Pumpkin Herbicide Options

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Pumpkin Weed Control Strategies

• Preplant or Preemergence Herbicides
  – Annual Grasses
  – Small Seeded Broadleaf Weeds

• Postemergence
  – Large Seeded Broadleaf Weeds
  – Escapes

• Cultivation
  – Escapes

• NT
  – Residue / Mulch – Weed Suppression
Pumpkin Weed Control

• Preplant Burndown
  – Aim 2EC @ up to 2 fl oz/A
  – Glyphosate
  – Paraquat

• PRE
  – Curbit 3EC @ 3 to 4.5 pints/A, PRE
  – Dual Magnum 7.64EC @ 1 to 1.33 pints/A (not over row)
  – Prefar 4EC @ 5 to 6 quarts/A, PPI
  – Sandea 75DG @ 0.5 to 0.67 oz/A, PRE
  – Strategy 2.1L @ 2 to 6 pints/A, PRE
Pumpkin Weed Control

• POST
  – Sandea 75DG @ 0.5 to 0.67 oz/A (?)
  – Poast 1.5EC @ 1 to 1.5 pints/A
  – Select Max 1EC @ 9 to 16 fl oz/A

• POST-Directed
  – Aim 2EC @ up to 2 fl oz/A
  – Glyphosate
  – Sandea 75DG @ 0.5 to 1 oz/A
  – Treflan 4EC @ 1 to 1.5 pints/A
Issues

• No “strong” stand alone products.
• Must combine all strategies.
• Limited POST options.
• Two and three way combinations are the best.
• What are the best options for the weeds you are trying to control?
Reflex

• Received Federal Tolerance in Fall of 2013.
  – Will be handled as a 24c Label;
    • But will be an indemnified label
  – Received indemnified label in some states during 2014.
  – Will work with VDACS to hopefully obtain a 24c label for VA. (Pumpkin, Tomato, Pepper, Watermelon)
  – Then you will go to FARM ASSIST to print the label.
Locations in 2011

- Montgomery County
  - NT
  - Drip Irrigation
  - Variety
    - ‘Magic Wand’

- Allegheny County, NC
  - NT
  - No Irrigation
  - Variety
    - ‘Aladdin’

- Chowan County, NC
  - NT
  - Center Pivot Irrigation
  - Variety
    - ‘Hijinks’

- Washington County
  - CT
  - No Irrigation
  - Variety
    - ‘Spartan’
Herbicide Treatments, 2011

1. UTC
2. Dual Magnum @ 1.5 pints/A
3. Dual Magnum @ 1.5 pints/A plus Reflex @ 1.5 pints/A
4. Dual Magnum @ 1.5 pints/A plus Reflex @ 2 pints/A
5. Dual Magnum @ 1.5 pints/A plus Reflex @ 3 pints/A
Herbicide Treatments, 2011

6. Dual Magnum @ 1 pints/A plus Command 3ME @ 1 pint/A plus Reflex @ 1.5 pints/A
7. Dual Magnum @ 1 pints/A plus Command 3ME @ 1 pint/A plus Reflex @ 2 pints/A
8. Dual Magnum @ 1 pints/A plus Command 3ME @ 1 pint/A plus Sandea @ 2/3 oz/A
9. Command 3ME @ 1 pint/A plus Curbit @ 3 pints/A
10. Command 3ME @ 21 fl oz/A plus Curbit @ 4 pints/A
Plant Stand – no./A
Montgomery County
Yield – no./A
Montgomery County

[Bar graph showing yield in Montgomery County for different locations, with values ranging from 5000 to 6000.]
Average Fruit Weight – lb/fruit
Montgomery County
Immature Fruit – %
Montgomery County
Yield – no./A
Allegheny County, NC
Yield – tons/A
Allegheny County, NC
Average Fruit Weight – lb/fruit
Allegheny County, NC
Immature Fruit – %
Allegheny County, NC
Overall Weed Control – %
Allegheny County, NC
Additional Treatments in Chowan County

11.  Alachlor @ 2 pints/A plus Command 3ME @ 1 pint/A
12.  Alachlor @ 4 pints/A plus Command 3ME @ 21 fl oz/A
Yield – no./A
Chowan County, NC
Average Fruit Weight – lb/fruit
Chowan County, NC
Locations in 2013

• Montgomery County
  – NT
  – Variety
    • ‘Apollo’
  – Did not get yield
    • Already windrowed part of the plot area.
  – No stand differences among treatments
  – Essentially 100% weed control from all treatments
  – Some late season ground cherry.

• Chowan County, NC
  – NT
  – Variety
  • Rep 1
    – ‘Apollo’
  • Rep 2
    – ‘Cronus’
  • Rep 3
    – ‘Field Trip’
  • Rep 4
    – ‘Magic Wand’
Herbicide Treatments, 2013

1. UTC
2. Dual Magnum @ 1.5 pints/A
3. Dual Magnum @ 1.5 pints/A plus Reflex @ 1.5 pints/A
4. Dual Magnum @ 1.5 pints/A plus Reflex @ 2 pints/A
5. Dual Magnum @ 1.5 pints/A plus Reflex @ 3 pints/A
Herbicide Treatments, 2013

6. Dual Magnum @ 1 pints/A plus Command 3ME @ 1 pint/A plus Reflex @ 1.5 pints/A

7. Dual Magnum @ 1 pints/A plus Command 3ME @ 1 pint/A plus Reflex @ 2 pints/A

8. Dual Magnum @ 1 pints/A plus Command 3ME @ 1 pint/A plus Sandea @ 2/3 oz/A

9. Command 3ME @ 21 fl oz/A plus Curbit @ 4 pints/A
Plant Stand – no./A
Chowan County, NC

![Bar chart showing plant stand numbers for different locations in Chowan County, NC. The chart displays the number of plants per area.]
Yield – no./A
Chowan County, NC
Yield – tons/A
Chowan County, NC
Average Fruit Weight – lb/fruit
Chowan County, NC
Immature Fruit – %
Chowan County, NC
Overall Weed Control – %
Chowan County, NC
Conclusions

• Reflex @ 1.5 and 2 pints/A appears to be relatively safe.
• Reflex @ 3 pints/A appears to cause some yield reduction.
• The three way combinations provided excellent weed control.
• Alachlor appears to be relatively safe and gave very good weed control.
Postemergence Trial, 2013

• Even with our best herbicide treatments we are always going to have some escapes.

• Postemergence Products
  – Sandea
  – Poast
  – Select Max
  – Generics

• Over the past couple of years we have toyed with the idea of Basagran.

• Grower friend in MS that had tried it a couple of years ago with good success.

• So we tried in 2013.
Basagran Trial, 2013

1. UTC
2. Basagran @ 1 pint/A plus NIS @ ¼% v/v
3. Basagran @ 1.5 pints/A plus NIS @ ¼% v/v
4. Basagran @ 2 pints/A plus NIS @ ¼% v/v
5. Basagran @ 1 pint/A plus COC @ 1% v/v
6. Basagran @ 1.5 pints/A plus COC @ 1% v/v
7. Basagran @ 2 pints/A plus COC @ 1% v/v
Basagran % Injury Results, 2013

Injury ratings taken 7 days after treatment
Basagran Results, 2013

• Crop oil concentrate caused more injury than non-ionic surfactant.
• By 21 days, almost no injury was observed.
• No differences in yields among treatments.
• Appears to be fine on Jack-O-Lanterns.
• Do not use on C. Maxima – Prize Winner
• Remember Basagran is not labeled for Pumpkins.
Questions?

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