

Reduced-Risk pesticides and Biopesticides for T&O use

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What are ‘reduced-risk’ pesticides?

Identified by EPA’s Conventional Reduced-Risk Pesticide Program as:

“*Viable alternatives* to riskier conventional pesticides such as neurotoxins, carcinogens, reproductive and developmental toxicants, and groundwater contaminants.”

Source: US EPA; <http://www.epa.gov/opprd001/workplan/reducedrisk.html>

Reduced-risk pesticides generally:

- ✓ Have low human health impact
- ✓ Have low non-target toxicity
- ✓ Are unlikely to contaminate groundwater
- ✓ Have low use rates
- ✓ Have low potential for pest resistance
- ✓ Are compatible with IPM practices

What are 'biopesticides'?

Bio-pesticides are derived from natural materials such as animals, plants, microorganisms, and certain minerals.

Biopesticides are regulated and registered by the EPA's Office of Pollution Prevention

Source: US EPA; <http://www.epa.gov/pesticides/biopesticides/whatarebiopesticides.htm>

Where/why should I use these materials?

- ✓ Changing regulations
- ✓ Sensitive sites
- ✓ Customer and stakeholder concerns
- ✓ ORGANIC! (or *are* they...?)

FiNALSAN[®]

CONTACT HERBICIDE

- ✓ Herbicidal soap (ammonium nonanoate)
- ✓ OMRI-listed
- ✓ Non-systemic, non-selective
- ✓ No residual or soil activity, rapidly biodegraded
- ✓ Slightly- or non-toxic to birds and fish
- ✓ Will not contaminate surface or groundwater when used according to the label (per EPA)

FIESTA[®]

TURF WEED KILLER

Selective broadleaf herbicide for turf use

- ✓ Chelated iron, FeHEDTA
- ✓ The only reduced-risk alternative to 2,4-D
- ✓ No adverse effects on mammals, birds, invertebrates, or non-target plants (per EPA)
- ✓ Will not accumulate in drinking water when used according to the label directions (per EPA)

SEDUCE, BUG-n-SLUGGO and SLUGGO PLUS T&O

OMRI-listed Ant, Insect, and Snail/Slug Bait

0.07% Spinosad, with or without Iron Phosphate

Spinosad is concentrated on/near the pellet surface

Attractive, palatable and rain-fast

0.5 – 1lbs/1000sqft (< 10% of allowed annual max)



New Coated Pellet is visibly distinct, it is brick-red

FERROXX and SLUGGO:

Biopesticide Slug and Snail Baits

By Neudorff

- ✓ Active Ingredient is iron
- ✓ Inert bait pellet is a food-grade 'pasta'
- ✓ Mode of action is to block oxygen transport and utilization
- ✓ EPA-registered as reduced-risk products
- ✓ Direct replacement for metaldehyde

- ✓ Superior efficacy
- ✓ Immediate plant protection
- ✓ Broad and inclusive label
- ✓ No regulatory or environmental baggage
- ✓ Greater stakeholder acceptance and confidence

Landscape uses restricted to 6 app/yr,
with a 21 day interval.

New max rate: 1lb ai/ac (25lbs/ac or
0.57lbs/1000 sqft of 4% bait)

Broadcast or foliar application
prohibited

“Application to turf and dichondra are prohibited.”

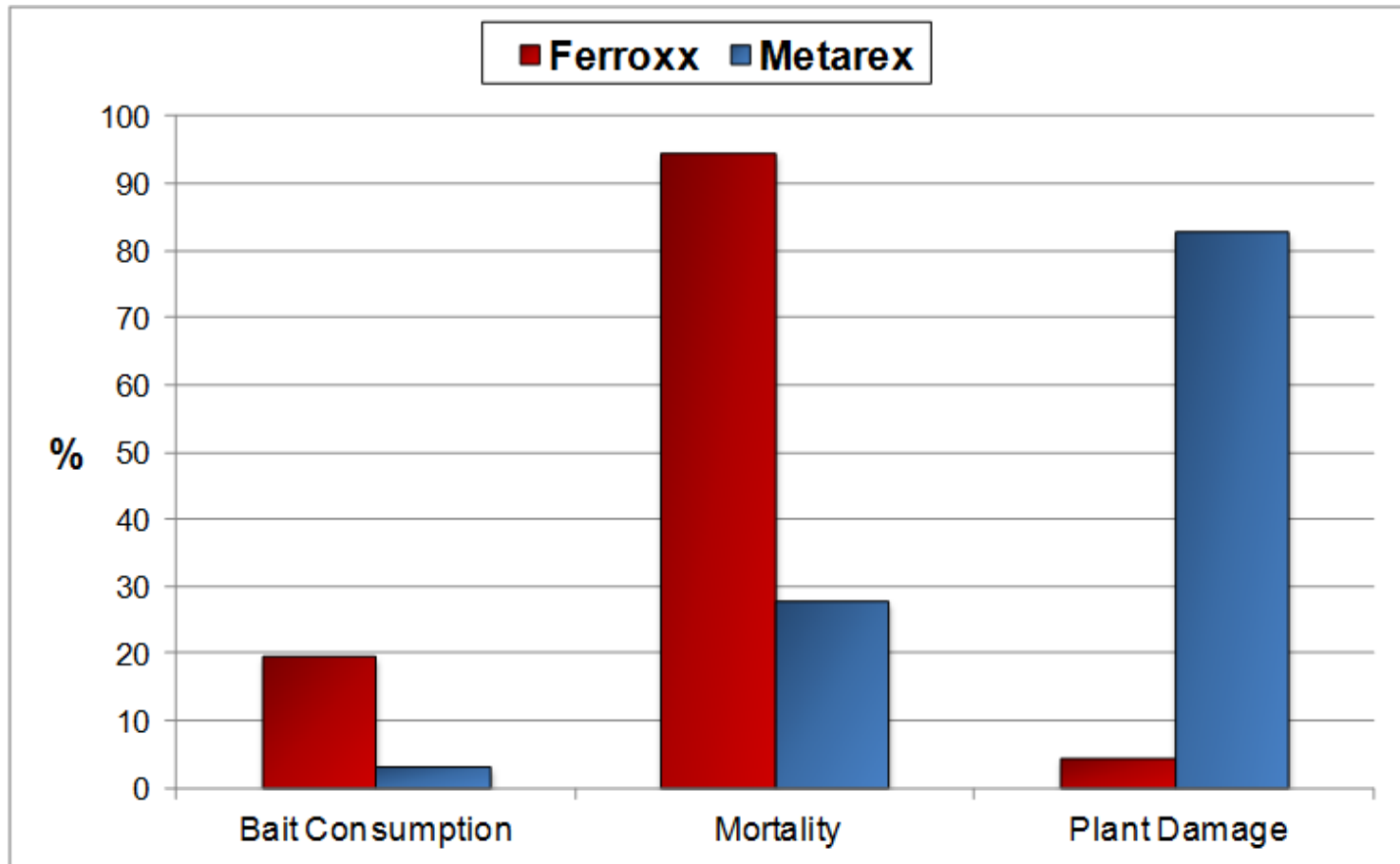
“Application is permitted only as a barrier around gardens or individual plants.”

“Application is prohibited within one foot of vegetable plants or fruit-bearing plants not listed on this label.”

“Application of this product is prohibited unless children and domestic animals can be excluded from the treated area from the start of the application until application material is no longer visible”

Mode of action is:

- ✓ Irreversible
- ✓ Not dependent on dehydration
- ✓ Independent of temperature
- ✓ Does not inhibit pest feeding



Attractive, palatable bait ensures efficacy

Source: Arndt R, 2011

Questions?

Thank you for your time
and attention!

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