Chinese Privet (Ligustrum sinense) Control with Basal Bark Herbicide Application

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Chinese privet
Chinese and European Privets
*Ligustrum sinense* and *L. vulgare*

Forest Acres in a County Occupied
- Not Detected
- < 1,000
- 1,000 – 10,000
- 10,000 – 25,000
- 25,000 – 50,000
- 50,000 – 75,000
- 75,000 – 100,000

USDA Forest Service
SRS FIA database March 2008
Miller and Chambliss, Auburn
“Between the hedges” refers to Chinese Privet!
Privet Treatment Options

- Foliar
  - Glyphosate (3% v/v) in late fall
- Cut Stump
  - Glyphosate (25% v/v)
  - Triclopyr amine (25% v/v)
- Basal Bark
  - Garlon 4 (20% v/v) in fall
Brass tip shut off wand - ULV brass wand (BG42401) available from Arborchem Products.
Flat fan nozzle - Spraying Systems 2503

Adjustable-cone nozzle - Spraying Systems ConeJet 5500-X3
Research Questions

- Is there a differential performance between triclopyr products?
  - Garlon4 @ 20, 10 and 5%v/v versus Pathfinder II
- Does stem size influence treatment efficacy?
- Does season of treatment influence herbicide efficacy (winter versus spring)?
Site 2: AU Swine Unit
<table>
<thead>
<tr>
<th>Treatment</th>
<th>Rate (%v/v)</th>
<th>lb ae/gal</th>
</tr>
</thead>
<tbody>
<tr>
<td>Garlon 4</td>
<td>20</td>
<td>0.8</td>
</tr>
<tr>
<td>Garlon 4</td>
<td>10</td>
<td>0.4</td>
</tr>
<tr>
<td>Garlon 4</td>
<td>5</td>
<td>0.2</td>
</tr>
<tr>
<td>Pathfinder II</td>
<td>100</td>
<td>0.75</td>
</tr>
<tr>
<td>Untreated</td>
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<td>---</td>
</tr>
</tbody>
</table>
- Used 40-50 individual clumps per treatment
- Measured root collar diameter of each clump
- Treated bottom 30 cm of each stem within each clump

Treatment timings
- January (Early winter)
- March (Early Spring)
Data Collected

- Data collected 3 to 18 months after treatment
  - Percent canopy defoliation
  - Number of resprouts per clump
  - Total length of resprouts per clump
    - Lateral root resprouts within a 30 cm radius of main stem are included in totals
Privet Seedlings excluded
Privet size was not an issue
Privet %Defoliation 18 MAT

- January
- March

% Defoliation

- Unt
- G5
- G10
- G20
- Path
Privet Total Sprout Length 18 MAT

- January
- March

Total Sprout Length (in/plt)
Chinese Privet %Kill 18 MAT

- Unt
- G5
- G10
- G20
- Path

% Kill

January
March

Graph showing the percentage kill of Chinese Privet in January and March for different treatments: Unt, G5, G10, G20, and Path.
Summary to date

- Clump size for privet not a major issue for basal bark treatment
- Early winter and early spring timings both work well for Garlon 4 at 20%
- Reduced Garlon 4 rates do a lot of damage, but expect more sprouting
Questions?

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