Dr. Donald Miller - Alforex Seeds

&

Rachael Long - UCCE

“Alfalfa Diseases and Current Management Options”
Identify the Diseases on Your Farm
Phytophthora Root Rot
Fusarium wilt
Crown Rot
Bacterial wilt
Anthracnose
Verticillium wilt
Rhizoctonia
Downy Mildew
Alfalfa Mosaic
Leaf spots
Damping Off Diseases
(Cool Wet Planting Conditions)
Seed Treatments
ROOT DISEASES
Top-growth stunted and yellow
White Healthy Root
Bacterial Wilt
Fusarium wilt – Brick Red Discoloration
Traffic- Compaction
Hoof Damage
Brown Tissue
Use Resistant Varieties
Phytophthora Root Rot
Avoid Poorly Drained Soils
Phytophthora Root Rot

Taproot pinched off, Brown lateral roots & Root
Phytophthora Root Rot

• Resistant Varieties
• Better drainage
  • Deep plowing
  • Laser leveling
  • Planting on beds
  • Tiling
Shepherd's Crook Anthracnose
Anthracnose
Diamond shaped lesions
Anthracnose

• Resistant varieties
• Avoid spreading spores
  • Harvest Order
  • Disinfect Equipment
Verticillium wilt
Verticillium wilt

• Resistant varieties
• Avoid spreading spores
  • Harvest Order
  • Disinfect Equipment
What Caused this damage?
Swather Moving Pests to New Fields
LEAF DISEASES

(Common Leaf spots, Lepto etc)
Alfalfa Mosaic Virus
Downy Mildew
Downy Mildew
## Managing Cool Season Diseases with Fungicides in Alfalfa

<table>
<thead>
<tr>
<th>Fungicide</th>
<th>Cool Season Diseases</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pristine <em>pyraclostrobin</em> + <em>boscalid</em></td>
<td>Sclerotinia stem and crown rot, ‘white mold’, as well as common diseases listed below.</td>
</tr>
<tr>
<td>Headline <em>pyraclostrobin</em></td>
<td>Common diseases such as downy mildew, common leaf spot, spring black stem (<em>Phoma</em>), <em>Cercospora</em>, and <em>Stemphyllium</em> and <em>Stagnospora</em> leaf spot.</td>
</tr>
<tr>
<td>Quadris <em>azoxystrobin</em></td>
<td>Common diseases such as downy mildew and <em>Cercospora</em> leaf spot in alfalfa.</td>
</tr>
<tr>
<td>Not Registered <em>Priaxor pyraclostrobin</em> + <em>fluxapyroxad</em></td>
<td>Will control above diseases and is systemic so will protect new foliage</td>
</tr>
</tbody>
</table>

The cost/benefit ratio of an application will depend on geographic location, disease incidence, varietal resistance and local weather.
Summary

- Resistant Variety

- Cultural Practices
  - Prevention
  - Limit build-up & Severity
Miscellaneous Problems
Should you re-seed alfalfa in an old alfalfa stand?

Thinning Stand 4th year
Autotoxicity

• Detrimental affect of old alfalfa stand on New alfalfa planting.

• Thickening old alfalfa stands by planting new alfalfa seed often fails.

• One year rotation needed between alfalfa plantings to avoid autotoxicity.

• Less common on sandy soils.
Salt Hot Spot in Alfalfa Field
PLANT RESISTANT VARIETIES WHEN AVAILABLE

MOST ECONOMIC CONTROL
Diseases In Alfalfa
What Are Your Options?

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