

# Chemical Factsheet

## Emamectin Benzoate

### General Information

- Product Names:
  - Denim (Syngenta)
  - Emamectin (Syngenta)
  - Optigard (Syngenta)
  - Proclaim (Syngenta)
- Chemical Class: Avermectin insecticide
- Uses: Agriculture
- Alternatives: [Organic Agriculture](#)
- Beyond Pesticides rating: [Toxic](#)

### Health and Environmental Effects

See *citations at end of document*.

- Cancer: Not documented
- Endocrine Disruption: Not documented
- Reproductive Effects: Not documented
- Neurotoxicity: Yes (1)
- Kidney/Liver Damage: Not documented
- Sensitizer/ Irritant: Not documented
- Birth/Developmental: Yes (1)
- Detected in Groundwater: Not documented
- Potential Leacher: Not documented
- Toxic to Birds: Not documented
- Toxic to Fish/Aquatic Organisms: Yes (2)
- Toxic to Bees: Yes (2)

### Residential Uses as Found in the ManageSafe™ Database

- [Emerald Ash Borer](#)

### Additional Information

- Supporting information:
  - [PAN Pesticides Database](#): (Pesticide Action Network)
- Studies [compiled from the [Pesticide-Induced Diseases Database](#)]
  - [The potential immunotoxicity of emamectin benzoate on the human THP-1 macrophages](#). Wei, Z., Wang, W., Fu, W., Zhang, P., Feng, H., Xu, W., Tao, L., Li, Z., Zhang, Y. and Shao, X., 2022. Environmental Toxicology.

### Gateway Health and Environmental Effects Citations

1. The Pesticide Management Education Program at Cornell University. Pesticide Active Ingredient

Information. <http://pmep.cce.cornell.edu/profiles/index.html>.

2. Pesticide Action Network Pesticide Database. [http://www.pesticideinfo.org/Search\\_Chemicals.jsp](http://www.pesticideinfo.org/Search_Chemicals.jsp).

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