



# Pecan Weevil

## CURRENT SITUATION

Western Pecan Growers Association  
New Mexico Pecan Growers Association  
New Mexico State University  
New Mexico Department of Agriculture



# Topics

- Basic Biology
- Exclusion
- Current Situation
- What's Next
- What Changed
- Funding





Natasha Wright, Cook's Pest Control, [Bugwood.org](http://Bugwood.org)

# Pecan Weevil –Basic Biology

Emerge from soil in late July/early August.

Begin spraying dough/gel stage.

Do not fly far if on their own if food source is near.

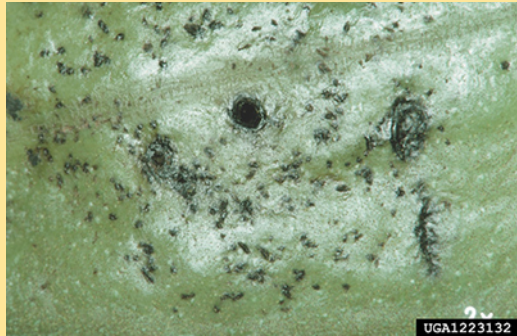
July through October peak emergence time for adults.

Larvae found in nuts early January of 2017 and as late as March SE NM.

May remain underground for as long as 3 years

Narrow treatment window requiring multiple insecticide

Primarily moved by infested nuts, equipment, trash, soil etc.



Pecan weevil feeding damage on a pecan nut shuck (Jerry A. Payne, USDA Agricultural Research Service, [Bugwood.org](http://Bugwood.org)).



Jane Breen Pierce New Mexico State University



Emily Fricke, NMDA



Gary Beverage, CPS



# MOVEMENT OF PECAN WEEVIL



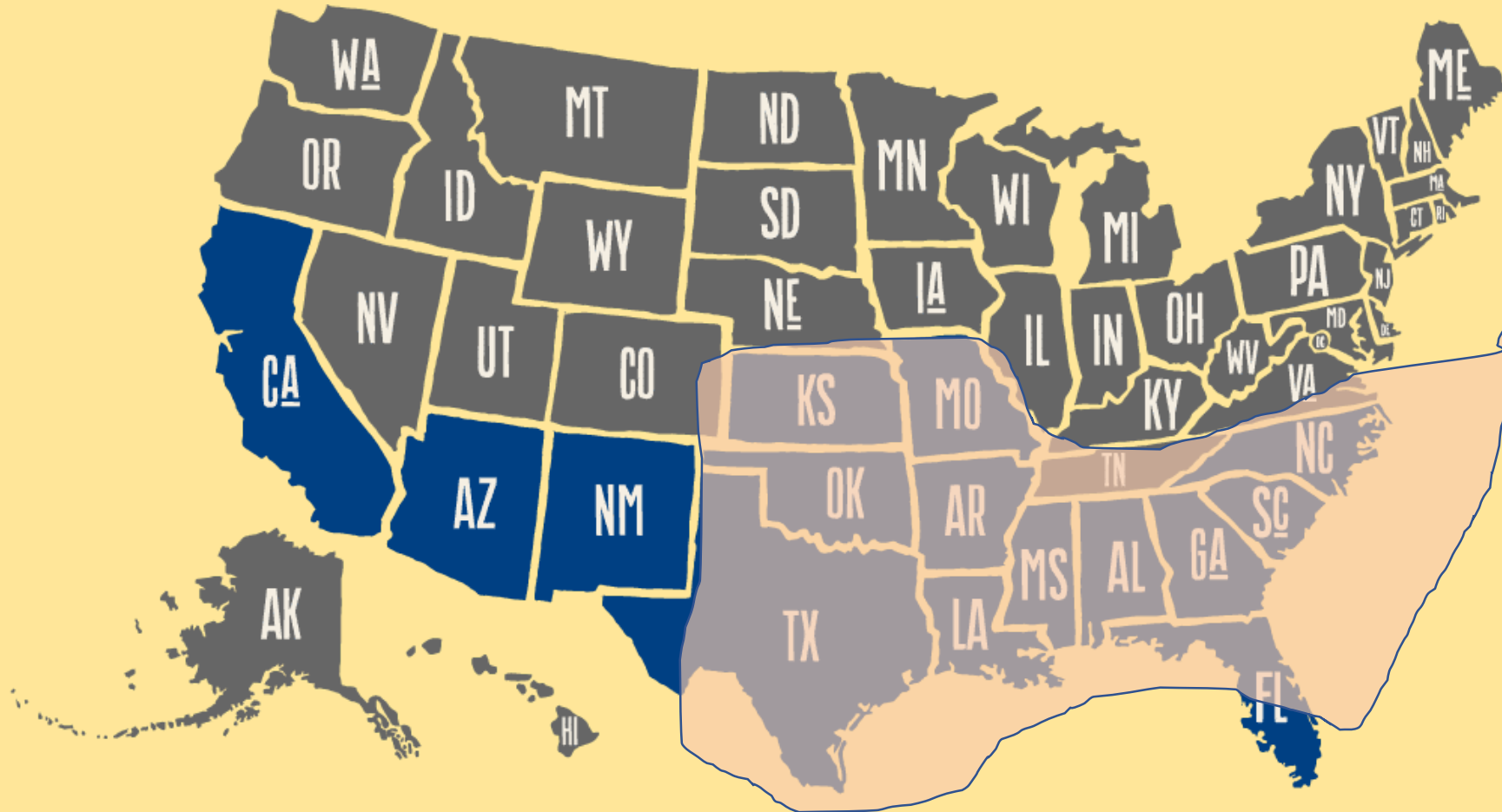
# Cost of Pecan Weevil Establishment

- Increased pesticide use
- Reduced profit
- Possibly reduced market options (in-shell)
- Organic growers significantly impacted
- Yard-tree crop significantly impacted





# Pecan Belt



# Pecan Weevil Prevention in the West

## (Legacy)

### -Western Pecan Growers' Association Priorities

- Education
- Research Direction
- Marketing
- Pecan Weevil

### -Pest Biology

### -Industry

- Limited Traffic Out of Infested Areas

### -Rules

- Departments' of Agriculture Quarantines

# Pecan Weevil Prevention (Legacy)

- Quarantines

Arizona, New Mexico, Texas, California, Mexico

- Adopted regulations to protect growers from pecan weevil establishment (exterior quarantines-Texas several NM counties)

- Texas has historically used interior quarantines (protect southwestern counties)

- Surveys

- Cleaning Plant and Buying Stations (Arizona, New Mexico & Texas periodically)

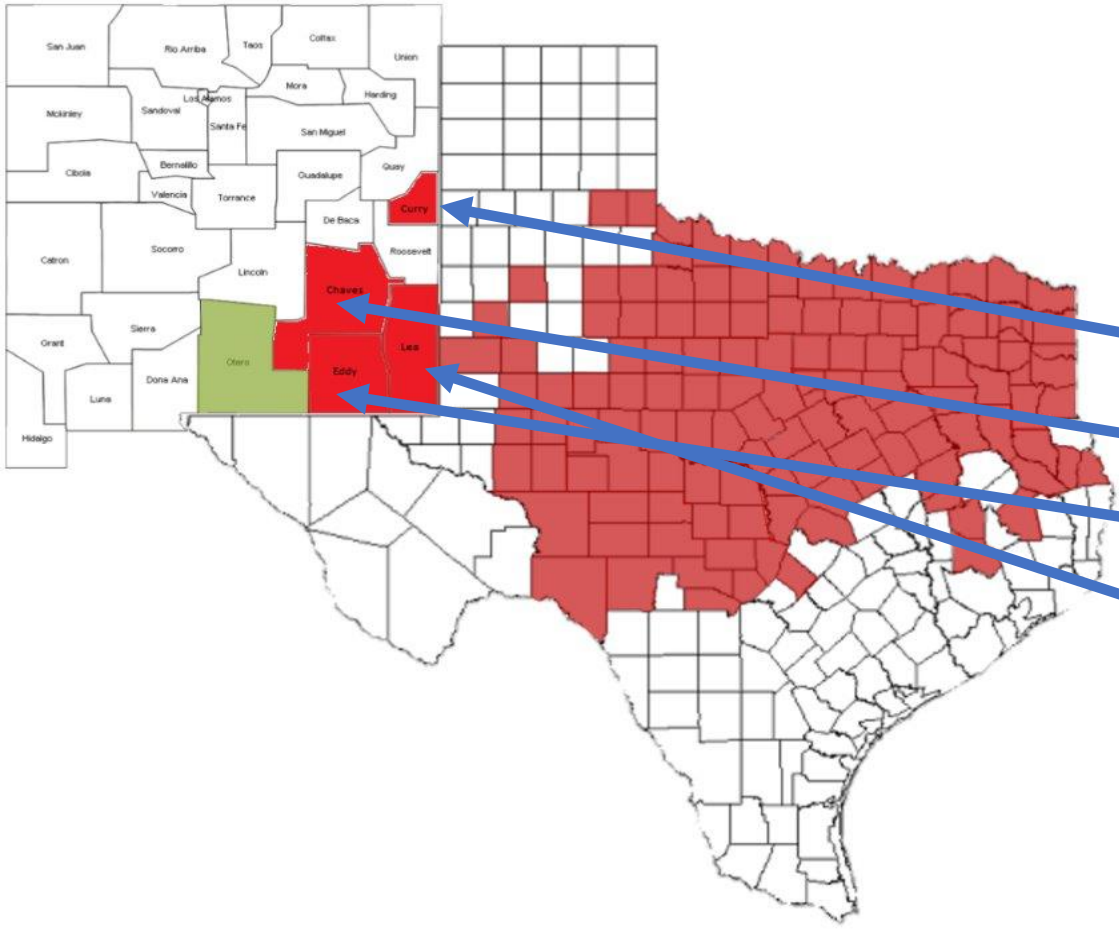


# Previous Pecan Weevil Introductions & Eradications (1970s-2005)

- Intermittent, Isolated
  - Tularosa (2)
  - Eddy (1) ?
  - Las Cruces (1)
  - Deming (1)



# Current Situation (2018)



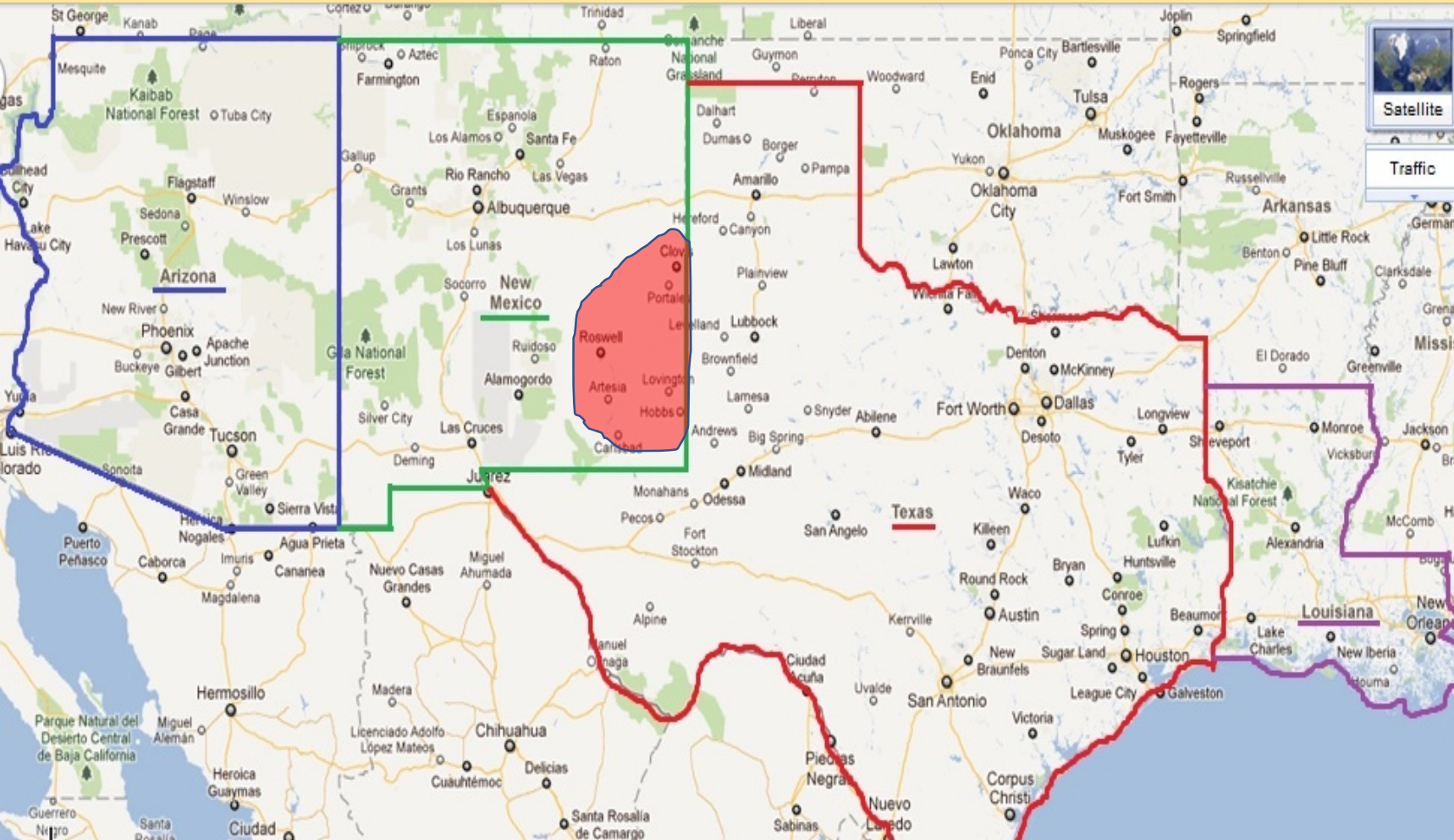
| <b>County</b> | <b>Number of Trees</b> | <b>Number of Properties</b> |
|---------------|------------------------|-----------------------------|
| Curry County  | 3                      | 1                           |
| Chaves County | 106                    | 44                          |
| Eddy County   | 347                    | 160                         |
| Lea County    | 543                    | 304                         |
| <b>Totals</b> | <b>999</b>             | <b>509</b>                  |



# Pecan Industry Decisions/Options

1. Do nothing
2. Quarantine Counties: Require cold treatment of in-shell nuts before transport to uninfested counties (NM)
3. Quarantine Counties : Provide options to safely move in-shell nuts to uninfested counties (NM)

# Options 1: Consequences of Do Nothing



1 Do Nothing

2 Require Treatment  
-Limited cold treatment  
-Limit shipment to the east



# Option 3: Quarantine Counties & Provide Options

## (2017 New Mexico Temporary Emergency Quarantine)

- Quarantined eastern New Mexico Counties (Curry, Chaves, Lea, Eddy)
- Shipped in sealed containers from quarantined New Mexico counties to directly to Las Cruces cold storage;
- Can be cold treated in eastern New Mexico counties and shipped anywhere with documentation;
- Records Requirement for individual or business who buys pecans must keep record of seller information including contact info, physical location of where pecans are grown, and amount purchased;
- Provided ability for growers to request exemptions



# 2016-17 Texas Department of Agriculture

- Increased enforcement of existing quarantines directed at specific Eastern New Mexico Counties





# 2017 Eradication Efforts

## 1. Expanded Number of Contractors Hired

- Spray home owners' trees in infested areas and create buffer zones
- Licensed pest control professional sprays trunks and lower branches
- Liquid Sevin and/or bifenthrin treatment for backyard pecans.

## 2. Increased number of traps

## 3. Continue support of commercial growers with infestations



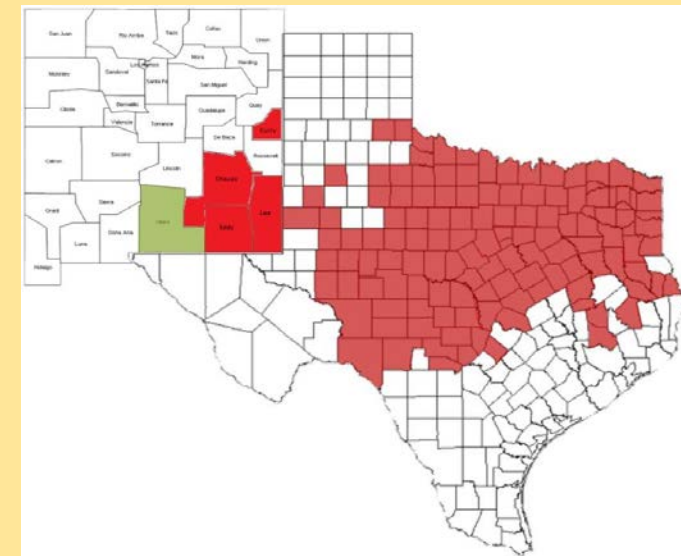
William Reid – Northern Pecans



Photo: Emily Fricke, NMDA

# 2018 Outlook

- Arizona-No Change in Current Regulations (guessing)
- Texas – Add additional eastern New Mexico counties to existing exterior quarantine language (guessing)
- Work with Texas A&M AgriLife on outreach efforts in adjacent infested counties



# 2018 Outlook (continued)

- New Mexico
  - Develop permanent interior quarantine
    - Collaborative effort with pecan growers
    - Hearing process
  - Expand eradication efforts
  - Develop long-range eradication strategy
  - Invest in research for a pecan weevil pheromone
  - New NM statute requiring all New Mexico buyers of in-shell pecans to be licensed
    - Requires buyers to collect information from sellers
    - Inspection authority provided to both law enforcement and NMDA
    - Provided penalty assessment authority
    - Rules to be drafted in collaboration with industry



# What Has Changed

- PW moved to Texas counties adjacent to pecan growing counties in New Mexico
- Price has resulted in the movement of yard nuts into commercial lanes
- Shelling industry has expanded in the area
- Increase in number of accumulators across the state



### NMSU/Extension

- Sandra Barraza
- Woods Houghton
- Wayne Cox
- J.W. Wagner
- Patrick Kircher

### NMSU/Research

- Larry Blackwell
- Tiffany Johnson
- Dr. Jane Pierce

### NMSU/Master Gardeners Program

### Texas A&M Extension

- Bill Ree
- Orlando Flores

### USDA/APHIS/PPQ

- Shawn Carson
- Robert Alexander

### NMDA/NMSU

- Emily Frike
- Ryan Hiles
- Alejandro Ruiz
- Tiffany Rivera
- Dr. Carol Sutherland

### Pesticide Contractors

- BugMan Weed and Pest Control
- Bob Reed Pest Control
- Taylor's Pest Control
- Jared's Lawn and Vector

### Survey Contractors

- Rose Garcia
- Ag Applications LLC

### Growers and Associations

# Funding Sources

- Western Pecan Growers Association (WTPGA, NMPGA, APGA, conference attendees)
- USDA-APHIS (New Mexico, Arizona-Surveys)
- New Mexico Department of Agriculture
- College of Agriculture, Consumer, Environmental Sciences
- Individual Pecan Growers



# Questions

