

### Kikuyugrass "The poa of warm-season grasses"

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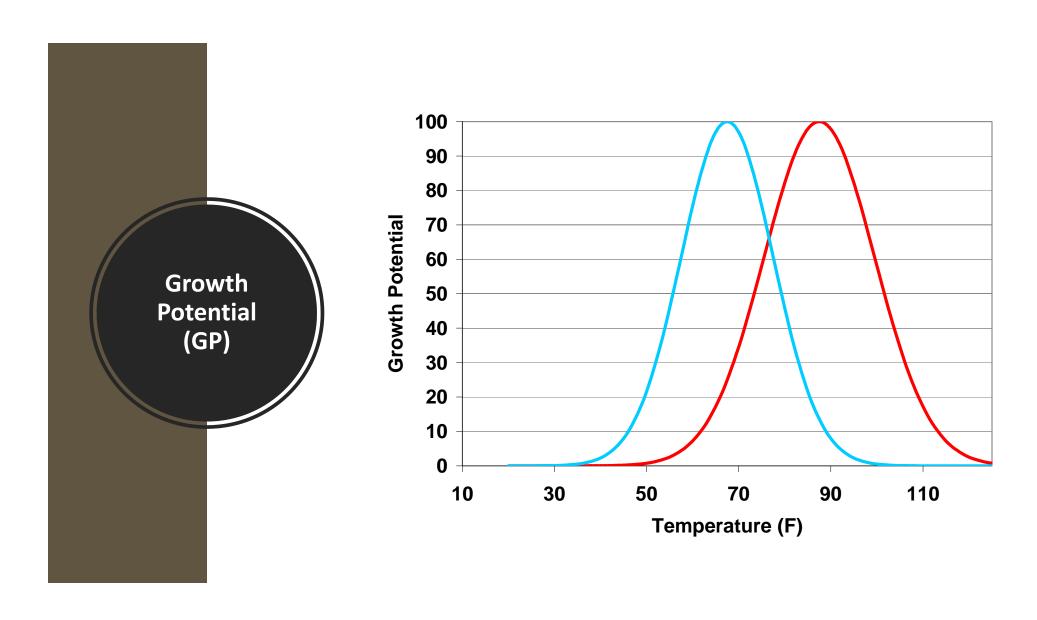


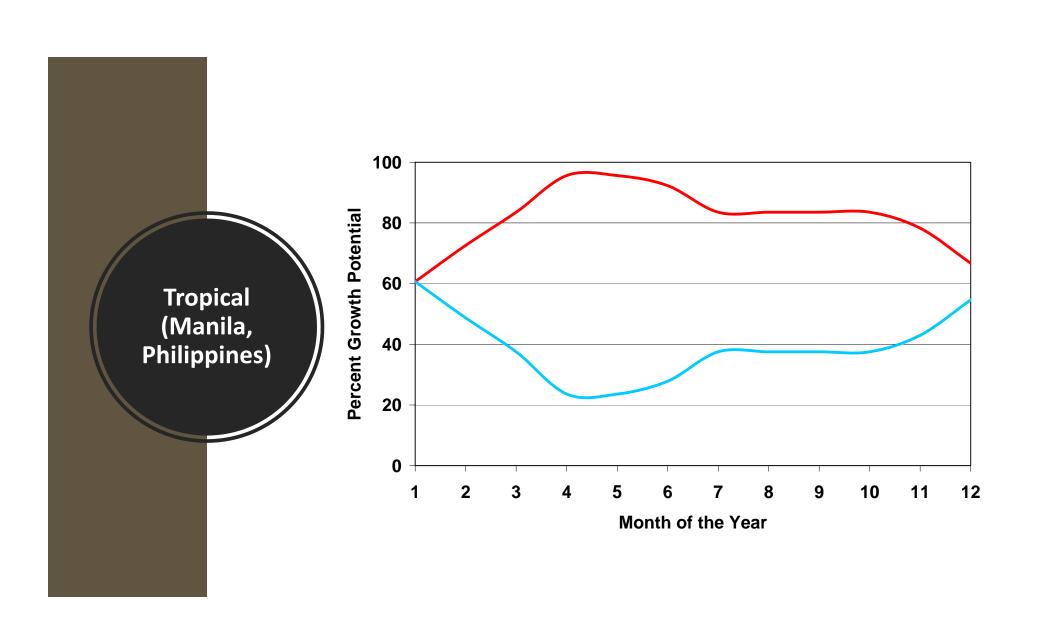


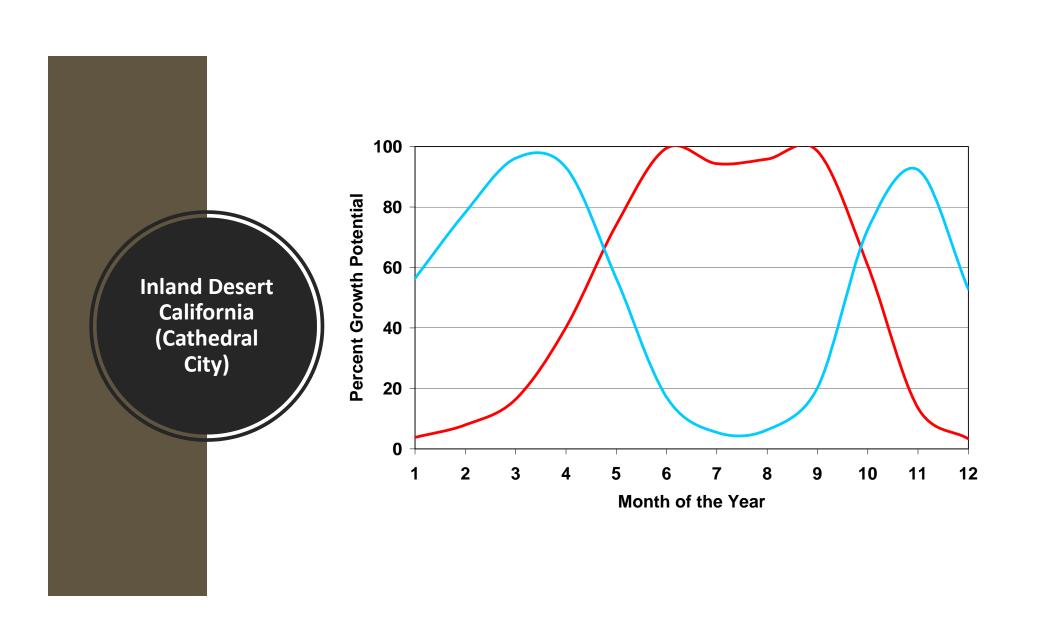


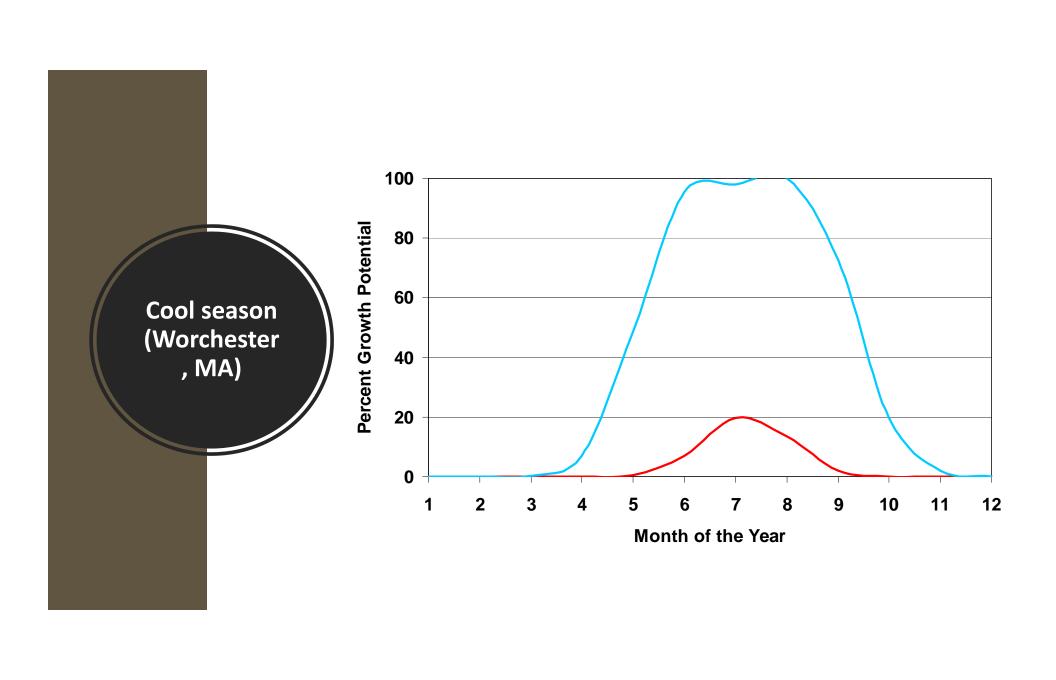
#### **Kikuyugrass**

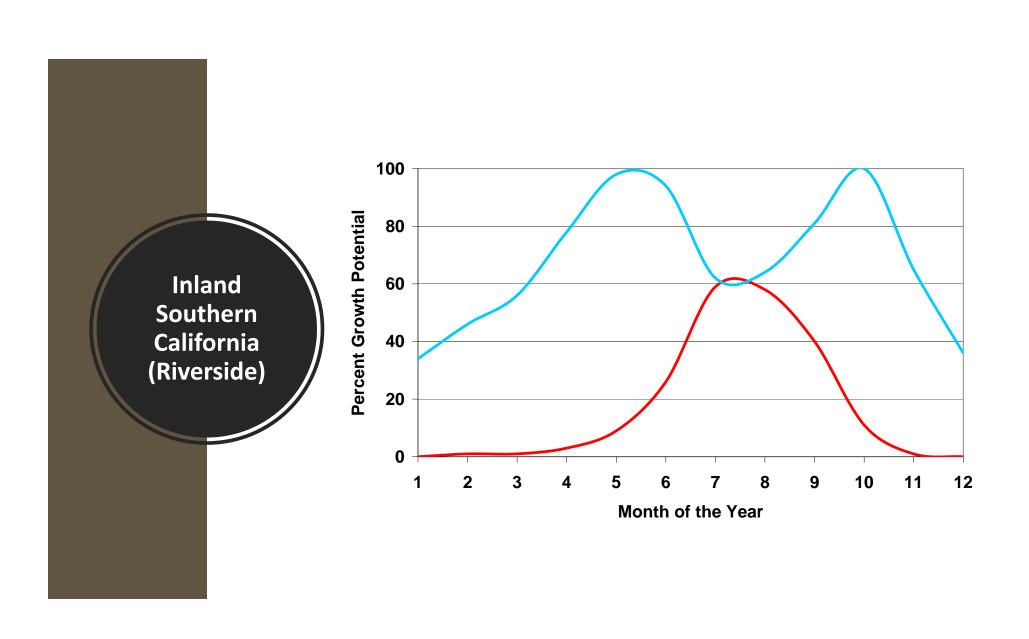
- Climate where kikuyugrass is grown
- Most destructive diseases
- Scalping
- Troublesome insects

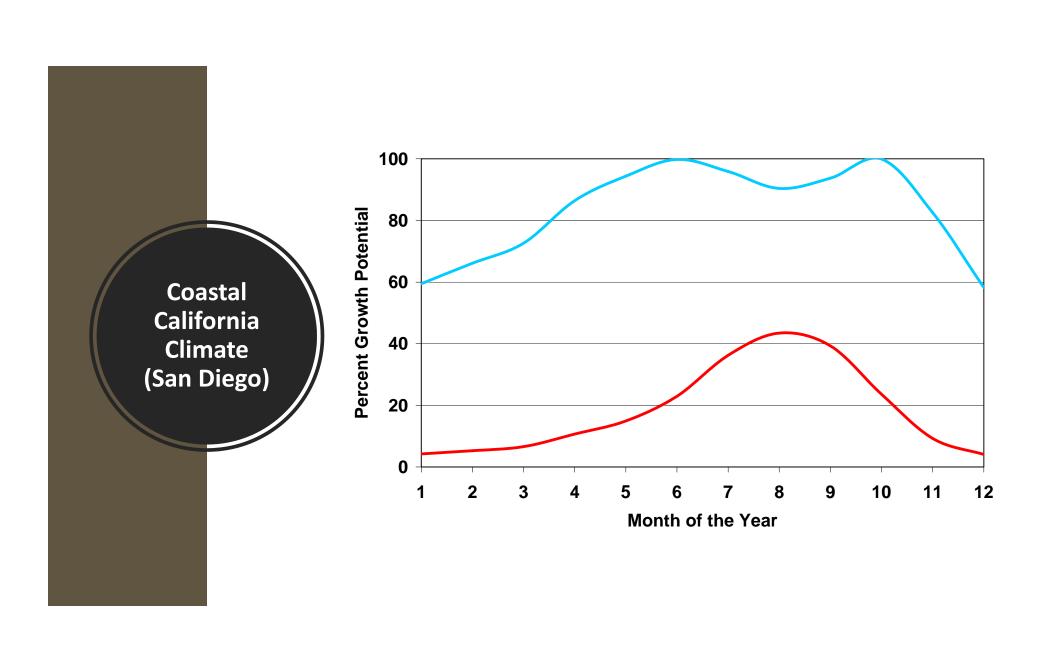


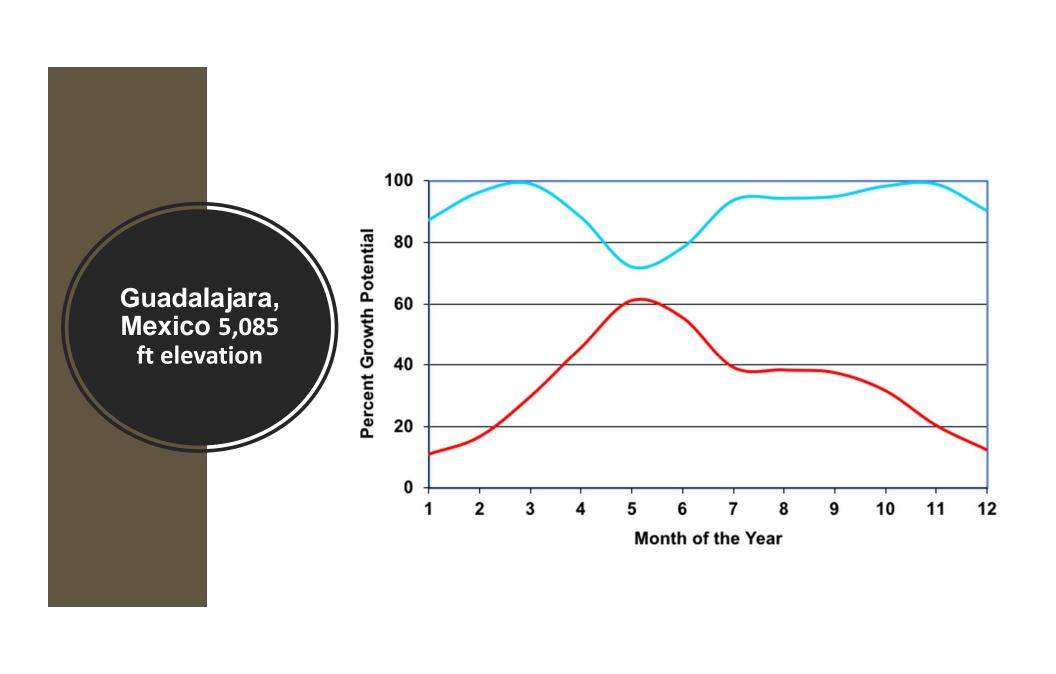


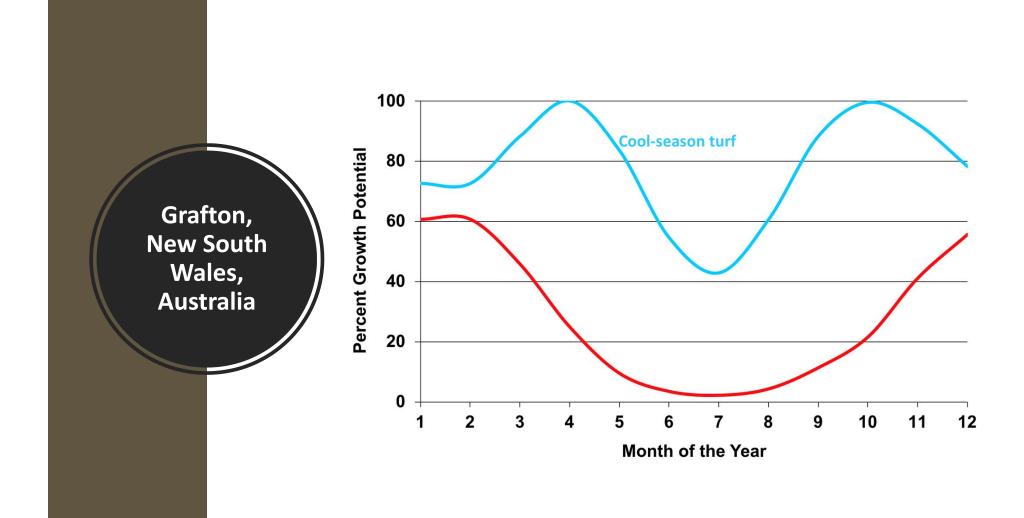


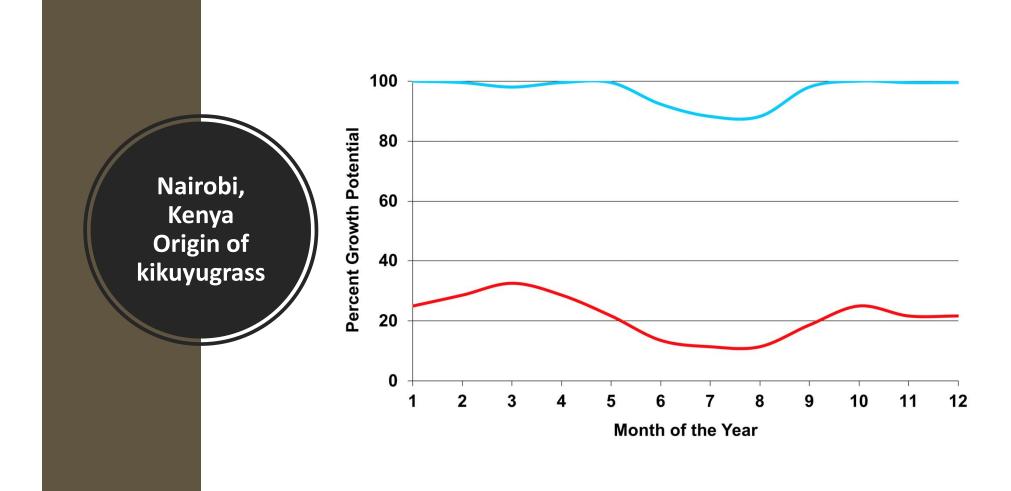












Solar Radiation & Shade



## Optimum solar radiation

Cool-season (C3) grasses
 116 – 233 w/m²/da
 10 – 20 moles/m^²/da

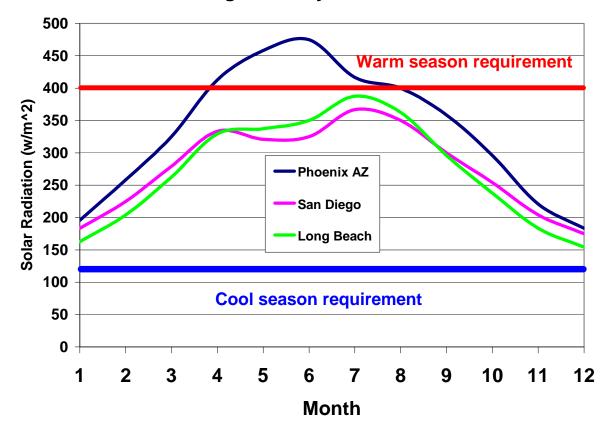
• Warm-season (C4) grasses

390 - 485 w/m<sup>2</sup>/da

 $30 - 40 \text{ moles/m}^2/\text{da}$ 

# Solar Radiation w/m<sup>2</sup>

#### **Average Monthly Solar Radiation**





#### **Kikuyugrass**

- Climate where kikuyugrass is grown in California
- Most destructive diseases
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- Troublesome insects

### **Kikuyugrass Diseases**

- Gray leaf spot
- Leaf spot
- Brown/large patch
- Decline







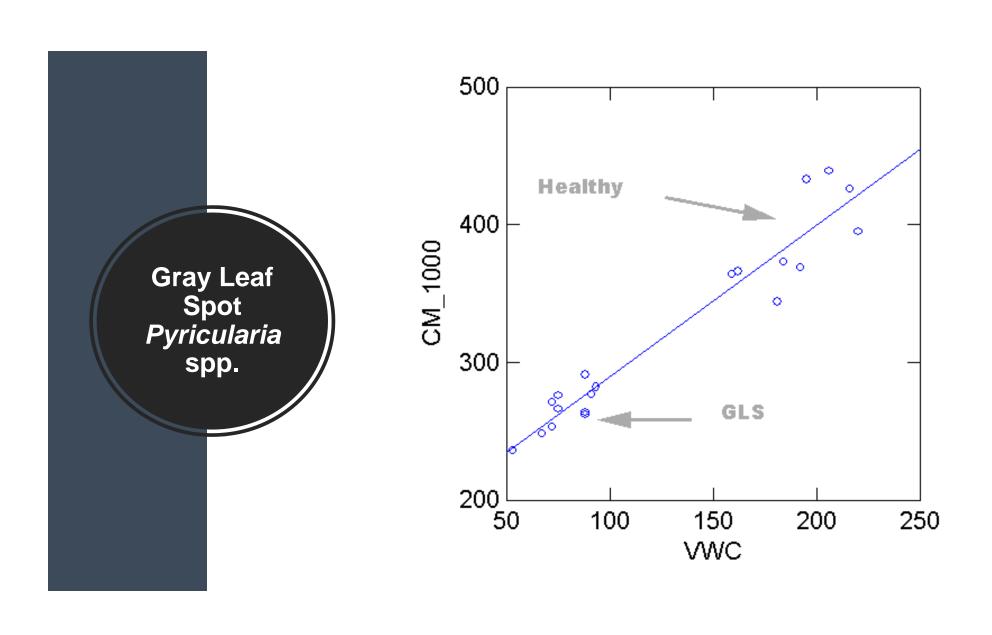












#### Gray Leaf Spot Management

- Mostly warm summer weather conditions.
   Drought seems to increase severity (Max T (F) + Min RH% > 140)
- Rotate between DMI and thiophanate-methyl plus chlorothalonil (watch chlorothalonil label limits)
- Low rates on 14 day interval seem to be better than full rates on 28 day interval
- Widespread resistance to QoI fungicides in California

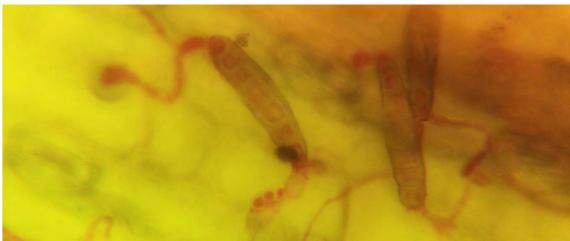
### **Kikuyugrass Diseases**

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**Leaf Spot** 

# Leaf spot and crown rot management

- Low light and moderate temperature disease
- Normally can grow out of the problem when weather improves
- In coastal areas, treatment may be needed to prevent continued decline of the kikuyugrass late summer – before cool fall weather
- Chipco 26GT, Curalan, Disarm, Fore, Medallion, Velista, Heritage, Insignia, Interface Stressgard, Lexicon

### **Kikuyugrass Diseases**

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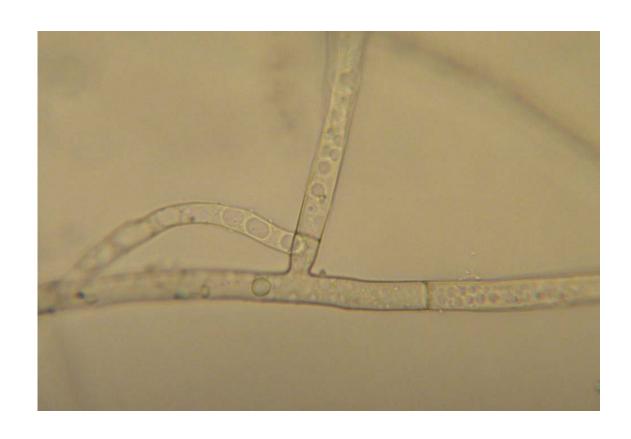
Large patch brown patch Rhizoctonia spp.



Large patch brown patch *Rhizoctonia* spp.



Large patch brown patch Rhizoctonia spp.



# Large patch/brown patch management

- Prevention is the key where the disease is prevalent
- Cool fall weather, rainfall, low light results in slow growth of kikuyugrass and limited recovery
- Heritage, Insignia, Prostar, Medallion, Fame, Xzemplar, Affirm, Briskway, Headway, Honor Intrinsic, Encave, Fame C, Fame+T, Lexicon

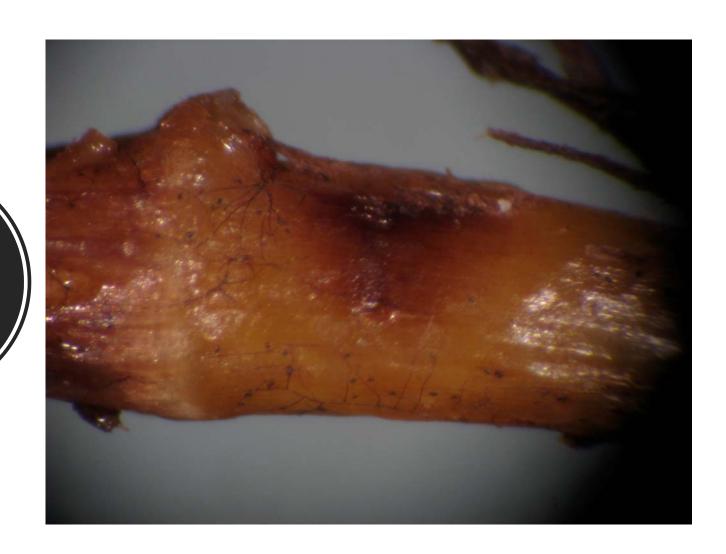
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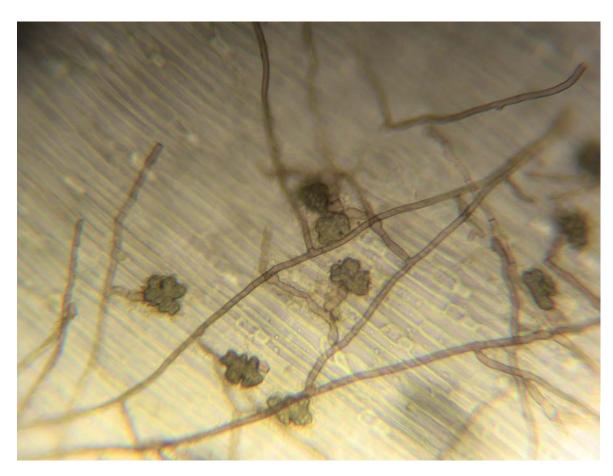
Decline Gaeumannomyces spp.



Decline Gaeumannomyces spp.







## **Decline** management

- Prevention is the key where the disease is prevalent
- Damage begins when soil temperature exceed 65 F (18 C)
- Maintain adequate Manganese (30 ppm M3 extraction)
- DMI, benzimadizole, and QoI fungicides are effective. Gray leaf spot programs also suppress decline.

#### **Kikuyugrass**

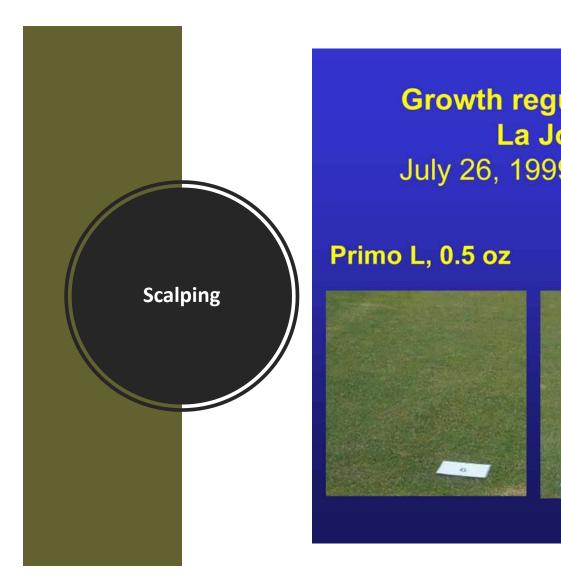
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- Troublesome insects











### Growth regulators and kikuyugrass La Jolla Country Club

July 26, 1999: 4 weeks after treatment











Roots near crown no scalping



No roots near crown results in scalping



No roots near crown results in scalping





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