**What Makes a Successful Bareground Program?**

- Timing of Application, Spring or Fall
- Application Equipment/Methods
- Bareground Products/Cost

**Why Control Vegetation on Industrial Sites**

**Fire Safety**

**Maintenance Access**
Noxious Weed Control Mandated by State of Colorado

Bareground Programs
- Is the site appropriate?
- Trees or other high value vegetation?
- Slope. Will the treatment move off site?
- Water nearby?
- Other environmental considerations

GOAL #1 Achieve Bareground

GOAL #2 Maintain it
### Initial Treatment

- Year 1: Krovar 10lb. + Roundup + ?
- Year 2: Sahara DG 10 lb. + Roundup 2 qt./ac.
- Year 3: Sahara DG 10 lb. + Roundup 2 qt./ac.

### Bareground Surfaces

- Graveled surfaces are best
- Bare soil is subject to erosion by wind and water, vehicle tracking off-site.

### Keys to a Successful Bareground Project

- Correct product for the site
- Timing of application (precipitation)
- How you apply the product. (equipment and calibration)

### Environmental Conditions Necessary

- Soil dry (but not too dry)
- No wind.
- No rain right before, during or too soon after application.
- But we do want 1”+ of nice soaking precip not too soon (but not too long) after the application.

What could possibly go wrong in this scenario in western Colorado???

### Work during periods of adequate precipitation

- Spring applications: as soon as snow melts until June.
- Fall applications: September (high elevations) later at lower elevations until snow or ground-freeze.

### Spring Application Challenges

- Standing Water, Mud
How Do you Overcome Spring Challenges?

- Patience

Perserverance

Don't ever give up.
**Keys to Success**

- Don’t Start Too Early
- Don’t Push the Envelope
- Remember: Poor Results Could Cost You the Contract.

**Fall Application Challenges**

- Don’t Start Too Early
- Don’t Push the Envelope
- Remember: Poor Results Could Cost You the Contract.

**Fall Application Positives**

- Better Weather in General
- Less Wind
- Less Down Time

**Fall Application Negatives**

- Undependable Precipitation Timing
- Client May Not Approve of Fall Treatments

**Application Methods**

- Handgun- 50-100 GPA Excellent Coverage and Saturation.
- Boom
**Application Volume**
- Boom Sprayer - Large Areas 30-40 GPA. Spotty Coverage, Subject to Drift, Low Volume

**Booless Nozzles**
- Same Application Volume as Boom, Better Coverage, Larger Droplets, Less Drift

**Experimental Equipment**

**Handgun Advantages**
- Best Coverage, Best Saturation

**Bareground Hard Residual Products**

<table>
<thead>
<tr>
<th>Product</th>
<th>Rate</th>
<th>Cost/Acre</th>
</tr>
</thead>
<tbody>
<tr>
<td>Krovar 1 DF</td>
<td>8 lb.</td>
<td>$101.20</td>
</tr>
<tr>
<td>Sahara DG</td>
<td>10 lb.</td>
<td>103.50</td>
</tr>
<tr>
<td>Throttle</td>
<td>12.5 oz.</td>
<td>85.95</td>
</tr>
<tr>
<td>Landmark XP+</td>
<td>4.5 oz. + 4 oz.</td>
<td>69.24</td>
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<tr>
<td>Frequency</td>
<td></td>
<td></td>
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<tr>
<td>Frequency+</td>
<td>4 oz. + 2.3 lb.</td>
<td>69.67</td>
</tr>
<tr>
<td>Proclipse</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lineage Prep</td>
<td>29 oz.</td>
<td>97.87</td>
</tr>
</tbody>
</table>
**DuPont Bareground**

Krovar: Has been the standard for bare ground weed control for 30 years. Contains 2 molecules: diuron and bromocic. Apply pre-emergent or very early post-emergent (should add another post-emergent like dicamba or glyphosate if necessary). 10 lbs/ac.

Throttle XP: Has become a very popular solution to bare ground weed control in the past two years. Contains 3 molecules: chlorosulfuron, sulfometuron methyl, and sulfentrazone. Apply preemergent 12.5 oz/ac.

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**DuPont New Chemistry**

- Four new brands based on aminocyclopyrachlor, a new molecule discovered by DuPont and registered late 2010. Three of the brands are now registered. Waiting on registration on Plainview®.

- The new products are:
  - Perspective® herbicide for selective noxious/broadleaf weeds.
  - Streamline® herbicide for difficult weeds and some brush.
  - Viewpoint® herbicide for difficult brush.
  - Plainview® for bare ground.
  - Registered trademarks of DuPont.
Final Thoughts

- Clean-up Treatments:
  Overdrive 8 oz./acre + Roundup 2 qts./ac.

Lined Containment

Communication