

# **Products for Organic Weed Management**

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# Introduction

## Weed Control in Organic Systems

Mechanical

Cultural

Biological

Natural Products

# Natural Products

Vinegar

Corn Gluten

## Sources

Vinegar (38% Acetic acid): Fisher Scientific

Corn Gluten: Grain Processing Co., Iowa

# Vinegar

Mode of Action: Loss of membrane integrity

Leakage of cellular fluids.

Non-selective, larger weeds less affected,

Should be registered as a herbicide to be used.

Effective at 5 to 20%.

More information:

[www.barc.usda.gov/anri/sasl/vinegar.html](http://www.barc.usda.gov/anri/sasl/vinegar.html)

[www.ars.usda.gov/is/pr/2002/020515.html](http://www.ars.usda.gov/is/pr/2002/020515.html)

[www.garden-ville.com](http://www.garden-ville.com)

[www.greensense.net](http://www.greensense.net)

[www.bradfieldind.com](http://www.bradfieldind.com)

# Corn Gluten

Mode of Action: Inhibits root elongation

Peptides present in the meal are the active ingredients

Grasses and small seeded broadleaves more susceptible

More information:

<http://www.gluten.iastate.edu/>

<http://www.uwex.edu/ces/wihort/turf/CornGluten.htm>

## 2002 Research: Corn Gluten



## Rates of Application:

10, 20, and 40 lbs of Corn Gluten/1000 sq ft.  
Applied PRE to tilled field



## Preliminary Results – Corn Gluten

Corn gluten - Initially, 50 to 75% fewer weeds than Control

Effect was only temporary

Weeds were more vigorous in treated plots

Control



Corn Gluten @ 40 lb/A



## 2002 Research: Vinegar

Applied at 4.5, 9.0 and 18% (Acetic acid)  
Directed application, drift-guard nozzles



## Preliminary Results – Vinegar

Quick burdown (within 5 hours after treatment)

Non-Selective (has to be direct-applied)

Young actively growing lambsquarters, carpetweed, pigweed, pokeweed, velvetleaf, nightshades, most grasses were susceptible

Only species that was found to be tolerant was Yellow Nutsedge

Regrowth of perennials noted; No residual activity on annuals

