Introduction

Despite claims to the contrary, overall, there are no viable, efficacious, or economical Green Alternatives to replace conventional pest control products. Virtually all Green Alternatives are BOGUS, displaying negative characteristics such as the following:

- Green Alternatives may be ALMOST TOTALLY INEFFECTIVE except under very specific circumstances.
- Green Alternatives may be PROHIBITED in some jurisdictions.
- Green Alternatives may be questionably HIGHER IN TOXICITY.
- Green alternatives may be STUNNINGLY MORE EXPENSIVE to use when compared to conventional pest control products.
- Green Alternatives may be SUPPLIED by the same Environmental-Terror-O rganizations that sought the prohibition of conventional pest control products.
- Green alternatives may have NEGATIVE SIDE-EFFECTS like phyto-toxicity (an effect that adversely affects plant growth) or corrosion or rodent-attractant.
- Green Alternatives may require EXTREMELY-HIGH-INPUTS OF ACTIVE INGREDIENT since they will otherwise be less effective.
- Green Alternatives may require MORE PERSONAL PROTECTION for the user.
- Green Alternatives may NOT BE SAFER, NOT BETTER, NOT MORE EFFECTIVE.

General Description of Corn Gluten Meal

Corn Gluten Meal is a "natural" turf herbicide. It is derived from plant materials, and has been patented as a natural pre-emergent herbicide for the control of weeds in turfgrass.

Active Ingredients in Corn Gluten Meal

Corn Gluten Meal is a by-product of the corn wet-milling process, and is used for animal feed. It contains mixture of protein, lipid, carbohydrate, and ash. Additionally, Corn Gluten Meal contains 10 percent nitrogen by weight, and is a source of nitrogen.

mode of action of corn gluten meal

Corn Gluten Meal is classified as a pre-emergent herbicide, which means that it inhibits or suppresses certain weeds before they germinate and sprout from the soil. Moreover, this product will not provide the same eradicative effect of conventional post-emergent herbicides like 2,4-D and Killex, and it is certainly not an effective alternative.

Corn Gluten Meal has no post-emergent effect on weeds, and, unfortunately, it may actually increase the growth of established and uncontrolled weeds since it does provide nitrogen with every treatment.
Time of Application of Corn Gluten Meal

Corn Gluten Meal must be applied BEFORE weed seeds germinate.

Following treatment, weed seedling shoots will emerge normally, but the development of the emerging root is "inhibited / suppressed" by Corn Gluten Meal.

After a period of water stress, the seedlings wilt and die because their root systems have not developed properly.

By contrast, conventional herbicides, like 2,4-D and Killex, will quickly destroy the entire weed.

A program of one to three applications of Killex will provide season-long control of the majority of broad-leaved weeds.

Corn Gluten Meal will fail to control weeds with the same success as conventional herbicides like 2,4-D and Killex.

Suppression versus Control

Corn Gluten Meal cannot be consistently considered as a true alternative to conventional herbicides, since the weed pests are often only "inhibited" or "suppressed", and NOT controlled.

"Inhibition / suppression" occurs when less than fifty percent of the damaging weed population is killed by an application of herbicide.

Full effective control can only be attained with conventional pest control products, such as 2,4-D and Killex, which will provide a very high percent kill of damaging weeds.

Storage of Corn Gluten Meal

Corn Gluten Meal ATTRACTS RODENTS.

Furthermore, even with minimal ambient moisture in a typical warehouse, Corn Gluten Meal will turn MOULDY.

Consequently, Corn Gluten Meal presents a MAJOR STORAGE PROBLEM!

Once Corn Gluten Meal has been purchased, it must be used within a short space of time.

At the end of the season, leftover Corn Gluten Meal cannot be stored in an unsupervised and unprotected storage area.

Prohibition of Corn Gluten Meal

Corn Gluten Meal is PROHIBITED in some jurisdictions, like the Province of New Brunswick.

Several jurisdictions are already prohibiting other Green Alternative Products because they are deemed as DUBIOUS lower-risk alternatives to conventional products!

Even the LOGUS Green Alternatives are now at risk of being the subject of conspiracies that lead to NEEDLESS, SENSELESS, and MALICIOUS PROHIBITION policies!

Health Effects of Corn Gluten Meal

Corn Gluten Meal is alleged to be a so-called "lower-risk green alternative to conventional turf herbicides".

This may not be true.

Corn Gluten Meal may be unexpectedly HIGHER in toxicity.

Contact with Corn Gluten Meal may cause TEMPORARY MILD IRRITATION.

Corn Gluten Meal may cause SENSITIZATION TO THE SKIN AND EYES.

People with known corn allergies should avoid exposure.

Conclusion

Corn Gluten Meal is NOT SAFER, NOT BETTER, NOT MORE EFFECTIVE when compared to conventional pest control products like 2,4-D or Killex.
Corn Gluten Meal did not prevent weeds from germinating in Oregon State University study

June 2010
Oregon State University
Department of Extension & Experiment Station
Retrieved from Web Site
Selected and adapted excerpts

Corn Gluten Meal is a natural substitute for a synthetic «pre-emergence» herbicide, and has been advertised as a more environmentally friendly way to control weeds. [?!?!]

A pre-emergent herbicide is one that kills seedlings as they germinate.

Pre-emergent herbicides generally have to be applied and watered in BEFORE weed seeds germinate.

Other herbicides, such as glyphosate (e.g. Roundup) kill plants AFTER they have emerged.

A by-product of commercial corn milling, Corn Gluten Meal contains protein from the corn.
Researchers at Oregon State University were UNABLE to duplicate results reported by Iowa State researchers.

It poses no health risk to people or animals when used as an herbicide.

With 60 percent protein, it is used as feed for livestock, fish and dogs.

It contains 10 percent nitrogen, by weight, so it acts as a fertilizer as well.

The use of Corn Gluten Meal as an herbicide was discovered by accident during turfgrass disease research at Iowa State University.

Researchers noticed that it prevented grass seeds from sprouting.

Further research at Iowa State showed that it also effectively prevents other seeds from sprouting, including seeds from many weeds such as crabgrass, chickweed, and even dandelions.

Components in Corn Gluten Meal called DIPEPTIDES are apparently responsible for herbicidal activity.

Researchers at Oregon State University were NOT able to duplicate research results reported by Iowa State researchers, said Oregon State University turfgrass specialist Tom Cook.
A former graduate student, Chris Hilgert, completed his Masters Thesis by investigating Corn Gluten Meal use as a pre-emergent herbicide in shrub beds and on lawns.

In their trials with Corn Gluten Meal, Hilgert and Cook found the following — Corn Gluten Meal did not control any weeds in any trials under any circumstances over a two-year period.

They found NO evidence of pre- or post-emergence weed control in any of their trials.

Because it contains 10 per cent nitrogen, Corn Gluten Meal proved to be a VERY EFFECTIVE FERTILIZER, causing lush, dense growth of turfgrass and of weeds in shrub beds.

James Alland, Nursery Crops Specialist at Oregon State University’s North Willamette Research and Extension Center in Aurora, spoke to his observations when Corn Gluten Meal was used in plant nurseries as a pre-emergent herbicide.
According to Alland —

"I've seen nursery situations where the applied product caused a bad odor, as do some herbicides, and attracted rodents. In nursery situations, where the goal is complete weed suppression, my overall impression is that it does not work that well."

"My overall impression has been that in turfgrass it provides a lot of nitrogen. Thicker, denser turf from high nitrogen rates will reduce weed numbers alone, without the help of herbicides."

"Applying twenty pounds per one-thousand square feet of Corn Gluten Meal would be equivalent to two pounds of nitrogen per one-thousand square feet. That's a lot of nitrogen! Applying that much nitrogen is not good for the environment. It does not matter if it is a « natural » fertilizer or not. That nitrogen will ultimately be converted to nitrates, which potentially could leach into groundwater."

It is not clear why the commercial version of Corn Gluten Meal used in Oregon State University trials was not effective, said Cook.

One possibility is that the product as formulated for sale has a short shelf life, and loses potency during manufacture, shipping and storage.

Further research needs to be done to test this hypothesis, he said.
The truth, of course, is that a billion falsehoods told a billion times by a billion people are still false.