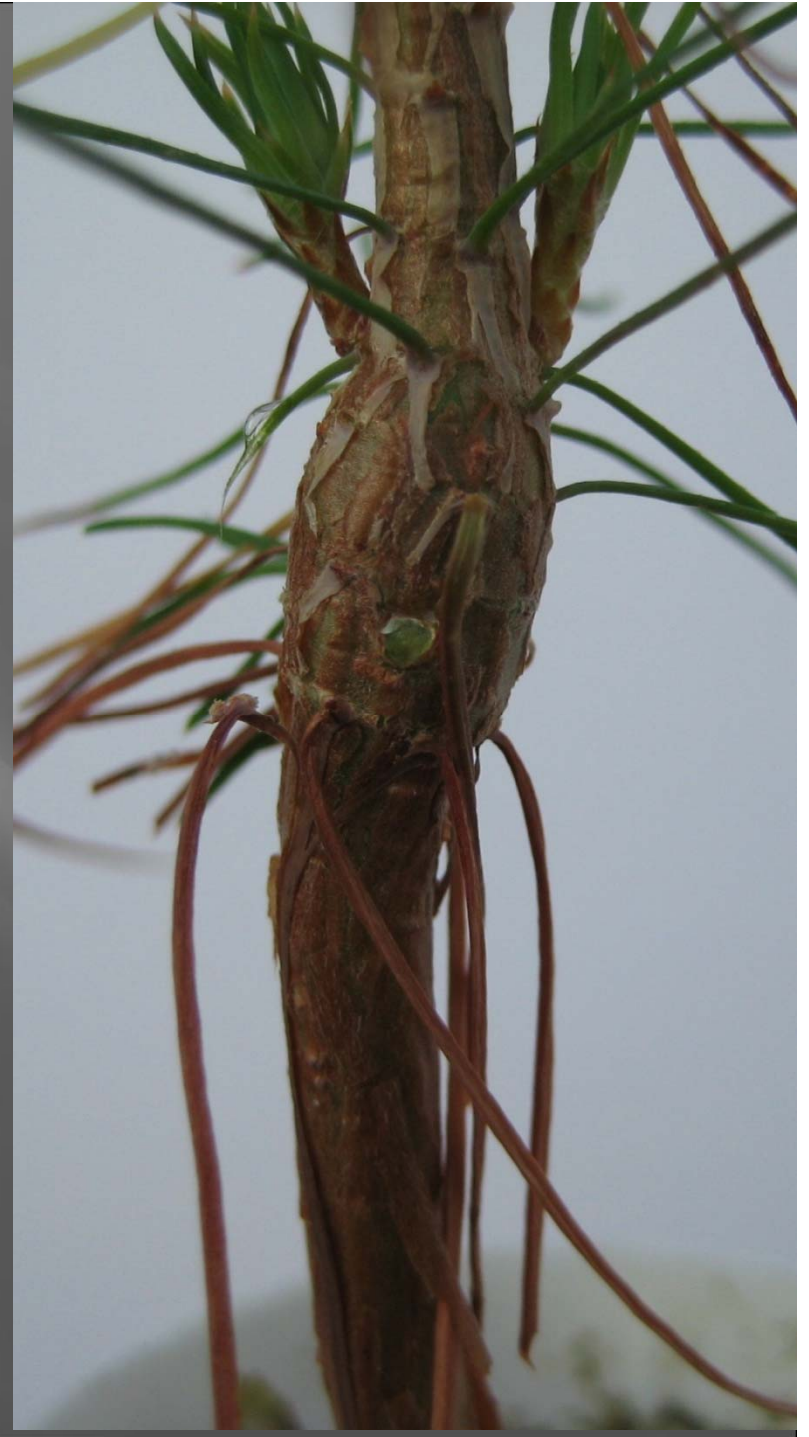


# FUSIFORM RUST FUNGICIDE ALTERNATIVE STUDY

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•Southern Forest Nursery  
Management Cooperative  
Auburn University



We wish to thank the staff of the  
RESISTANCE SCREENING CENTER  
USDA FOREST SERVICE,  
ASHEVILLE, NC

for their assistance in this study

What one chemical do you  
have, that if it was taken  
away from you, you could not  
grow loblolly pine?



Bayleton – a  
chemical with  
an uncertain  
future

# 2008 Study Fungicides

<i>Fungicide</i>	<i>Manufacturer</i>	<i>Active Ingredient</i>	<i>Chemical Class</i>
Bayleton®	Bayer Cropscience	Triadimefon 50%	Triazole
Provost ® 433 SC	Bayer Cropscience	Prothioconazole – 12.9% Tebuconazole – 25.8%	Triazole Triazole
Proline ® 480 SC	Bayer Cropscience	Prothioconazole – 41.0%	Triazole

**This Year - 2 Species of Pine:**  
**Loblolly**  
**Slash**

# Germination Results Following Seed Treatments

Seed Trt	% Germination following Seed Trt <b>Loblolly</b>	% Germination following Seed Trt <b>Slash</b>
Check (H <sub>2</sub> O)	95%	93%
Bayleton	92%	96%
Provost	96%	93%
Proline	96%	93%

# What has happened to date?

- ▣ Seed treatments applied and seed sown on 4/17/07.
- ▣ Seedlings for foliar and seed test taken to Asheville, NC Rust Lab on 5/6/08.
- ▣ Seedlings challenged with rust spores week of 5/12/07.
- ▣ 3 month & 6 month evaluations to be done at Rust Lab.







# Follow-up Germination Study



# 2007 Germination Results Following Seed Treatments

Seed Trt	% Germination following Seed Trt
Check (H <sub>2</sub> O)	99%
Bayleton	92%
Eagle	31%
Inspire	30%
Dividend	71%
Provost	100%
Absolute	95%
Folicur	100%



# Eagle<sup>®</sup> 20EW

## Specialty Fungicide

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A systemic, protectant and curative fungicide for disease control in established turfgrass, landscape ornamentals, greenhouse and nursery ornamentals, apples, stone fruits and grapes

Active Ingredient	
myclobutanil: a-butyl-a-(chlorophenyl)-1H-1,2,4, triazole-1-propanenitrile .....	19.7%
Inert Ingredients .....	80.3%
Total .....	100.0%

Contains petroleum distillates

Contains 1.67 lb of active ingredient per gallon



# Nova<sup>\*</sup>

## 40W

## Fungicide

\*Trademark of Dow AgroSciences LLC

NOT FOR USE IN THE FOLLOWING STATES: Alaska, Arizona, California, Hawaii, Idaho, Montana, Nevada, Oregon, Utah, Washington and Wyoming

Active Ingredient	
Myclobutanil: a-butyl-a-(4-chlorophenyl)-1H-1,2,4, triazole-1-propanenitrile .....	40%
Inert Ingredients .....	60%
Total .....	100%

# Germination

Treatment	Germination 17 days after sowing
Control	97%
Nova	98%
Eagle 2008 Rate	98%
Eagle 2007 Rate	0%

# Fusiform Rust Alternative Field Study

Thanks to:

Steve Cantrell – SC Taylor Forest Tree Nursery

Robert Cross – GA Supertree Nursery Arborgen

# Nursery Fusiform Rust Study

- ▣ Seed at both nurseries treated operationally with Bayleton.
- ▣ Foliar Sprays:
  - Provost
  - Proline
  - Bayleton
  - Control
- ▣ Randomized complete block design. Total area of each treatment 2/3 – 1 acre in size.



# Nursery Fusiform Rust Study

- ▣ Fall of 2008 seedling quality, # of rust galls and root morphology will be examined by treatment.
- ▣ If Proline looks good, we, along with Bayer CropScience will pursue registration.
- ▣ Also trying Proline in a less formal study - Weyerhaeuser, AR.
- ▣ Questions that still need to be answered:
  - What is the interval between sprays?
  - How low can we go on seed trt and still have control?

