Weed Management in Blackberry

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Topics

- Field establishment
- Identify weeds that occur with the highest frequency and relative abundance in alleys.
  - Discuss management options.
- Identify weeds that occur with the highest frequency and relative abundance in planting holes.
  - Discuss management options
- Chemical pruning

Field Establishment

- Try to maximize weed control, especially of perennial weeds, prior to crop establishment.
  - Repeat herbicides and tillage
- Glyphosate applications are an effective option
- Use plastic mulch or tarps to control in-row weeds
- Plant turf or cover crops between raised beds as quickly as possible to suppress weeds.
- Maintain a weed free zone on edges of bed.

Repair Holes or plastic punctures as weeds will emerge in those areas and cause long-term issues.

Minimize opportunities for weed recruitment.

Field Establishment

Minimize transplant hole size as the larger the hole the greater the opportunity for weed emergence.

Weed Management In Alleys

Brazilian Pusley
Frequency: 93%

Crabgrass
Frequency: 86%

Cutleaf primrose
Frequency: 79%

Carpetweed
Frequency: 79%

Goosegrass
Frequency: 64%


Ground cover

Edge of Alleys

PREEMERGENCE

- Simazine (Princep):
  - New and established plants
  - Annual broadleaf and grass weeds
  - Spring before bud break or fall after harvest
  - Low risk
- Norflurazon (Solicam):
  - Established plants only
  - Only on dormant plants
  - Annual grasses and broadleaves
  - Higher risk
- Terbacil (Sinbar):
  - Established plants only
  - Before fruit set or after harvest
  - Annuals and some perennial weeds.
  - Do not allow to touch foliage
  - Higher risk
- Oryzalin (Surflan):
  - Any growth stage / repeated applications
  - Annual grasses and broadleaf weeds
  - Low risk

POST-EMERGENCE (edge of mulch)

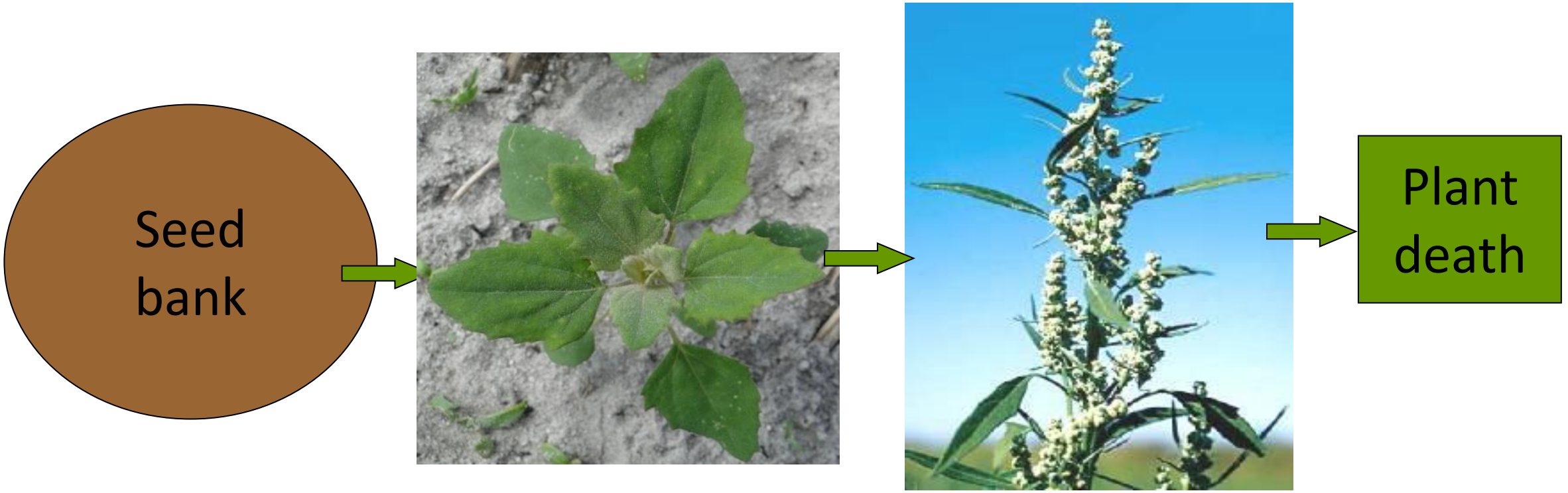
- Glyphosate
  - Annual and perennial weeds
  - Drift can cause serious damage
  - Use of wipers may be a safe alternative
- Paraquat (Gramoxone)
  - Annual weeds, suppress perennial weeds
  - Do not allow to contact foliage
  - Be aware of supplemental training required prior to usage
- Carfentrazone (Aim)
  - Any growth stage
  - Annual broadleaves
- Clethodim (Select)
  - Rate varies with product. Read label
  - Use low rates for annual weeds but high rates for perennials
  - Apply when 3-5 leaves / prior to flowering
  - Add non-ionic surfactant

Weed Size Matters

Most grass herbicides (Select, Intensity etc.) work best if the grass is:

- ≤ 2-6 inches tall
- 10 cm diameter for grasses in tufts
- Not flowering

Weed Size and Growth Stage Matter



Foliar Retention Matters

- Inadequate volumes lead to poor coverage
- Excessive volumes leads to dilution and run-off
  - High translocation (glyphosate) – partial coverage
  - Low translocation (paraquat) – complete coverage

Weeds in planting holes

- Compete with crop for resources
- Host pests and pathogens
- Hinder harvest operations

Crabgrass
Frequency: 79%
Relative Abundance: 34

Cutleaf Evening Primrose
Frequency: 57%

Brazilian Pusley
Frequency: 57%
Relative Abundance: 28

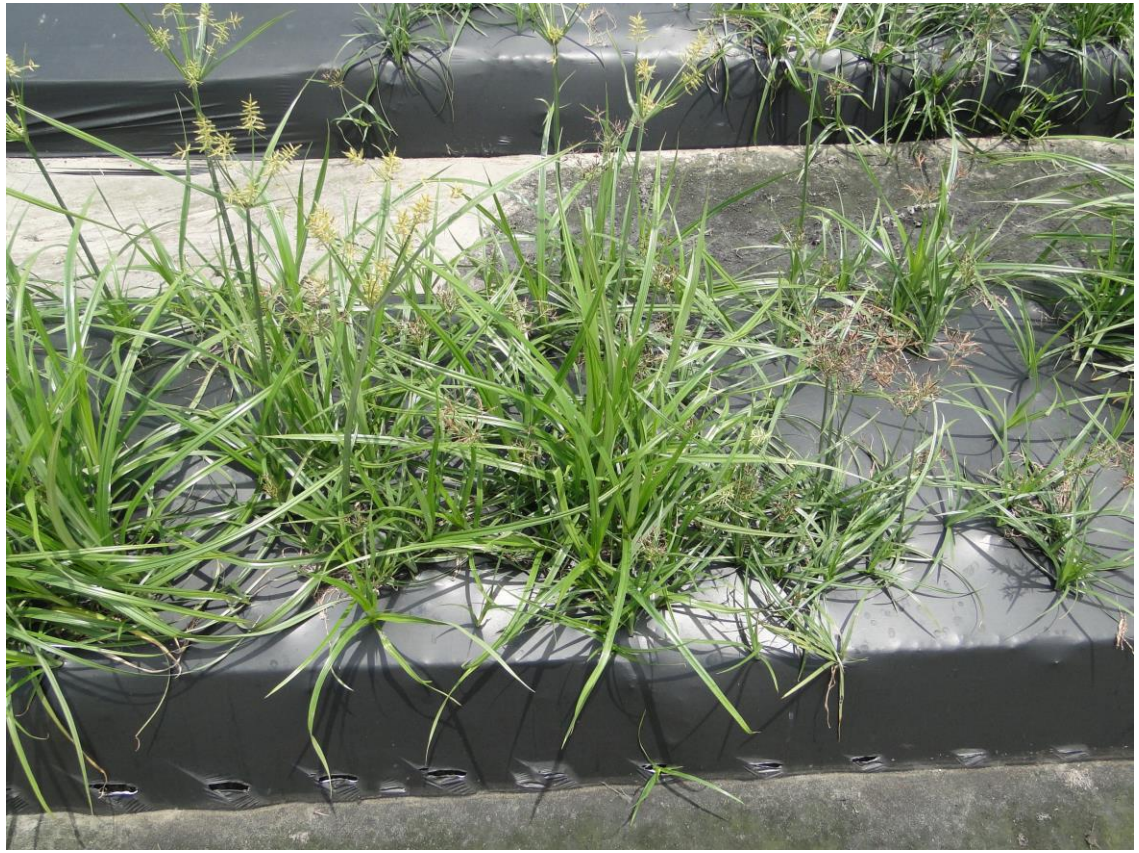
Common Purslane
Frequency: 50%

Carpetweed
Frequency: 43%

Cudweed
Frequency: 43%

dog fennel
Frequency: 43%

Goosegrass
Frequency: 43%
Relative Abundance: 14



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Weed Control in Planting Holes

Handweeding is an effective but labor-intensive option.

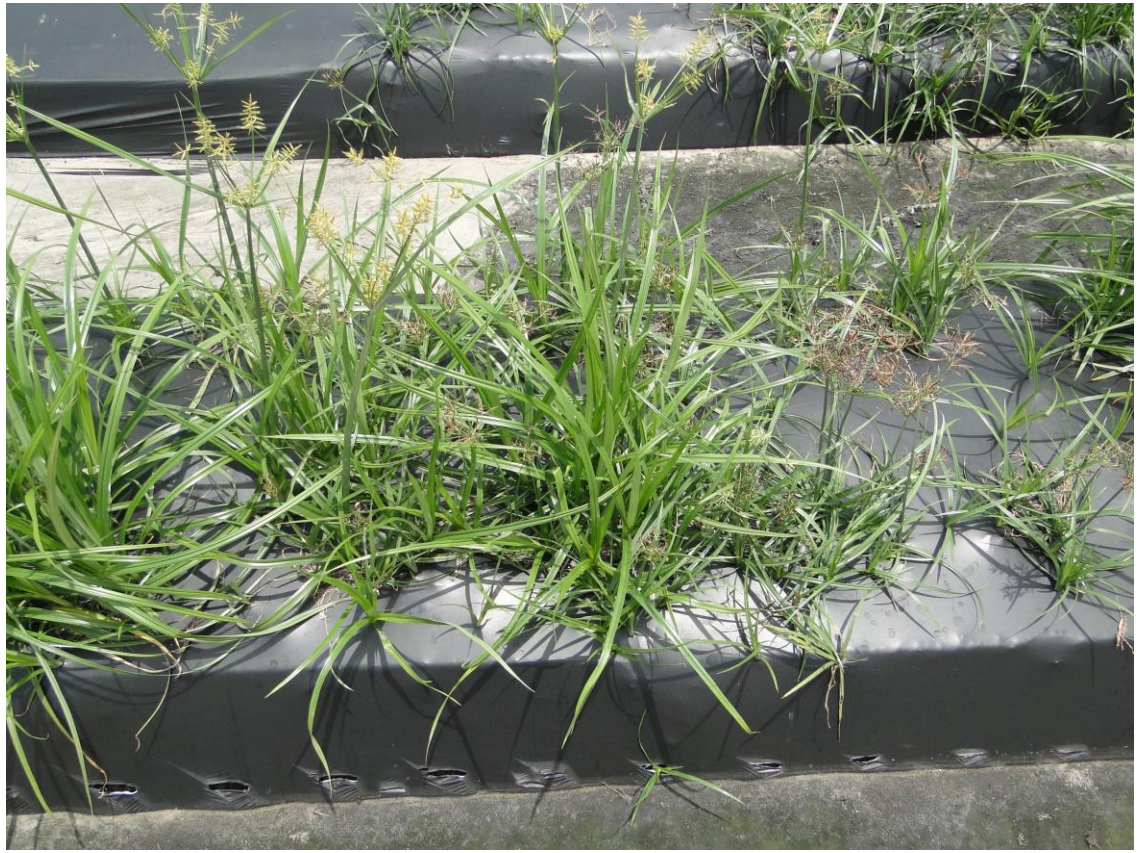
Most preemergence herbicides have not been tested in planting holes in Florida fields.

Need for evaluation of preemergence herbicides for use in planting holes

Planting Holes

PREEMERGENCE

- Simazine (Princep):
  - Apply to orchard floor and avoid fruit, foliage, stems or trunks.
  - Avoid use on sandy soils.
- Norflurazon (Solicam):
  - Avoid contact with fruit or foliage
- Terbacil (Sinbar):
  - Established plantings
  - Do not spray foliage



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Halosulfuron (Sandea):

- Established plants only
- Apply to actively growing sedges and some broadleaves
- Apply before they flower

Relative Abundance: 18

Glyphosate (Roundup):

- Apply before seedheads form
- Apply when actively growing

Nutsedge Management

Purple Nutsedge Life Cycle

0 weeks

4-6 weeks
(new tubers)

8-10 weeks
(new tubers)

Nutsedge Management

- Wipe with glyphosate at 1-2%
- Avoid contact with crop foliage
- Wipe when nutsedge has 3-5 leaves and prior to flowering
- Treat repeatedly
- 4-6 weeks needed for nutsedge to double population size


Ideal Scenario

Avoid build-up of soil and residue on the mulch as this can provide conditions necessary for weed growth and breakdown of mulch.

Weed Control in Planting Holes

- Even when you do everything correctly some handweeding will be needed in the absence of preemergence herbicides
- Goal is to minimize need for handweeding

Integrated Weed Management

- Effective use of mulch material with minimal hole size
- Establish crop canopy
- Establish inter-row mulch
- Use pre- and post-emergence herbicides along mulch edges
- Handweeding as needed