

# Picarbutrazox

## Fungicide

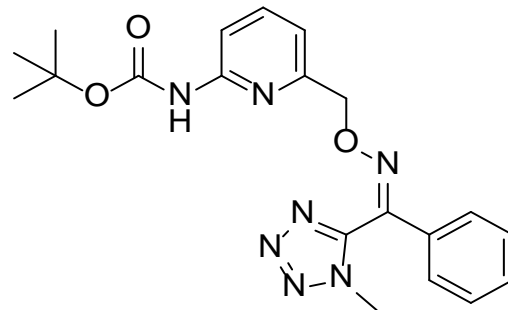
*New Active Ingredient*  
from Nippon Soda Co., Ltd.

IR-4 Food Use Workshop  
September 20, 2017  
Denver

# Picarbutrazox

## ➤ New Mode of Action

- FRAC Code U17
- Tetrazolyloxime Class
- Translaminar activity
- Targets oomycetes



tested effective against *Bremia*, *Pythium*, *Peronospora*, *Pseudoperonospora*, and *Phytophthora* spp.

## ➤ No cross-resistance with other chemicals

CAA-fungicides (Carboxylic Acid Amides); PA – fungicides (Phenyl Amides); QoI-fungicides (Quinone outside Inhibitors)

## ➤ Favorable toxicity, ecotox and e-fate profiles

## ➤ Signal Word - Caution

# Picarbutrazox

## Regulatory Background

### US/Canada

- Proposed crops: Cucurbits (Crop group 9)  
Leafy Greens (Crop subgroup 4-16A)  
Seed treatment of corn and soybean  
Turf

### Japan

- Recently registered crops: cucumber, melon, watermelon, cherry tomato, lettuce crop group, broccoli, cabbage, Chinese cabbage, onion, Japanese radish, rice, spinach, and turf

### EU

- Proposed crops: cucurbits, tomato, lettuce

### Korea

- Proposed crops: cucumber, melon, onion, potato, turf

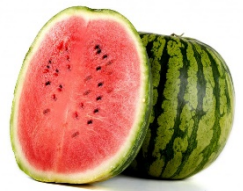
# Picarbutrazox – North America

- Joint Review between U.S. EPA and PMRA
  - Reduced Risk Submission
  - Anticipated Federal Registration: March 2019
  - Concurrent Review with CDPR
  
- Nisso to register the technical active ingredient and two end use products:
  - Agricultural – Picarbutrazox 10 SC (foliar)
    - 100 g a.i./L liquid suspension concentrate
  - Turf – Picarbutrazox 20 WG (professional use only)
    - 200 g a.i./kg wettable granule

# Picarbutrazox 10 SC

## Cucurbit Crop Group 9

Target Pathogen – *Pseudoperonospora cubensis* (Downy Mildew)



### Proposed use pattern:

- Rate: 0.07 – 0.09 lb. ai/A (75 - 88 g ai/ha) per application
- 3 applications per crop
- 5-day spray interval
- 0-day PHI
- 3 crops per acre per year/ 30-day PBI
- 4 hour REI

# Picarbutrazox 10 SC, Cucurbits

- Provided excellent disease control (equal or greater than industry standards) under heavy disease pressure
- Product Tested vs. Industry Standards
  - Torrent 400 SC (0.07 lb. ai/A)
  - Ranman (0.07 lb. ai/A)
  - Presidio (0.12 lb. ai/A)
  - Zampro (0.48 lb. ai/A)
  - Dithane (1.0 lb. ai/A)
  - Omega 500 (0.52 lb. ia/A)
- No phytotoxicity observed for any treatments

# Picarbutrazox 10 SC

## Leafy Greens, Crop Subgroup 4-16A

Target pathogen - *Bremia lactucae*, *Peronospora farinose* f. sp. *spinaciae*  
(Downy Mildew)



### Proposed use pattern:

- Rate: 0.07 - 0.09 lb. ai/A ( 75 - 88 g ai/ha) per application
- 3 applications per crop
- 5-day spray interval
- 2-day PHI
- 3 crops per acre per year/30-day PBI
- 4-hour REI

# Picarbutrazox 10 SC, Leafy Greens

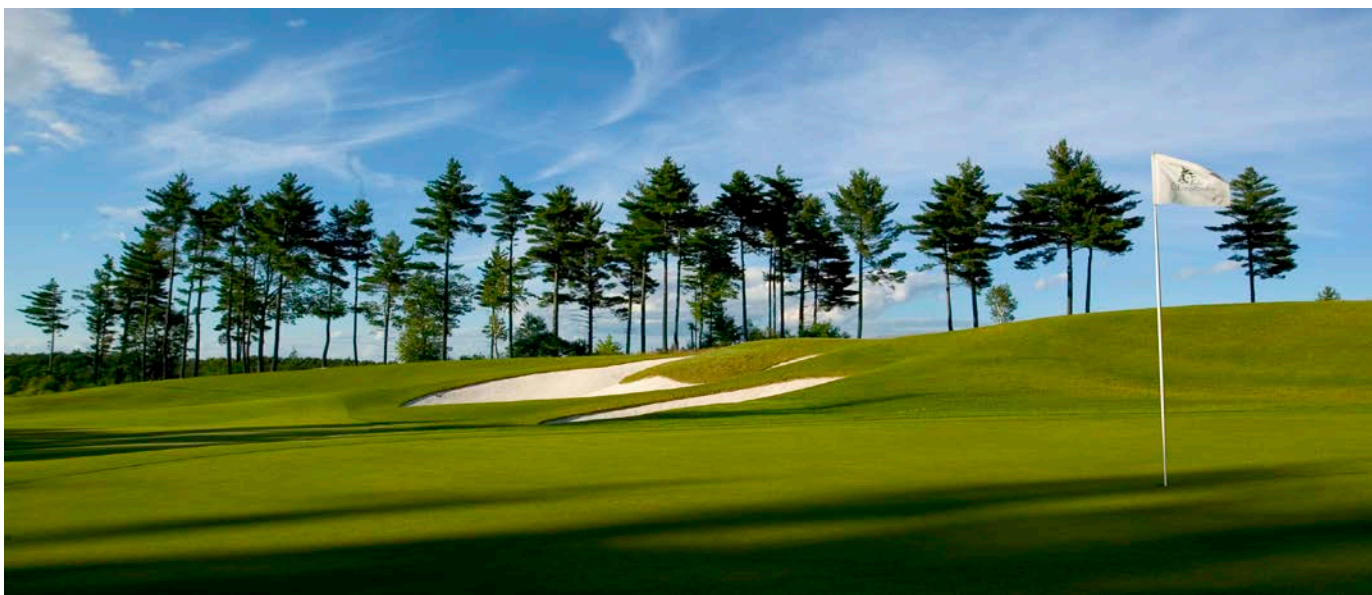
- Performed statistically similar to industry standards under heavy disease pressure
  
- Product Tested vs. Industry Standards
  - Aliette (4.01 lb. ai/A)
  - Presidio (0.12 lb. ai/A)
  - Ridomil Gold (1.3 lb. ai/A)
  - Zampro (0.48 lb. ai/A)
  
- No phytotoxicity observed in any treatments



# Picarbutrazox 20 WG

Professional Turf - Golf courses, parks, turf farms, PMPs

- Target pathogen – *Pythium aphanidermatum* (Pythium foliar blight)
- Proposed rate: 0.4 – 0.6 oz./1,000 ft<sup>2</sup> (0.005-0.0075 lb. ai/1,000 ft<sup>2</sup>) per application
- 4 applications per year
- 14-day spray interval



# Picarbutrazox 20 WG

- Performed statistically similar to industry standards under heavy disease pressure
  
- Product Tested vs. Industry Standards
  - Subdue Maxx (Metalaxyl) - 1 oz./1,000 ft<sup>2</sup>
  - Segway (Cyazofamid) - 0.45 oz./1,000 ft<sup>2</sup>
  
- No phytotoxicity observed for any treatments

Thank you!

