Agronomist, Clovis Experimental Research Station...

As the alfalfa growing season starts to wind down, it is important for growers to understand how the last cuttings of their stands may affect winter survival and yields in subsequent years. Some growers may choose to have a frequent cutting interval during spring and summer in order to maximize forage quality of the hay. Others may choose to wait a little longer (first flower to 25% flower) between cuttings to improve stand persistence and longevity. Whichever the case, proper fall management is critical for future productivity.

Alfalfa must build root reserves prior to going into the winter, and cutting at frequent intervals and at certain times in the fall can reduce plant persistence and yield the following spring. Longer intervals should be allowed for late season cuttings for root reserve accumulation. In fall, either of two approaches should be taken: 1) alfalfa may be cut so early that enough regrowth occurs to replenish root carbohydrate reserves prior to first frost (in this case, a late cutting may occur at or just after a dormancy-inducing frost which means little or no regrowth or 'waste' of stored carbohydrates will occur) or 2) it should be cut so late that regrowth is minimal enough to not exhaust root reserves before freezing.

General recommendations for fall management are to let plants rest for 6 to 8 weeks between the last regular harvest and the first frost (27°F for 4 hrs). The 6 weeks leading up to first frost is critical to plant survival. Depending on when the first frost date is for the area (generally sometime in late October for De Baca County), and when harvests began in the spring, this rest period may be necessary for either the 5th or 6th cutting. The detrimental effect of a fall harvesting is lessened if regular cuttings earlier in the year are less frequent.

Also, leaving a 6-inch stubble will help insulate the soil and protect plants. Alfalfa producers thinking of making a late harvest should consider their need for extra forage and market demand contrasted with the possible risk of losing part of the alfalfa stand due to winterkill. In areas where winter temperatures may warm enough to break dormancy, less dormant alfalfas may grow only to get shut down by a freeze and this, too, wastes stored carbohydrates and is a season to be cautious about planting less dormant alfalfas—even if they are winter hardy—because this process is not desirable for the alfalfa stand. Factors that increase the risk of winter injury are:

- stand > 3 yrs old
- variety with high winter hardiness rating
- low soil fertility – particularly potassium (K)
- poor soil drainage/excessively wet soil,
- fall cutting at inappropriate time.

Inside this issue:

Special points of interest:

- A complete list of variety wheat trials for the west Texas/Eastern NM area
- Factors that increase the risk of winter injury to alfalfa
- Dates to remember
- NRCS Rain gauge monthly reports and NAP assessment

Forages Website

http://forages.nmsu.edu/ — NMSU: Forage Home

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New Mexico State University

New Mexico Forages

College of Agricultural, Consumer and Environmental Sciences

You are here: »NMSU »College of Agriculture and Home Economics »Cooperative Extension Service

NMSU Forages

- Forage Home
- NM Forage Facts
- NMSU Forage Team
- Resources
- Presentations
- Related Links
- News & Events
- Hay Market Reports
- New Mexico Hay Association
- Certified Weed Free Forage
- NM Dairy Extension
- How-To Publications
- Research Publications
- Off-Campus Science Centers
- County Extension Offices

Questions? Contact us. Can't find what you're looking for? Try searching the College site.

Search
NMSU Home

Welcome to the NMSU Forages Website. Forage crops comprise the greatest amount of cropland acres in New Mexico and their overall value in the state is second to none. Many species of forages are grown in the vastly diverse climates of New Mexico and are harvested in many forms to be used to feed a wide array of livestock. It is our hope that you find this website informative and useful.

Contained within this website, you will find information on both annual and perennial forages that are adapted and utilized in New Mexico as well as grazing systems common to the state. Resources include Extension and research publications, conference presentations, links to other forage-related websites, and contact information of forage and animal industry faculty and staff.

NMSU Forages
Department of Extension Plant Sciences
PO Box 30003, MSC 3AE
Skeen Hall Room N140
Las Cruces, N.M. 88003-8003
OR
Plant & Environmental Sciences Dept.
Box 30003 MSC 3Q
Skeen Hall Room N 127
Las Cruces, N.M. 88003-8003
URL: http://forages.nmsu.edu

Contact Information

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John Idowu – Extension Agronomist

New Mexico State University, Las Cruces
Email: jidowu@ad.nmsu.edu
Phone: 575-646-2571

Introduction

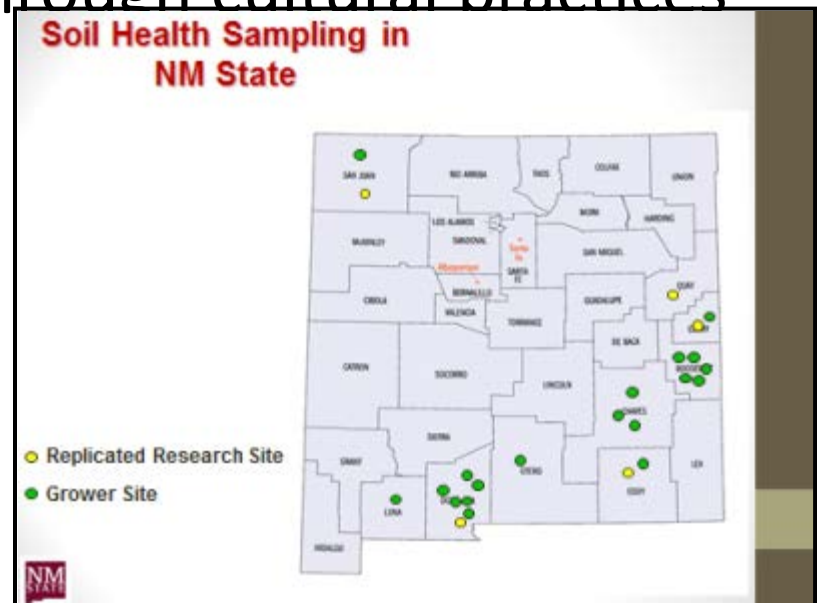
- Name: John Idowu
- PhD. (Land Management) – Cranfield University, UK (Silsoe College)
- Worked in Africa for several years
- Moved to USA in 2003 and worked at Cornell University (2004 – 2009) – Soil Health Assessment
- Moved to New Mexico State University in 2009

Major Research and Education Program Areas

- Soil Health Assessment and Management under Production Agriculture
- Field Crop Management (Cotton, Alfalfa, Corn, Peanuts)
- Sustainable Crop Production Systems (including organic agriculture)
- Tillage Management of Agricultural Soils

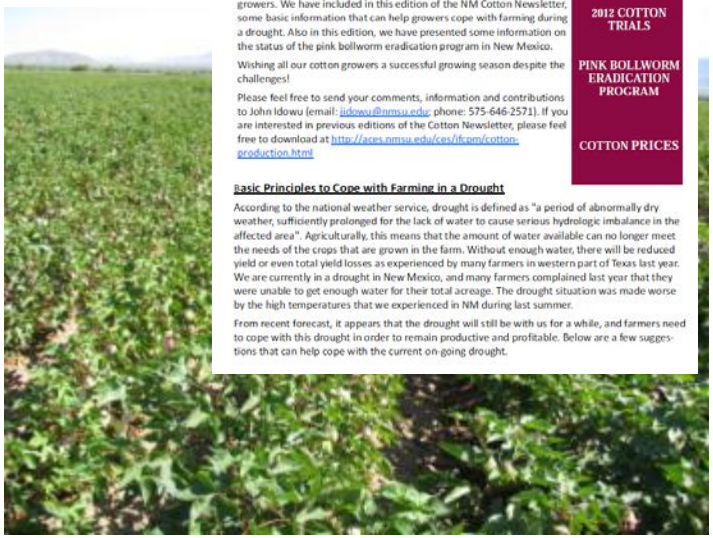
Soil Health Assessme

- Main focus
  - Assessing soil quality under different crop production systems
    - How soil quality is influenced by different cropping systems (positive or negative)
  - How to improve soil quality through cultural practices
    - Crop Rotation
    - Cover Cropping
    - Organic Amendments
    - Reducing Tillage



Field Crop Manageme

- Fine-tuning agronomic practices in cotton
  - Fertility
  - Planting date
  - Variety evaluation
- Evaluation of glandless cotton in NM
  - Growth
  - Pest pressure
  - Yield
  - Fiber quality
- Nutrient management in peanuts using chicken manure



New Mexico State University

Extension Plant Sciences — Cotton Newsletter

Cotton Newsletter, April 2012, Volume 3, Number 1

This is the first edition of the NM Cotton Newsletter for the year 2012 . The purpose of this newsletter is to present information and news items relevant to the needs of New Mexico cotton growers and other stake-holders in the cotton industry.

We are still in a drought this year and some counties have already re-ceived the news of reduced water allotment for this cropping season. It appears that this year, like the last one will be challenging for cotton growers. We have included in this edition of the NM Cotton Newsletter, some basic information that can help growers cope with farming during a drought. Also in this edition, we have presented some information on the status of the pink bollworm eradication program in New Mexico.

Wishing all our cotton growers a successful growing season despite the challenges!

Please feel free to send your comments, information and contributions to John Idowu (email: jidowu@nmsu.edu; phone: 575-646-2571). If you are interested in previous editions of the Cotton Newsletter, please feel free to download at http://aces.nmsu.edu/ces/ifcpm/cotton-production.html

NEWSLETTER HIGHLIGHTS

FARMING IN A DROUGHT

2012 COTTON TRIALS

PINK BOLLWORM ERADICATION PROGRAM

COTTON PRICES

Basic Principles to Cope with Farming in a Drought

According to the national weather service, drought is defined as "a period of abnormally dry weather, sufficiently prolonged for the lack of water to cause serious hydrologic imbalance in the affected area". Agriculturally, this means that the amount of water available can no longer meet the needs of the crops that are grown in the farm. Without enough water, there will be reduced yield or even total yield losses as experienced by many farmers in western part of Texas last year. We are currently in a drought in New Mexico, and many farmers complained last year that they were unable to get enough water for their total acreage. The drought situation was made worse by the high temperatures that we experienced in NM during last summer.

From recent forecast, it appears that the drought will still be with us for a while, and farmers need to cope with this drought in order to remain productive and profitable. Below are a few sugges-tions that can help cope with the current on-going drought.

Sustainable Crop Production and Organic Systems

- Adaptable Summer and Winter Cover Crops for NM cropping systems
- Green manure legumes for cropping systems in NM
- Moisture utilization under different cover crops
- Soil quality improvement due to cover cropping

Tillage Management of Soils

- Conservation tillage systems for soil quality improvement
- Strip tillage combined with cover crops for row crops (may help drought management)
  - Organic matter improvement
  - Soil moisture conservation
  - Soil structural improvement
  - Enhanced crop yields

Sangu Angadi
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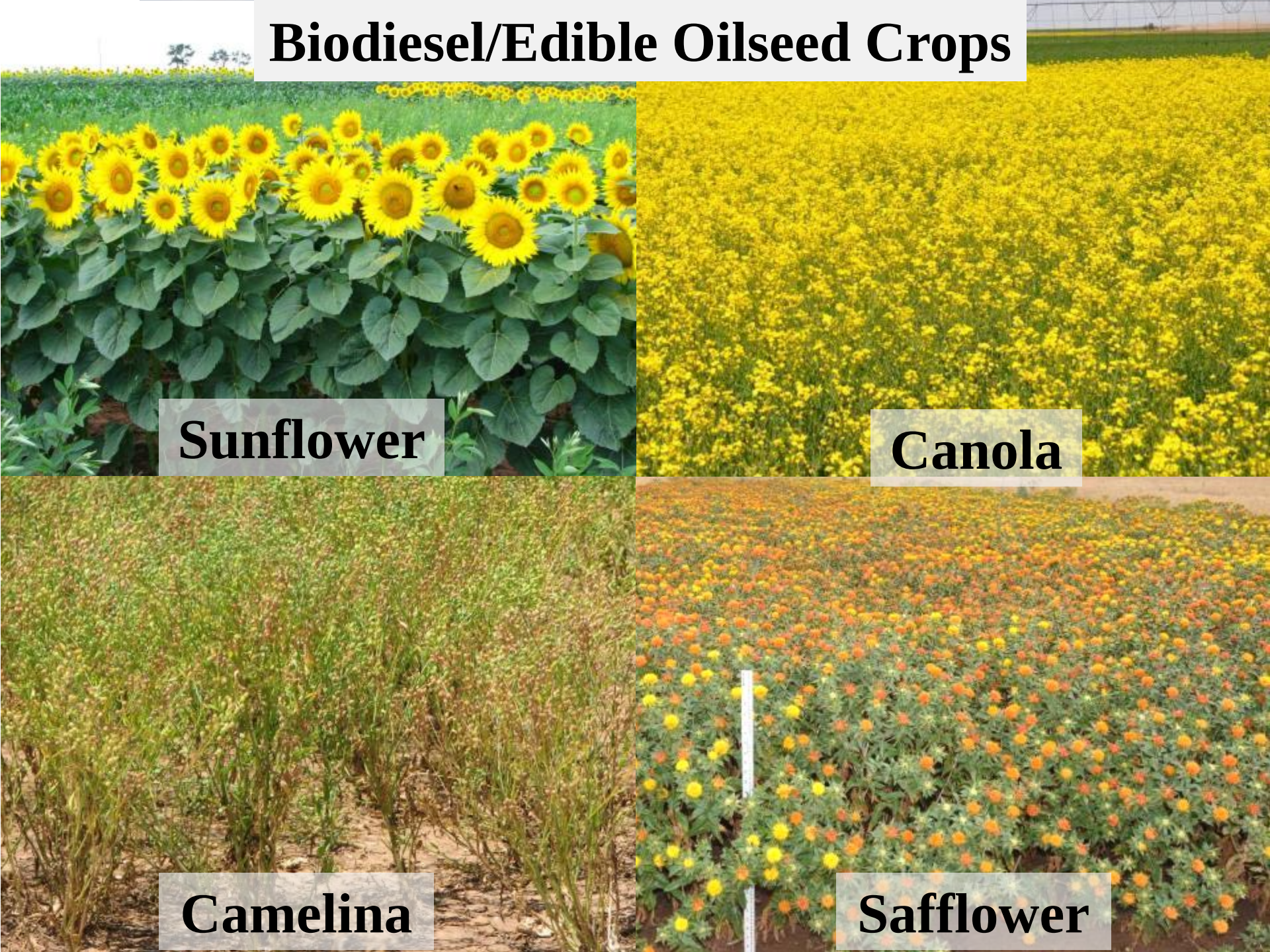
FOCUS

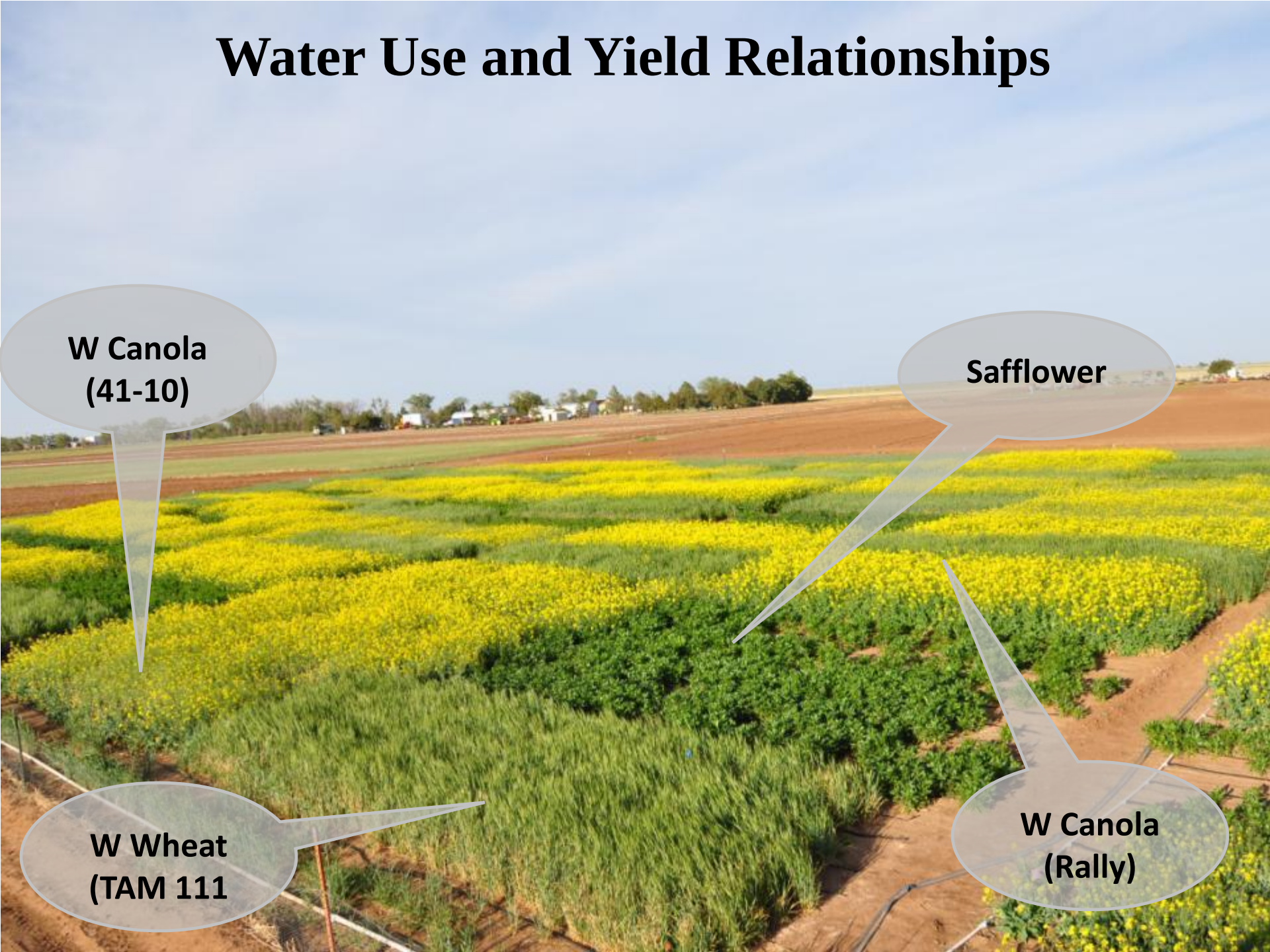
Multiple Strategies to Improve Water Efficiency of Agriculture

Alternative Crops and Cropping Systems

Biodiesel/Edible Oilseed Crops



Water Use and Yield Relationships



Strip Tillage and Stubble Management

Canola for Forage/Dual Purpose Crop

Thank You

Kulbhushan Grover

Sustainable Crop Production
Plant and Environmental Sciences
New Mexico State University,
Las Cruces, NM
Email: kgrover@nmsu.edu
Phone: 575-646-2352

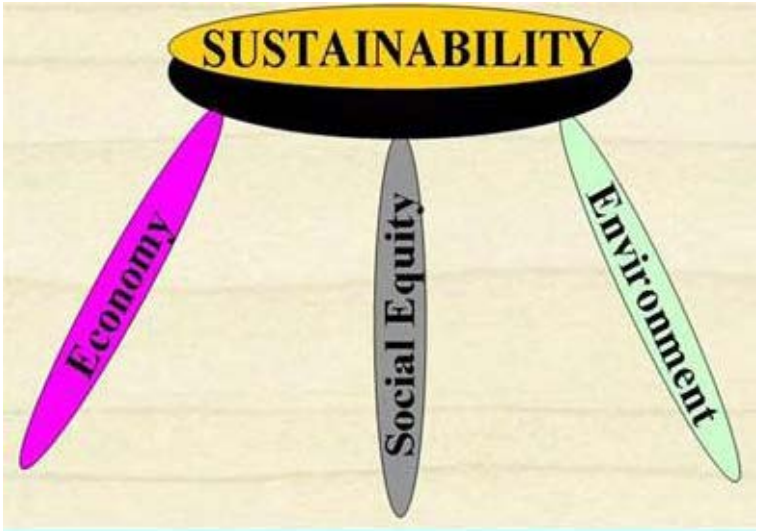
Overview

Assistant Professor of Sustainable Crop Production

- Teaching 50%
- Research 25%
- Extension 25%

Major Areas of Interest

- Sustainable cropping systems
  - Crop diversification
  - Crop rotations
  - Cover cropping
- Organic production systems
  - Transition to organic
  - Long term impact of organic practices on soil

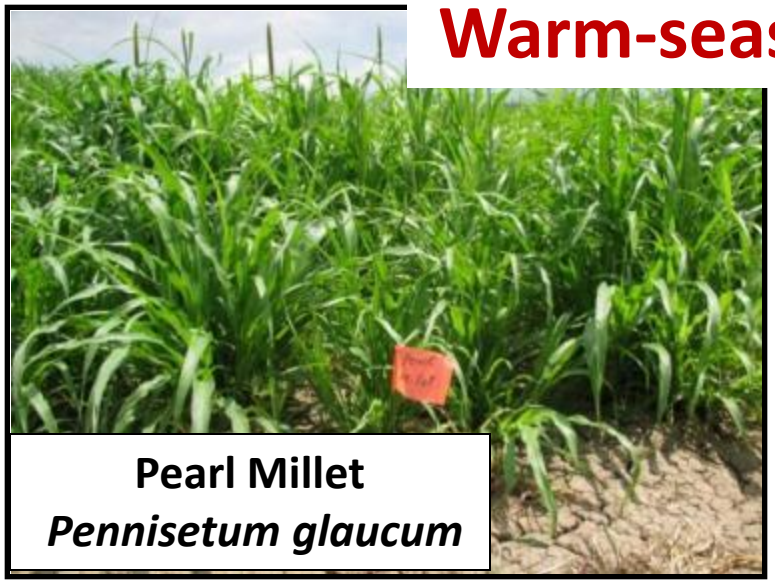


Major Areas of Interest

- Alternative specialty crops
- Small scale farming
- Soil quality improvement
  - Conservation tillage
- Water conservation

Cover Crops for Sustainable Cropping Systems

Warm-season Cover Crops



Pearl Millet
Pennisetum glaucum

Sorghum-sudan
Sorghum bicolor

Sorghum-sudan/lablab

Sesbania
Sesbania exaltalta

Cool season cover crops

Designing sustainable cropping systems

- Crop rotations for transition to organic
- Legume based crop rotation for winter cereal forages
- Chile rotated with cover crops

Broccoli as a potential crop for small scale farmers in southern New Mexico.

Green manure legumes for small farms in NM

Sustainability of organic peanut production systems in NM

Alternative Specialty Crops

- Low water needs
- Low inputs
- High industrial value
- Arid/semi-arid conditions suited

Field Days

Farm visits

Youth training in Sustainable Crop Production, Chaparral, NM

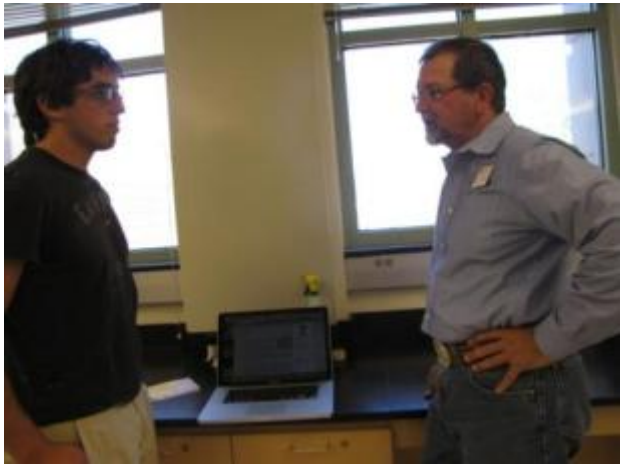
Integrating research, teaching and extension

Student-centered Field Laboratory

Field Day
Student-centered Field Laboratory

Student Centered Field Laboratory

Integrating research, teaching and extension



Integrating research, teaching and extension

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