Peach Orchard Weed Management: A Recipe Approach



W.E. Mitchem

Extension Associate

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

Dept. of Horticultural Science



N.C. State University



Weed Management in Newly Planted Orchards

- Protect the tree
 - Exterior latex paint
 - Milk cartons



- PRE herbicides
 - Once soil has settled after transplanting
 - Chateau @ 6 to 8 oz (applied to weed-free soil)
 - Once initial application fails
 - Repeat Chateau application
 - Add paraquat + NIS
- Through summer (as needed)
 - Control annual weeds
 - Paraquat + NIS
 - Control perennial grasses
 - Clethodim (Select)
 - Fusilade
 - Control yellow nutsedge
 - Broadloom + COC



August 1st

Herb Rate*	Palmer Control	MG Control	Lg Crab Control	% BG
Ch 6 oz Fb Ch 6 oz	100 a	95 a	98 a	88 ab
Ch 8 oz Fb Ch 8 oz	100 a	98 a	100 a	94 a

^{*}March 29th and June 13th were the two application dates. Gramoxone and X-77 were included at each application time for POST weed control.

Weed Management in 2nd Leaf Orchards

- February/March (prior to bud break)
 - Chateau @ 6 to 10 fl. oz + Paraquat + NIS
 - 60 to 80 days of residual control
- May/June or later
 - Rimsulfuron @ 4 oz + Paraquat + NIS
 - If following Chateau @ 10 oz
 - Chateau @ 6 to 8 oz + Paraquat + NIS
- Summer
 - Use POST herbicides as needed
 - Clethodim (Select) + COC
 - Fusilade + COC
 - Broadloom + COC (last year to use)
 - Paraquat + NIS



Chateau needs to be avoided in 3rd leaf orchards

Weed Management Program for 3rd Leaf Orchards

- Starting first harvest year!
- Fall (of 2nd leaf orchards) PRE options
 - Simazine @ 1 to 2 qt + Paraquat + NIS
 - Chateau 6 to 8 oz + Paraquat + NIS
 - I said "avoid"... "DO NOT" was not said
- Winter (4 to 6 weeks Prior to Bloom)
 - Perennial grass middles
 - 2,4-D @ 1 qt
 - 2,4-D @ 1 qt + Stinger @ ½ pt (clover)
 - Native vegetation middles
 - 2,4-D @ 1 qt
 - 2,4-D @ 1 qt + Rimsulfuron @ 2 to 4 oz + NIS
 - Glufosinate @ 32 to 48 fl. oz + AMS
 - Glufosinate @ 32 fl. oz + 2,4-D @ 1.5 pt + AMS



Weed Management Program for 3rd Leaf Orchards

- Spring PRE options
 - Karmex + Sinbar (rate varies with soil texture)
 - Rimsulfuron @ 4 oz + Prowl H₂O @ 3 to 4 qt
 - Non-selective POST needs to be included
 - Glufosinate + AMS
 - Paraquat + NIS
- Summer
 - POST as needed
 - Paraquat + NIS
 - Glufosinate + AMS
 - Fusilade
 - Embed (2,4-D Choline)



Weed Management Program for 4th Leaf and Older Orchards

- Fall PRE options
 - Alion @ 3.5 fl. oz
 - Pindar GT @ 2 pt (5th leaf trees)
 - Chateau @ 6 to 8 oz
- Winter (4 weeks Prior to Bloom)
 - Perennial grass middles
 - 2,4-D @ 1 qt
 - 2,4-D @ 1 qt + Stinger @ ½ pt (clover)
 - Native vegetation middles
 - 2,4-D @ 1 qt
 - 2,4-D @ 1 qt + Rimsulfuron @ 2 to 4 oz + NIS
 - Glufosinate @ 32 to 48 fl. oz + AMS
 - Glufosinate @ 32 fl. oz + 2,4-D @ 1.5 pt + AMS



Weed Management Program for 4th Leaf and Older Orchards

- Spring PRE options
 - Karmex + Sinbar (rate varies with soil texture)
 - Rimsulfuron @ 4 oz + Prowl H₂O @ 3 to 4 qt
 - Alion
 - Karmex + Rimsulfuron
 - Sinbar + Rimsulfuron
 - Non-selective POST needs to be included
 - Glufosinate + AMS
 - Paraquat + NIS
- Summer
 - POST as needed
 - Paraquat + NIS
 - Glufosinate + AMS
 - Fusilade
 - Embed (2,4-D Choline)



Formulation Changes

- Gramoxone SL 3.0
 - 1.7 to 2.7 pt (lower rate)
 - Replaced Gramoxone SL 2.0
- Chateau EZ
 - Liquid formulation
 - 6 to 12 fl. oz
 - Rate is the same just fluid oz not a dry formulation





Brake On!... A New PRE Option for Stone Fruit

- New chemistry option for fruit crops
 - Fluridone
 - Originally developed for cotton in 70's
 - Revisited to combat glyphosate resistant Palmer amaranth
- Use Rates and Restrictions
 - 21 to 43 fl. oz/A
 - Orchards established 1 year or more
 - Do not use more than two consecutive years
 - Needs at least 0.5 inches of rainfall to activate
 - No POST activity
 - Works well tank mixed with other PRE herbicides
 - Sinbar
 - Karmex
 - Broad spectrum control of broadleaf and grass weeds
 - 30 day PHI
- Still working on rates and tank mix options





Broadloom 4L

- Newly planted and non-bearing orchards ONLY!
- Bentazon (Basagran)
- 1.5 to 2 pt/A + COC
- No more than 4 pt/A in 12 month period
- Newly planted trees must be protected
- Controls yellow nutsedge
 - Apply 2 pt/A + COC to 6 to 8" tall yellow nutsedge
 - Repeat application 7 to 10 days later
- Controls other problematic broadleaf weeds
 - Dayflower
 - Giant ragweed
 - Smartweed sp.











