



Idaho/E. Oregon Alfalfa Seed Meeting January 10, 2017

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Preferential Treatment for your Crops



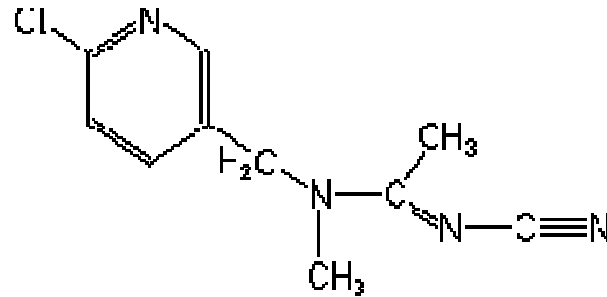
ASSAIL 30SG
INSECTICIDE



ASSAIL 70WP
INSECTICIDE



Assail insecticide



- Active Ingredient
 - *acetamiprid*
- Chemical Name
 - (E)-N¹-[(6-chloro-3-pyridyl)methyl]-N²-cyano-N¹-methyl acetamidine
- Chemical Class
 - Neonicotinoid
- Insecticide Class
 - 4A



Assail 70WP

ID-OR SLN for Seed Alfalfa

- Use on lygus bugs (nymphs to adults)
- Use rate 1.1 to 1.7 oz/acre
- Can be used when bee boxes are in the field
- Do not spray over foraging bees!
 - Late evening, overnight, or early am
- Do not use on water-stressed or dryfarm seed (translocation needed)

Assail insecticide

Mode of Action

A single-site activity insecticide that interrupts the insect's nervous system (nicotinic acetylcholine receptor).

- causes restlessness/convulsions
- inhibits feeding reflex
- effects insect behavior



Assail Offers Rapid Absorption Translaminar Activity

> controls pests on
the sprayed upper
surface, and unsprayed
under surface where
insects can feed



Assail insecticide

Ecological Effects

- Minimal risk to fish and wildlife
- Selective only to insects
- Low risk to endangered species
- Low to moderate toxicity to bees unless exposed to direct treatment



Assail 3-Way Insect Activity

1. Rapid knockdown
 - control exhibited within 2-hours after application
 - important for reducing insect feeding activities at or after egg hatch
2. Contact mortality
 - ovicide, larvicide, adulticide
3. Ingestion mortality
 - larvicide, adulticide

*Spray Coverage is
Important*



Assail performs on Existing and New Crop Surfaces

- Residual control up to 20+ days after application.
- Protects newly developed leaf tissue 5 to 10 days after application.
- Provides anti-feeding activity 20+ days after application.



Key Benefits of Assail

- Translaminar control
- Rapid pest knockdown
- Controls both 'sucking' and 'chewing' insects for broad spectrum insect control
- Excellent residual control
- Low use rates
- Great organophosphate replacement
- EPA 'reduced risk' insecticide

Bee Toxicity and Neonicotinoids



House bill H.R. 2692, "Saving America's Pollinators Act"



The Save America's Pollinators Act of 2013

Congressman Earl Blumenauer • Third District of Oregon • www.blumenauer.house.gov

Background

Pollinators—including honeybees, bumble bees, butterflies, and other insects—play an important role in our farms, flower gardens, and food. In fact, some of the crops most important to Oregon—such as alfalfa, blueberries, citrus, cranberries, grapes, hops, and vegetable seed, squash, and watermelons—depend on pollinators. An estimated 70% of America's food crops are pollinated, and the economic value of these crops is as high as \$150 billion annually.

American bee populations have declined significantly in the past few years. More than 30% of the honeybee population has died off, and significant losses of other pollinators, such as monarch butterflies, have also occurred. The use of neonicotinoid pesticides, which are highly toxic to pollinators, has limited the use of neonicotinoid pesticides and has led to the decline of these populations. That has

(a) IN GENERAL.—Not later than 180 days after the date of the enactment of this Act, the Administrator of the Environmental Protection Agency shall suspend the registration of imidacloprid, clothianidin, thiamethoxam, dinotafuran, and any other members of the nitro group of neonicotinoid insecticides to the extent such insecticide is registered, conditionally or otherwise, under the Federal Insecticide, Fungicide, and Rodenticide Act (7 U.S.C. 136

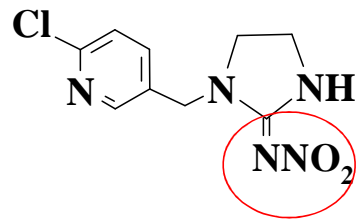


Bee Toxicity and Neonicotinoids

- IMPORTANT
 - The **CYANO**-based neonics are **NOT** included in the EU ban or the ban proposed in US House bill HR 2692
 - **Assail[®]** is a **CYANO**-based neonic insecticide.



Bee Toxicity and Neonicotinoids

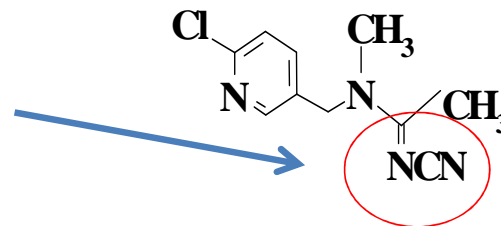


Nitro-Group Neonic –

Subject to EU ban and proposed US action. (eg. Admire, Provado, Belay, Clutch, Actara, Centric, Scorpion, Venom)

Cyano-Group Neonic
NOT subject to any proposed action.

(This group includes Assail)





Tricor & RR alfalfa

- Use only after stand is established
- Relatively inexpensive additional weed control
- Aids in controlling potentially glyphosate-resistant weeds
- May be able to use the lower rate



Asulox[®] SLN's Idaho/Oregon

For control of specific troublesome weeds
Prickly lettuce, groundsel, dog fennel, wild oats, etc.
Use 3.0-3.6 pts on young, actively growing weeds

Hydrothol[®] 191

- Use as a crop-finishing agent that aids in maturing seed pods prior to desiccation for better germination of the seed crop.
- Apply 7-10 days before plant desiccation

All terrestrial uses will be cancelled at some point due to the cost of required bee study.

Hydrothol® 191

Spray Recommendations

- Rate range $\frac{3}{4}$ to 2 quarts/acre
- Heavy stands: use higher rate or make 2 applications (penetrate canopy)
- Use at least 10 gallons finished spray, up to 20 gallons for heavy stands
- Addition of AMS or silicone adjuvants recommended for best results