

# Management of Scab Resistant Pecan Varieties

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# Planning and Establishing a New Pecan Orchard



# Many Decisions to Make?

- Site Selection
- Site Analysis
- Preplant Considerations
- Variety Selection
- Orchard layout
- Site Preparation
- Plant Sources
- Planting Tips
- Equipment and Growing Supplies
- Management Considerations



Where can I save money??

Insecticides?

Pruning?

Irrigation?

Fertilizer?

Cultivars?

Fungicides?

Herbicides?

Equipment?

Mowing?

# Scab Resistant Varieties

**Elliott**

**Kanza**

**Lakota**

**Excel**

**Sumner**

**Gafford**



# A Scab resistant variety is not a silver bullet!!

An advertisement for Silver Bullet .45 Long Colt bullets. The background is a black and white photograph of a cowboy wearing a wide-brimmed hat and a black eye mask, holding a revolver. Overlaid on the right side of the image is a large, detailed image of a silver revolver. In the foreground, several silver bullets are shown: one standing vertically on the left, and a group of five lying horizontally on the right. Text in the bottom right corner of the advertisement reads:


**SILVER BULLET**  
**.45 LONG COLT**  
1.5 TROY OZ .999 PURE SILVER



# Case Study







**What is causing the  
Elliott trees to  
defoliate?**

# Elliott



- **Tree:** Protogynous, with midseason pollen shed. Moderate precocity and yield potential.
- **Nut:** 67 nuts/lb, 53% kernel.
- **Disease:** High scab resistance, susceptible to black aphid.

# So what can cause a pecan tree to defoliate?

**Black Aphids**

**Scorch Mites**

**Bacterial Leaf Scorch**

**Neofusicoccum**

**Brown Spot**

**Scab**



# Treatments

**Control**

**Abound**

**Group 11**

**Elast 400F**

**Group U12**

**Ele-Max NC**

**micronutrients**

**Enable 2F**

**Group 3**

**Rampart**

**Group 33**

**Super Tin 4L**

**Group 30**

**Ziram 76F**

**Group M3**

# Treatments

**Control**

**Abound 9.5 oz/acre**

**Elast 400F 51 oz/acre**

**Ele-Max NC 2 quarts/acre**

**Enable 2F 8 oz/acre**

**Rampart 2 quarts/acre**

**Super Tin 4L 12 oz/acre**

**Ziram 76F 7 lb/acre**

# Treatment Dates

**5 single tree reps for each treatment**

<b>Spray 1</b>	<b>April 5, 2018</b>
<b>Spray 2</b>	<b>April 19, 2018</b>
<b>Spray 3</b>	<b>May 8, 2018</b>
<b>Spray 4</b>	<b>May 31, 2018</b>

**Foliage evaluated on Sept. 12, 2018.**

# Defoliation Rating

**1 - <5%**

**2 – 6-25%**

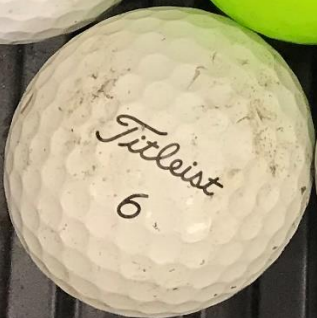
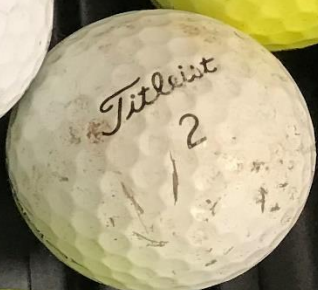
**3 – 26-50%**

**4 - >50%**

# Treatments

<b>Control</b>	<b>3.0</b>
<b>Ele-Max NC</b>	<b>2.8</b>
<b>Rampart</b>	<b>2.0</b>
<b>Super Tin 4L</b>	<b>1.4</b>
<b>Abound</b>	<b>1.0</b>
<b>Enable 2F</b>	<b>1.0</b>
<b>Elast 400F</b>	<b>1.0</b>
<b>Ziram 76F</b>	<b>1.0</b>





PLS M...

# Control



**Control**



**Control**



# Ziram



**Ziram**





**Ziram**

**Abound**





**Abund**



**Abund**



**Enable**



# Control



# Ziram











# SUMMARY



# Spores isolated from infected leaves were synonymous with:

- **Brown leaf spot**
  - *Cercospora fusca*
  - *Sirosporium diffusum*
  - *Pestalotiopsis clavispora*



# Summary

- Abound, Elast, Enable, and Ziram provided the best protection against defoliation.
- Multiple chemical groups provide good control of brown spot, so a multi-chemical rotation can be developed as a management tool.
- Good scab resistance in a pecan variety is a management tool, not a stand alone solution.

**THANKS!**



**SEPGA**

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**NOBLE**  
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