



# Managing Weeds in Lavender

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# Outline

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- Weed Terms
- Herbicides
- Land Preparation
- Mulching
- Weed Prevention
  - Creep into the row
  - Weeds in the planting holes



# Weed Terms

- Integrated weed management: controlling weeds using an integrated approach that relies on numerous strategies and appropriate timing
- Weed types
  - Broadleaf = dicots
  - Grasses
  - Other weeds: e.g., sedges, horsetail
- Life cycles
  - Annual = emerge from seed every year
  - Biennial = year 1 = grow vegetatively, overwinter as storage organ, year 2 = set seed
  - Perennial = re-emerge from storage structures each year. May or may not set seed
- Contact = kill foliage they come in contact with
- Systemic = kill all parts of plant even if not contacted directly
- Post-emergent = used after the weeds have emerged

# Registered Herbicides



- Non-cropped areas (empty fields):
  - Glyphosate – control of most grass and broadleaf weeds down to the roots
- Row-middle applications (burndown):
  - Ammonium salts of fatty acids (Axxe)
  - Caprylic/Capric acids (Biolink)(OMRI listed)
- Over crop applications:
  - Clethodim (Centurion/Select) = grass control (PHI 30 days)

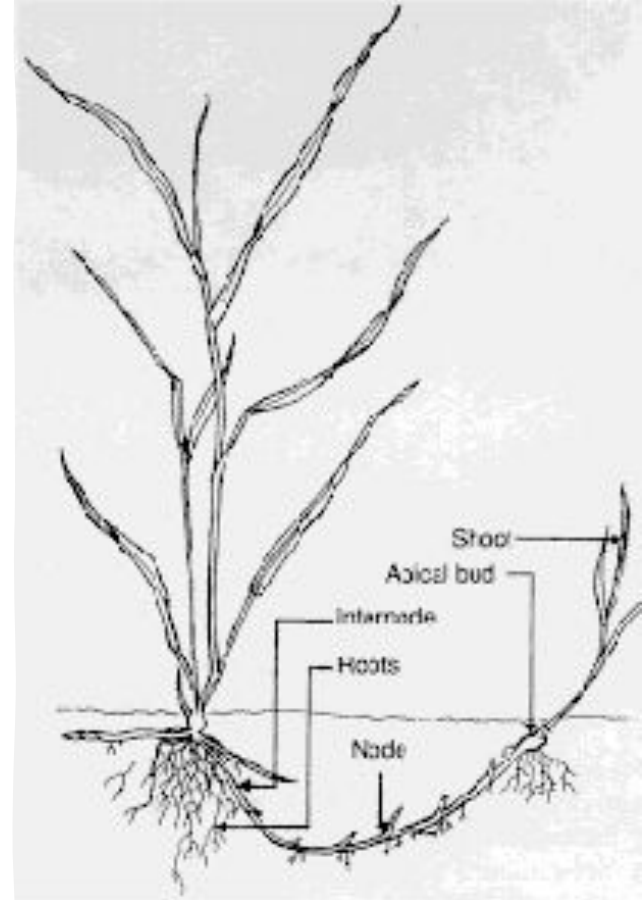
# Lavender Weed Problems

- Converting hay or pasture into planting area
- Weed competition in bare soil plantings (rare)
- Creep of perennial weeds over the plastic over time
- Emergence of perennial and annual weeds through the holes

# Land Preparation

- What was the previous cropping system?
  - Field crops or annual hort crops = no major challenges for land preparation
  - Perennial horticultural crops, hay or pasture = major challenges
- Perennial weeds the biggest challenge
  - Quackgrass
  - Canada thistle
  - Field bindweed
  - Creeping Charlie
- Watch out for herbicide residues
  - Groups 2, 5, 27





# Quackgrass

- Spreads by seed and underground rhizomes
- Rhizomes can grow up to 2.5 cm/ day
- 1 plant can produce 154 m of rhizomes and 206 shoots

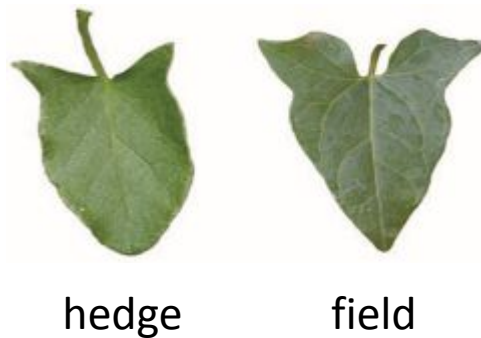


# Canada Thistle

- Native to Europe
- Spreads by seed and rhizomes
- One plant can spread up to 5.5 m in one season

# Field Bindweed

- Broadleaf
- Long bloom/seed production period
- Deep and extensive rhizomes
  - 6 m deep and 3 m wide in 1 season



# Creeping Charlie (Ground Ivy)

- Spreads by stolons
- Grows effectively in grass cover
- Impossible to control by mowing or pulling
- Thrives in partial shade



# Controlling Perennial Weeds

- Cultivation

- Breaks up rhizomes resulting in many more shoots
- Repeated cultivation at re-emergence weakens rhizome
- Cultivate in weed patches separately to avoid spread
- Weakened rhizome less susceptible to herbicides
- Allow one full year for process

- Mulch

- Block light from weeds in the entire area to be planted = black plastic mulch
- Gradually weakens weeds
- Cover for full growing season

# Land Preparation Strategies

- Start early
- Use herbicides first (if using)
  - Time for May (rosette stage), bloom, or after a couple frosts in fall
- Cultivate repeatedly or keep ground fully covered with black plastic
- Lay plastic mulch
  - leave for a few weeks to control one last flush before burning holes
- Keep holes in plastic small
- Hand pull weeds as they emerge



# Mulching



- Ground Cloth
  - Woven black plastic
  - Strips or solid sheets
  - 10 yr life
  - Allows some moisture and air through (and weed roots)
  - Holes must be burned followed by hand planting
- Tree Mulch
  - Thick solid plastic (strips only)
  - 7 yr life
  - Drip irrigation required
  - Allows for mechanized planting



# Other Mulches



Source: [gardeningknowhow.com](http://gardeningknowhow.com)



Source: Dr. Curtis Beus



Source: [lavendergreen.com](http://lavendergreen.com)



# Weed Control Strategies – Creep into Row

- Consider solid ground cloth rather than strips
  - Reduces weed competition
  - Fewer border areas
- Avoid blowing clippings into the row
  - Weeds eventually grow in the clippings
- Spray a burndown herbicide at the edge of plastic periodically to prevent creep
  - Do not contact lavender foliage
- Use Select/Centurion (not organic) to control grasses next to row if aggressive – e.g., crabgrass

# Do You Need Turf between Rows?



Rye planted between rows



# Weed Control Strategies: Weeds in the Row

- Use an organic mulch in the holes after planting to block light (control of annual weeds)
  - Keep thin to avoid rot
- Use herbicides to control grasses (if using)
  - 2-4 leaf stage = small
  - = Father's Day for crabgrass, earlier for others
- Hand weed repeatedly to catch weeds while still young or prevent regrowth of rhizomes

# Conclusions

- Prioritize weed control early before weeds get out of hand
  - Begins at land preparation
  - Crucial in first few months after planting
  - Delayed control = exponentially increased labour
- Use mulches
- Consider herbicides
  - Both an economic and a personal decision
  - Organic options available



Questions?

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