Cogongrass

*Imperata cylindrica* (L.) Beauv.

Poaceae
Biology

• Native to southeast Asia
• Infests nearly 500 million acres worldwide, on every continent, except Antarctica
• Tropical and subtropical areas, limited spread to northern temperate regions
• Accidental (1911 – Mobile, AL) and intentional (1921 – Mississippi, 1930 – Florida) introductions
Background

Economic Uses

• Cultivated as a forage in central and north Florida
• Poor nutritional quality
Distribution

• Found throughout much of Florida
• Commonly found in disturbed areas, upland forests, rights-of-way, pine plantations, mining sites and abandoned areas
• Highly adapted to poor soils, drought, pyrogenic ecosystems
Cogongrass Distribution in Florida
Impacts

- Category 1 invasive species (FLEPPC)
  - Very aggressive spread into undisturbed sites
- Strong competitor, forms large monotypic stands, alters ecosystems due to fire adaptation (frequency and intensity)
- Becoming a major problem in rangeland
- Allelopathy, deterring growth of neighboring plants
Identification
Mature Plant

- Perennial grass, 2 to 6 feet tall
- Extensive rhizome system
- Successful in low light environments
- Forms large monocultures
Leaves

- Leaf blades - 2 to 6 feet long, ½ to ¾ inch wide
- Leaves originate from ground level, rhizome
- Prominent, off-center midrib
- Finely serrated margins, accumulates silica
Panicle

- Flowers in spring or in response to stress, drought, fire
- Long, fluffy-white seedheads
- Seeds extremely small, plume of long hairs – wind dispersed
Management

Preventative

Cultural

Mechanical

Biological

Chemical
Preventative

1. Remove existing plants, including rhizomes before seeds are produced
2. Prevent movement of plant material, such as rhizome contaminated fill dirt, into areas not infested with cogongrass
Cultural

1. Programs to educate farmers, ranchers and the general public about the problems associated with cogongrass and proper identification.
1. Limited success with natural pests
2. Isolated pathogens, but no effective control
Mechanical

1. Small infestations can be removed with repeated, aggressive tillage
   - Limited to open (non-forested) sites
   - Deep plow or disk, several times during season
   - Desiccates rhizomes & exhaust food reserves
   - Cut to a depth of at least 6 inches

2. Burning effective in removing above ground biomass, may enhance chemical control measures – but will not provide control!!
Chemical

1. Broadcast applications for large areas
   - Glyphosate at 2 to 4 lbs-ai/A
   - Imazapyr at 0.5 to 1.0 lbs-ai/A

2. Spot treatment for smaller areas
   - Glyphosate – 2 to 3% solution
   - Imazapyr – 0.5 to 1% solution

3. Use surfactant at 0.25%

4. Adhere to planting restrictions for imazapyr, may cause residual damage
Soil Activity!!
Integrated

1. For best results combine:
   - Burning
   - Tillage (mechanical disturbance)
   - Chemical applications

2. Burn or mow before herbicide application
   - Remove excess thatch and older leaves
   - Initiates regrowth from rhizomes, reduces rhizome biomass