

# 2024 Orchard Weed Management



**W.E. Mitchem**

**Extension Associate**

**N.C. State Univ., Univ. of GA, and Clemson Univ., Cooperatively**

**Dept. of Horticultural Science**

**N.C. State University**

# Getting the Most Out of Non-Selective POST Herbicides

- Glufosinate
  - 32 to 48 fl. oz/A
  - Use with AMS
    - Spray grade water soluble fertilizer
  - Spray in full sun light
  - 2,4-D amine or Embed Extra is a great partner
- Paraquat
  - 2 to 3 pt/A
  - Use a non-ionic surfactant (0.25% v/v)
- Glyphosate
  - 41% form – use 1 qt/A
  - 51% form – use 24 fl. oz/A
  - AMS will improve control of large weeds or in dry conditions
  - 2,4-D amine or Embed Extra is a great partner
  - Dormant but can go late winter after bud break with hoods!



## PRE Herbicides with POST Activity

- Chateau (flumioxazin)
- Matrix (Rimsulfuron)
- Pindar GT
- Sinbar
- Diuron



### So What's Missing?

- Alion
- Pendimethalin
- Simazine
- Brake On
- Solicam



# Herbicide Timing for Bearing Orchards

- Fall
  - Timing
    - Halloween to Thanksgiving
  - Herbicide
    - PRE
      - Alion
      - Pindar GT
      - Flumioxazin (Chateau)
      - Rimsulfuron
      - Rimsulfuron + Simazine
    - POST
      - Glufosinate
      - Paraquat



## Herbicide Timing for Bearing Orchards

- Late Spring
  - Timing
    - PRE control from fall application begins to fail.
    - Emerging summer annual weeds are 2 to 3” tall
  - Herbicide
    - Non-selective POST
      - Glufosinate
      - Paraquat
    - PRE
      - Alion
      - Centrus
      - Sinbar + Rimsulfuron
      - Diuron + Rimsulfuron
      - Diuron + Brake On!
      - Diuron + Sinbar
      - Rimsulfuron + Pendimethalin

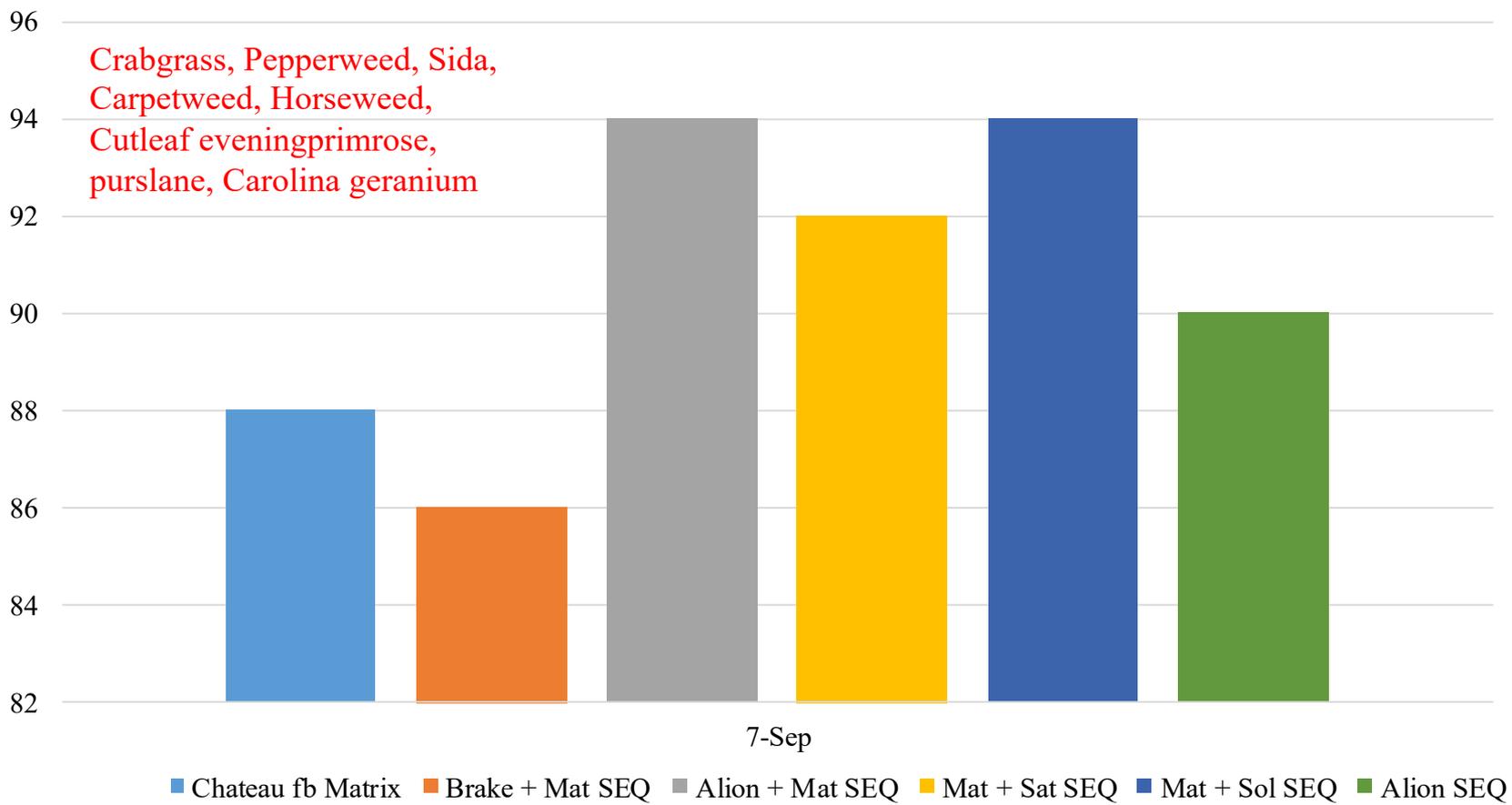


## No Fall Application....No Problem

- Winter fb May/June
  - Timing
    - Prior to bud break
  - Herbicide (PRE or PRE + NS-POST)
    - Chateau or generic fb Matrix or generic
    - Alion fb Alion
    - Alion fb Diuron
    - Centrus fb Centrus
    - Pindar GT fb Diuron
    - Matrix + Solicam SEQ
    - Matrix + Pendimethalin SEQ
    - Brake On + Matrix SEQ

# March/June PRE Application

% Bare Ground



Crabgrass, Pepperweed, Sida,  
Carpetweed, Horseweed,  
Cutleaf eveningprimrose,  
purslane, Carolina geranium

Applied March 23 fb June 21

# Herbicide Timing for Bearing Orchards

- Winter (Row Middle)
  - Timing
    - 6 to 8 weeks before bloom
  - Herbicide
    - Perennial grass row middle
      - 2,4-D amine
      - 2,4-D amine + Stinger
      - Stinger
    - Native vegetation row middle
      - 2,4-D amine + Rimsulfuron
      - 2,4-D amine + Motif 4L
      - Glyphosate + 2,4-D amine



## Row Middle Application of 2,4-D + Matrix



2,4-D @ 1 qt + Matrix @ 4oz

## Bermudagrass Control

- Poast
  - 2.5 fb 1.5 pt/acre
- Select Max
  - 16 oz twice
- Fusilade
  - 1.5 fb 1.0 pt/acre
- 1st application 4-6” of new growth
- 2nd application when regrowth occurs to 4”

## Johnsongrass Control

- Poast
  - 2 fb 1.5 pt/acre
- Select Max
  - 16 oz twice
- Fusilade
  - 1.5 fb 1.0 pt/acre
- 1st application 10” of new growth
- 2nd application when regrowth occurs to 8”

**Poast has a 25 day PHI**

**Fusilade and Select Max have a 14 day PHI**



## Weed Control in Newly Planted Orchards

- Protect the trunks
  - White exterior latex paint
  - Wax-coated milk cartons
- Maintain weed-free
  - Chateau EZ (flumioxazin) @ 6 to 8 fl. oz applied sequentially
    - Use with paraquat
  - Some other POST options
    - Broadloom – yellow nutsedge
  - Control Bermudagrass



## A “Good” Orchard Weed Control Program....



- Weed-free strip under the trees
- Maintains vegetation or plant residue in the row middle throughout the year to minimize erosion
- Rotates PRE herbicides
  - Promotes weed death and tree health
- Herbicides are applied in a manner that is timely for specific orchard events!
  - Eliminates winter annual broadleaf weeds
  - Maximizes radiant heat benefit
  - Prevents competition

# Questions?

