

# Corn Gluten



# Research History

- Discovered in 1986 at Iowa State University by Dr. Nick Christians.
- Researchers were using food grade corn meal as a growth media for Pythium.
- Although the Pythium did not grow, researchers noticed reduced bentgrass growth on putting green plots treated with the corn.

# Research History

- Further research established that corn gluten meal has the ability to stop root formation.
- It only works at time of germination.
- A patent as a natural weed control was granted in 1991.

# Research History

- Research isolated Alaninyl-Alanine as an inhibitory compound in corn gluten meal.
- Four other inhibitory compounds have also been identified.

# Research History

- It was registered as an herbicide with the Environmental Protection Agency (EPA) in August 1994.
- First marketed in 1995 under the name A-MAIZING Lawn.



# What is Corn Gluten?

- Corn Gluten meal is the protein fraction of corn.
- It is a by-product of corn wet milling.
- Due to its high protein content it is primarily used in animal feeds i.e.- livestock, poultry, dogs and fish.



# How to Use Corn Gluten

- Although produced as a fine yellow powder it can be pelletized or granulated for ease of use.
- Also available in a water soluble (hydrolyzed) form.
- Applied before weed seeds germinate. Even up to 3-5 weeks before weeds germinate.
- Best applied at 20 lbs per thousand square feet.

# How to Use Corn Gluten

- Should be watered in after application, but heavy moisture will cause the protein to leach.
- A short dry period of 4 to 5 days is desired after application to kill germinated weeds that haven't formed a root.
- Corn gluten is effective for about 5-6 weeks after proper application.

## Get the Real Thing

- In recent years there has been an increased substitution of corn gluten feed and distillers grain for real corn gluten meal.
- **These products are not the real thing.** They are not corn gluten meal.
- Ensure the corn gluten meal you purchase has a protein level of 60%.

# Precautions

- **Do NOT** apply on newly seeded grass - wait until after first mowing.
- **Do NOT** apply under windy conditions if you are using the meal form.
- **Do NOT** apply in the spring if over-seeding or sodding in the spring.
- **Do NOT** apply in the fall if over-seeding or sodding in the fall.

# Residual Activity

- Unknown.
- Excessive rain at time of treatment may reduce effectiveness.

Corn Gluten Meal is not a substitute for balanced fertility.

A healthy lawn care program should consider a proactive vs. reactive approach.