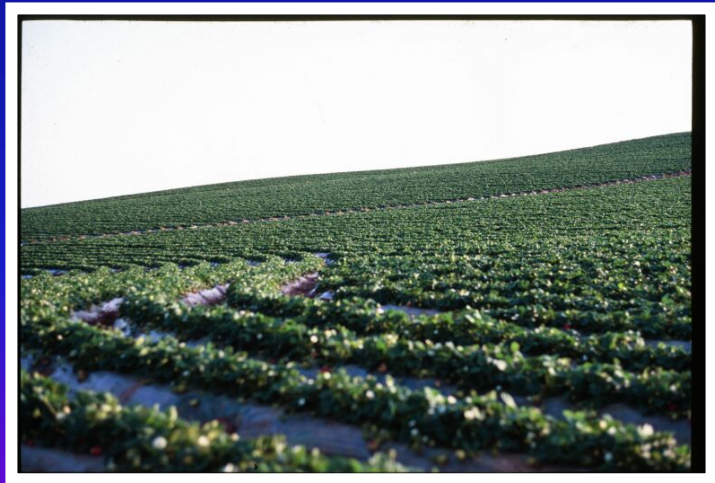


# MIDAS



## Midas™, (Iodomethane, TM-425)

<b>Chemical Name:</b>	<b>Iodomethane, (Methyl Iodide)</b>
<b>Product Type:</b>	<b>Soil Fumigant</b>
<b>Family of Chemistry:</b>	<b>Alkyl Halide</b>
<b>Geography:</b>	<b>World-wide</b>
<b>Signal Word:</b>	<b>Danger-Poison</b>
<b>Toxicity Class:</b>	<b>I</b>
<b>Formulations:</b>	<b>98:2 Iodomethane:Chloropicrin other</b>
<b>Target Pests:</b>	<b>Weed seeds, plant parasitic nematodes, soil-born fungi and bacteria</b>
<b>Crops:</b>	<b>Strawberries, fresh market tomatoes, peppers, cut flowers and bulbs, trees, conifer nurseries, vines, turf, and other</b>
<b>Comments:</b>	<b>Toxicology and efficacy studies are ongoing. Earliest plant back 7 days REI 36 hours</b>

# Application Information

- Factors to consider...
  - Pest identification and incidence
    - Disease, weed seeds, nematodes and insects
  - Soil type
    - Heavy to light texture
  - Ground preparation
    - Tilt, presence of plant / weed trash
  - Environmental
    - Temperature, moisture content
- Soil Pathogens 120 – 175 lbs/A
- Nematodes 100 – 150 lbs/A
- Weed Seeds 100 – 150 lbs/A
- Insects 100 – 150 lbs/A

# Application Methods



Flat Fume / Broadcast

Bed Shank

Drip Injection



Tarp:  
Standard or VIF  
Shallow to 12" – required  
Deep +18" - Optional

# Iodomethane Efficacy Comparison

Data listed on the following slides represents efficacy trials conducted by University, USDA-ARS and Private Contractors. The rating system is compiled to show the technical feasibility between Iodomethane and Methyl Bromide

- (+) = Comparable: Iodomethane control is lower than Methyl Bromide's but not statistically different
- (++) = Equal: Iodomethane control is at least equal to but not statistically different from Methyl Bromide's
- (+++)= Better: Iodomethane control is statistically greater than Methyl Bromide's

# MIDAS Nematode Control

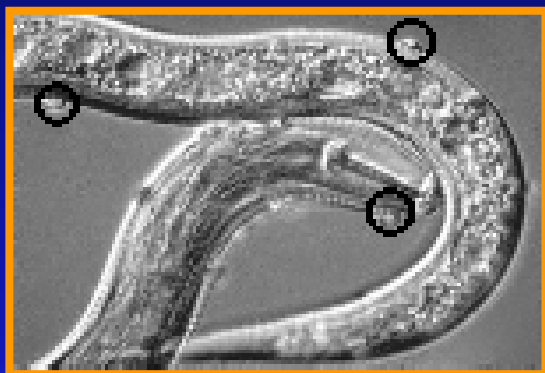
*Pratylenchus* sp.  
Lesion nematode ++

*Paratrichodorus* spp.  
Stubby root nematode ++

*Belonolaimus* sp.  
Sting nematode ++

*Tylenchorhynchus* spp.  
Stunt nematode ++

*Meloidogyne incognita*  
Root knot nematode ++



*Heterodera schachtii*  
Cyst nematode +++

*Xiphinema americanum*  
Dagger nematode ++

*Tylenchulus semipenetrans*  
Citrus nematode ++

*Paratylenchulus* spp.  
Pin nematode ++

**Overall Rating = ++**

*Aphelenchoides* spp.  
Bud and Leaf ++

(+) = Comparable    (++) = Equal    (+++) = Better



# MIDAS Disease Control



*Verticillium dahliae* +++  
*Phytophthora cactorum* +++  
*Phytophthora cinnamomi* +  
*Phytophthora citrophthora* ++  
*Fusarium oxysporum* ++  
*Rhizoctonia solani* +++  
*Pythium ultimum* ++  
*Pythium aphanidermatum* ++  
*Gliocladium virens* ++  
*Colletotrichum gloesporioides* ++  
*Cylindrocladium* spp. ++  
*Sclerotinia* spp. ++

Overall Rating = ++

(+) = Comparable    (++) = Equal    (+++) = Better



# MIDAS Weed Seed Control



Mallow ++

Nutsedge ++

Bluegrass ++

Rye ++

Sowthistle +++

Bermuda ++

Purslane ++

Vetch +

Filaree +

Groundsel +

Lambsquarters ++

Pigweed ++

Crabgrass +

Carpetweed +++

Bindweed +++

Knotweed ++

Chickweed ++

Mustard ++

Spurge +

Nettle +

Clover ++

Hairy Nightshade ++

London Rocket ++

Pineapple Weed ++

Shepherds Purse ++

Skunk Weed ++

Volunteers ++

Overall Rating = ++

(+) = Comparable    (++) = Equal    (+++) = Better



# IR-4 Support Request

- EPA has agreed to consider an “All Crops” registration based on a reduced site and crop residue program for Iodomethane
  - CHEMSAC has approved this protocol
  - No parent residues present in Tomato and Strawberry

# All Crops Rationale

- D. Thompson proposed a 1X and 3X use rate on wheat and radish
- Radish is a root crop, short season, maximum opportunity to accumulate residues
- Wheat is a crop that often picks up residues when other crops do not
- 5 locations proposed, major geographic regions (FL, CA, MI/OH, OR/WA, NY/NJ )

# Registration Timeline

- EPA
  - EPA is committed to give a registration decision by the end of 2003.
- STATES
  - Florida – Awaiting US EPA decision.
    - No delay in registration expected.
  - California – Is considering a *conditional* registration based upon favorable Interim Chronic study (2004) results.