THE TRIALS AND TRIBULATIONS OF YELLOW TOADFLAX

Linaria vulgaris
Butter & Eggs
Wild Snapdragon

Deep Rooted Perennial Forb
Reproduces by both seed and rootstocks
Escapes Ornamental
Aggressive Invader of Rangelands and Pastures

And it will grow just about anywhere!

Red Rock Park East Miller C&H
August 22, 2000

Control Mix
2 qt. Tordon 22K
3 lb. 2,4-D
6% @ 25%

Control Mix plus 1 lb. Escort

Walker mix plus 1 qt. Tordon

5 oz. Plateau
2 oz. Escort
Control Mix

Control Mix plus Escort

Walker Mix

Walker plus Tordon

2 oz. Escort

Range label for Telar in 2004. Reports that it was much easier on the grasses so we changed all Escort applications to Telar.
Jim Daniel and DuPont

9 Plots with 3 replications
Treatments conducted August 1, 2006
East of Meeker (Flat Tops)

<table>
<thead>
<tr>
<th>Plot</th>
<th>Treatment Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Telar 1 oz, Tordon 1 qt, Overdrive 4 oz, Air Force 2% V/V</td>
</tr>
<tr>
<td>2</td>
<td>Telar 1 oz, Escort 1 oz, Overdrive 4 oz, Air Force 2% V/V</td>
</tr>
<tr>
<td>3</td>
<td>Telar 2 oz, Escort 2 oz, Overdrive 4 oz, Air Force 2% V/V</td>
</tr>
<tr>
<td>4</td>
<td>Telar 1 oz, Escort 1 oz, Overdrive 4 oz, Tordon 1 qt, Air Force 2% V/V</td>
</tr>
<tr>
<td>5</td>
<td>Telar 2 oz, Escort 2 oz, Overdrive 4 oz, Tordon 1 qt, Air Force 2% V/V</td>
</tr>
<tr>
<td>6</td>
<td>Telar 3 oz, Overdrive 4 oz, Air Force 2% V/V</td>
</tr>
</tbody>
</table>

Plot 7
Telar 3 oz
Overdrive 4 oz
Tordon 1 pt
Air Force 2% V/V

Plot 8
Telar 1 oz
Tordon 3 qt
2,4-D 1 lb
Banvel 1 qt
Air Force 2% V/V

Plot 9
Untreated Control

Two more tests with Telar and a new product to come on the market Perspective

Site 1 at the Camp Hale Historical site near Minturn

<table>
<thead>
<tr>
<th>Treatment Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>#1 Perspective 2.75 oz NIS</td>
</tr>
<tr>
<td>#2 Perspective 3.75 oz NIS</td>
</tr>
<tr>
<td>#3 Perspective 4.75 oz NIS</td>
</tr>
<tr>
<td>#4 Perspective 5.75 oz NIS</td>
</tr>
<tr>
<td>#5 Telar XP 2 oz MSO/Sil</td>
</tr>
<tr>
<td>#6 Telar XP 3 oz MSO/Sil</td>
</tr>
<tr>
<td>#7 Tordon 2 qt/2,4-D .5 lb NIS</td>
</tr>
<tr>
<td>#8 Untreated</td>
</tr>
</tbody>
</table>

Site 2 adjacent to first test east of Meeker (Flat Tops)

<table>
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<tr>
<th>Treatment Details</th>
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<tr>
<td>#1 Perspective 2.75 oz NIS</td>
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<td>#3 Perspective 4.75 oz NIS</td>
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<td>#5 Telar XP 2 oz MSO/Sil</td>
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<tr>
<td>#6 Telar XP 3 oz MSO/Sil</td>
</tr>
<tr>
<td>#7 Tordon 2 qt/2,4-D .5 lb NIS</td>
</tr>
<tr>
<td>#8 Untreated</td>
</tr>
</tbody>
</table>

Most all the treatments worked very well with no significant grass damage observed.

<table>
<thead>
<tr>
<th>PERCENT CONTROL</th>
<th>Camp Hale 329 DAT</th>
<th>Camp Hale 728 DAT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Plot #</td>
<td>329 DAT</td>
<td>728 DAT</td>
</tr>
<tr>
<td>1</td>
<td>62%</td>
<td>78%</td>
</tr>
<tr>
<td>2</td>
<td>93%</td>
<td>80%</td>
</tr>
<tr>
<td>3</td>
<td>98%</td>
<td>94%</td>
</tr>
<tr>
<td>4</td>
<td>93%</td>
<td>87%</td>
</tr>
<tr>
<td>5</td>
<td>95%</td>
<td>93%</td>
</tr>
<tr>
<td>6</td>
<td>95%</td>
<td>89%</td>
</tr>
<tr>
<td>7</td>
<td>88%</td>
<td>96%</td>
</tr>
<tr>
<td>8</td>
<td>77%</td>
<td>98%</td>
</tr>
</tbody>
</table>

Camp Hale 329 DAT
- #1 94%
- #2 100%
- #3 100%
- #4 100%
- #5 97%
- #6 100%
- #7 100%
- #8 0%

Camp Hale 728 DAT
- #1 88%
- #2 97%
- #3 100%
- #4 100%
- #5 93%
- #6 100%
- #7 100%
- #8 0%

Some yellowing of the grasses observed the first year after treatment with the high rate of Perspective, but it was not evident by the second summer.

Flat Tops 328 DAT
- #1 23%
- #2 75%
- #3 87%
- #4 92%
- #5 96%
- #6 100% 3oz Telor
- #7 58%
- #8 0%

Flat Tops 728 DAT
- #1 25%
- #2 80%
- #3 94%
- #4 98% 5.75 oz Per
- #5 93%
- #6 96% 3oz Telor
- #7 57%
- #8 0%

So as you can see, not all yellow toadflax is created equal!
Telar XP

- Grazing restrictions for rates in excess of 1.33 oz./Acre
- Do not use LI-700 or other acidifying spray adjuvants with Telar XP
- Do not apply directly to water, but it can be applied to areas of temporary surface water, seasonal flood plains, marshes, swamps, and bogs after water has receded.
- Will not cause wilt, so be prepared and trust the science. The target species may take several weeks to show signs on stress.

Perspective

- Does not have a range label at this time.
- May be applied by ground equipment only, except for rights-of-way.
- May be applied up to the water's edge.
- Approved for use on rights-of-way and uncultivated agricultural areas, non-crop producing, and natural areas, such as wildlife management areas, wildlife openings, wildlife habitats, recreational areas, campgrounds, trailheads, and trails.
- May cause the yellowing of grasses at rates above 5.5 oz./Acre

Surfactant Choices for Toadflax

<table>
<thead>
<tr>
<th>Product Name</th>
<th>Supplier</th>
</tr>
</thead>
<tbody>
<tr>
<td>AirForce</td>
<td>United Suppliers</td>
</tr>
<tr>
<td>Aligare MVO Plus</td>
<td>Aligare</td>
</tr>
<tr>
<td>Base</td>
<td>Van Diet</td>
</tr>
<tr>
<td>DynaAmic</td>
<td>Helena</td>
</tr>
<tr>
<td>FastStrike</td>
<td>Simplist</td>
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<tr>
<td>Inergy</td>
<td>Agrilutions</td>
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<tr>
<td>Phase</td>
<td>UAP</td>
</tr>
<tr>
<td>Rivet</td>
<td>Winfield solutions</td>
</tr>
<tr>
<td>Syl-Tac</td>
<td>Wilbur-Ellis</td>
</tr>
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</table>

Note: Apply at a minimum of 2 quarts per 100 gallons of final mix
(This may be an incomplete list as most companies have their own unique brand.)

Biological Control

Calophasia Lunula
Mecinus janthinus
**A Few Successes**

2004 changed to Telar

Abandoned site in 2005 and in 2007 treated entire area with 3 oz. Telar per acre. Treated once in 2007 with no follow-up treatments.
Weed Contracts with the Forest Service

In order to even be considered for a government contract you must have a DUNS number (Dun & Bradstreet) and be a registered business in the SAM system (System for Award Management).

The best way to get started is to go to the Colorado PTAC (Procurement Technical Assistance Center) website. Colorado PTAC is a nonprofit that assists Colorado businesses doing business with Federal, State and Local Governments.

http://www.coloradoptac.org/

A DUNS (Dun & Bradstreet) number is required in order to enter into an agreement with the government. If you do not already have a DUNS number, you can obtain one here:

http://www.sba.gov/content/getting-duns-number

You will be required to register in SAM (System for Award Management):
https://sam.gov/login/login/SAM/

QUESTIONS?

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