

# DuPont™ Provaunt®

## INSECTICIDE

### Professional Products

GROUP	22	INSECTICIDE
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A water dispersible granular insecticide for the control of lepidopterous larvae (including armyworms, cutworms, sod webworms, bagworms, fall webworms, gypsy moth caterpillars, tent caterpillars, tussock moth caterpillars and yellownecked caterpillars) and certain other pests infesting landscape and recreational (including golf courses) turfgrass and landscape ornamentals.

**Active Ingredient** **By Weight**

Indoxacarb*	
(S)-methyl 7-chloro-2,5-dihydro-2-[[methoxy-carbonyl][4(trifluoromethoxy)phenyl]amino]-carbonyl]indeno[1,2-e][1,3,4]oxadiazine-4a-(3H)-carboxylate	30.0%
<b>Other ingredients</b>	<b>70.0%</b>
<b>TOTAL</b>	<b>100.0%</b>

\*Indoxacarb belongs to the oxadiazine chemical class.

EPA Reg. No. 352-716      EPA Est. No. \_\_\_\_\_

**Net Contents:** \_\_\_\_\_

E. I. du Pont de Nemours and Company

1007 Market Street

Wilmington, Delaware 19898

#### FIRST AID

**IF SWALLOWED:** Call a poison control center or doctor immediately for treatment advice. Have person sip a glass of water if able to swallow. Do not induce vomiting unless told to do so by the poison control center or a doctor. Do not give anything by mouth to an unconscious person.

**IF IN EYES:** Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. Call a poison control center or doctor for treatment advice.

**IF ON SKIN OR CLOTHING:** Remove contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes. Call a poison control center or doctor for treatment advice.

**IF INHALED:** Move person to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably by mouth-to-mouth, if possible. Call a poison control center or doctor for treatment advice.

Have the product container or label with you when calling a poison control center or doctor, or going for treatment. You may also contact 1-800-441-3637 for emergency medical treatment information.

For information on the use of this product call DuPont Professional Products at 1-888-6-DUPONT (1-888-638-7668).

**KEEP OUT OF REACH OF CHILDREN  
CAUTION**



The miracles of science™

## **PRECAUTIONARY STATEMENTS HAZARDS TO HUMANS AND DOMESTIC ANIMALS**

Caution!: Harmful if swallowed. Causes moderate eye irritation. Harmful if absorbed through skin. Avoid contact with skin, eyes or clothing. Wash thoroughly with soap and water after handling. Harmful if inhaled. Avoid breathing (dust, vapor or spray mist). Remove contaminated clothing and wash clothing before reuse. Prolonged or frequently repeated skin contact may cause allergic reactions in some individuals.

## **PERSONAL PROTECTIVE EQUIPMENT**

Some materials that are chemical resistant to this product are listed below. If you want more options, follow the instructions for Category A on the EPA chemical resistance category selection chart.

Applicators and other handlers must wear:

- Long-sleeved shirt and long pants
- Chemical Resistant Gloves Category A (such as butyl rubber, natural rubber, neoprene rubber or nitrile rubber), all > 14 mls.
- Shoes plus socks

After the product has been diluted in accordance with label directions for use, shirt, pants, socks, shoes and waterproof gloves are sufficient Personal Protective Equipment. Follow manufacturer's instructions for cleaning/maintaining personal protective equipment (PPE). If no such instructions for washables are available, use detergent and hot water. Keep and wash PPE separately from other laundry.

## **USER SAFETY RECOMMENDATIONS**

**USER SHOULD:** Wash hands before eating, drinking, chewing gum, using tobacco or using the toilet. Remove clothing immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.

## **ENVIRONMENTAL HAZARDS**

This pesticide is toxic to fish and aquatic invertebrates. Do not apply directly to water, to areas where surface water is present or to intertidal areas below the mean high water mark. Do not contaminate water when disposing of equipment rinsewater. Do not apply where/when conditions could favor runoff. Runoff from treated areas may be hazardous to aquatic organisms in neighboring areas. This product is highly toxic to bees exposed to direct treatment on blooming crops or weeds. Do not apply this product or allow it to drift to blooming crops or weeds while bees are actively visiting the treatment area.

## **DIRECTIONS FOR USE**

It is a violation of Federal law to use this product in a manner inconsistent with its labeling.

- Not for use on plants being grown for sale or other commercial use, or for commercial seed production.
- Do not formulate this product into other end-use products without written permission of DuPont Professional Products
- Do not apply this product through any type of irrigation system.
- Do not apply this product in commercial nurseries and greenhouses or on sod farms.
- Do not apply more than 24 ounces (equivalent to 0.45 lb of active ingredient) of product per acre per season in broadcast applications to turfgrass.
- Wait a minimum of 7 days to retreat.
- Keep people and pets away from treated areas until treatment has dried.

DuPont™ PROVAUNT® insecticide should be used only in accordance with recommendations on this label or in separate DuPont supplemental labeling that may be made temporarily available through local distributors, as a result of new EPA approvals. DuPont will not be responsible for losses or damages resulting from the use of this product in any manner not specifically recommended by DuPont. User assumes all risks associated with such non-recommended use.

## **GENERAL INFORMATION**

PROVAUNT® insecticide is a water dispersible granular that may be applied as a foliar or broadcast spray to control lepidopterous larvae (such as armyworms, cutworms, sod webworms, bagworms, fall webworms, gypsy moth caterpillars, tent caterpillars, tussock moth caterpillars, yellownecked caterpillars) and certain other pests on landscape and recreational (including golf course) turfgrass and landscape ornamentals including trees, shrubs, foliage plants, flowers and non-bearing fruit and nut trees, which will not produce a raw agricultural commodity during the season of application. PROVAUNT® insecticide may only be used on plants or turfgrasses that are being grown for aesthetic or recreational purposes or climatic modification in or around home lawns, residential dwellings, business and office complexes, shopping complexes, multi-family residential complexes, institutional buildings, airports, cemeteries, interior plantscapes, ornamental gardens, parks, playgrounds, schools, golf courses (tee box areas, roughs, fairways, greens, collars etc.), athletic fields and other landscaped areas.

PROVAUNT® insecticide is in GROUP 22 of the EPA's Insecticide and Acaricide Groups Based on Target Site of Action (EPA PR Notice 2001-5) and may be used in rotational resistance management programs. PROVAUNT® insecticide must be diluted with water before application.

## **INTEGRATED PEST MANAGEMENT (IPM) PROGRAMS**

DuPont™ PROVAUNT® insecticide is recommended for IPM programs on turf and landscape ornamentals because it does not directly impact natural arthropod predator and parasitoid populations including ladybird beetles, lacewings, minute pirate bugs and predatory mites. The feeding behavior of predatory beneficial arthropods will aid in extending natural control of other insect and mite pests and will reduce the possibility of secondary pest outbreaks. PROVAUNT® insecticide will reduce the target pest species that may serve as a food source for beneficial arthropods. If PROVAUNT® insecticide is tank-mixed with an insect control product that negatively impacts beneficial arthropods, then the full benefit of PROVAUNT® insecticide to the IPM program may not be realized.

### **APPLICATION TIMING**

PROVAUNT® insecticide applications should target lepidopterous larvae. Use sufficient water to obtain thorough, uniform coverage. Repeat applications may be made after 7 days, if necessary.

### **APPLICATION EQUIPMENT PREPARATION**

Application equipment must be clean and free of previous pesticide deposits before mixing PROVAUNT® insecticide.

#### **Mixing Directions:**

1. Use clean, well maintained application equipment.
2. Fill sprayer tank 1/4 to 1/2 full of water.
3. Then add PROVAUNT® insecticide directly to the sprayer tank.
5. Mix thoroughly to fully disperse the insecticide and continue agitation to keep the insecticide in suspension. Use mechanical or hydraulic agitation. Do not use air agitation.
6. The mixture should not be stored in the spray tank overnight.

#### **Tank-mixtures:**

PROVAUNT® insecticide may be tank-mixed with other pesticides. When tank-mixing PROVAUNT® insecticide with other pesticides, observe all precautions and limitations on each separate product label. No label application rates may be exceeded. PROVAUNT® insecticide cannot be mixed with any product containing a label prohibition against such mixing. The physical compatibility of PROVAUNT® insecticide may vary with different sources of pesticide products and local cultural practices. Any tank-mixture that has not been previously tested should be prepared on a small scale (pint or quart jar) using the proper proportions of pesticides and water to ensure the physical compatibility of the mixture.

#### **Tank-mixing Sequence:**

Add different formulation types in the sequence indicated below. Allow time for complete mixing and dispersion after the addition of each product.

1. Water soluble bags
2. PROVAUNT® and other water dispersible granules
3. Wettable powders
4. Water-based suspension concentrates

5. Water soluble concentrates
6. Oil-based suspension concentrates
7. Emulsifiable concentrates
8. Adjuvants, surfactants, oils
9. Soluble fertilizers
10. Drift retardants

### **APPLICATION EQUIPMENT CLEANING**

Prior to application, start with clean, well maintained application equipment. Immediately following application, thoroughly clean all application equipment to reduce the risk of forming hardened deposits that might become difficult to remove. Drain application equipment. Thoroughly rinse application equipment and flush hoses, boom and nozzles with clean water. Clean all other associated application equipment. Take all necessary safety precautions when cleaning equipment. Do not clean equipment near wells, water sources or desirable vegetation. Dispose of waste rinse water in accordance with local regulations.

### **RESISTANCE MANAGEMENT**

Some insects are known to develop resistance to products used repeatedly for control. When this occurs, the recommended dosages fail to suppress the pest population below threshold levels. Because the development of resistance cannot be predicted, the use of this product should conform to resistance management strategies established for the use area. These strategies may include incorporation of cultural and biological control practices, alternation of active classes of insecticides on succeeding generations and targeting the most susceptible life stage. Consult your local DuPont Professional Products representative, Cooperative Extension Service specialist or pest control advisor for the latest information on resistance management in your area.

### **APPLICATION RATES FOR LAWNS, GOLF COURSES AND OTHER RECREATIONAL-TURFGRASS AREAS**

To ensure optimum control of lepidopterous larvae, delay watering (irrigation) and mowing for 24 hours after application. If the grass area is being maintained at a mowing height of greater than 1 inch, then the higher application rate (4 ounces per acre) may be required during periods of high pest pressure. For maximum residual effectiveness, PROVAUNT® insecticide may be applied at up to 12 ounces per acre (0.275 ounces per 1,000 square feet = 0.225 lb AI/A).

Target Pest	Product per Acre	Product per 1,000 Square Feet	lb AI/A
Caterpillars (including armyworms, cutworms and sod webworms)	2 to 4 Ounces	0.046 to 0.092 Ounces	0.0375 to 0.075
European Crane Fly Larvae	6 to 12 Ounces	0.138 to 0.275 Ounces	0.1125 to 0.225
Grasshoppers Mole Crickets* Annual Bluegrass Weevil Larvae* (Curative)	12 Ounces	0.275 Ounces	0.225

Annual Bluegrass Weevil Control Program Targeting Overwintered Adults and First Generation Larvae*			
Target Pest	Product per Acre	Product per 1,000 Square Feet	lb AI/A
Annual Bluegrass Weevil Adults (Preventative)	12 Ounces	0.275 Ounces	0.225
<b>Approximately three weeks after the Preventative treatment (above) apply the Curative treatment (below):</b>			
Annual Bluegrass Weevil Larvae (Curative)	12 Ounces	0.275 Ounces	0.225

\* Not approved for use in California

## APPLICATION RATES FOR ORNAMENTAL PLANTS (EXTERIOR LANDSCAPES AND INTERIOR PLANTSCAPES)

Apply the desired application rate of DuPont™ PROVAUNT® insecticide as a full coverage foliar spray. Repeat treatment as necessary to achieve control using higher application rates as pest pressure and foliage area increases. Repeat applications must be limited to no more than once per seven days. Certain plant species or cultivars may be sensitive to the final spray solution. If local experience is not available, then a small number of plants should be treated and observed for phytotoxicity for at least one week before making application to the entire planting.

Target Pests	Product per 100 Gallons	lb AI per 100 Gallons	PPM	Percent AI
Leaf-feeding caterpillars (such as bagworms, gypsy moth caterpillars, tent caterpillars [including eastern tent caterpillar], tussock moth caterpillars [including whitemarked tussock moth], webworms [including fall webworm] and yellownecked caterpillars)	1.25 to 2.5 Ounces	0.023 to 0.046	28.1 to 56.2	0.0028 to 0.0056
European pine sawfly	2.5 to 5.0 Ounces	0.046 to 0.092	56.2 to 112.4	0.0056 to 0.01124
Potato leafhopper	5.0 Ounces	0.092	112.4	0.01124

## APPLICATION DILUTION CHART

Application Volume (Gallons per 1,000 Square Feet)	Application Rate (Ounces per Acre)	Application Rate (Ounces per 1,000 Square Feet)	Application Rate (lb A.I. per Acre)	Ounces of DuPont™ PROVAUNT® diluted to these volumes of finished spray			
				1 gallon	5 gallons	10 gallons	100 gallons
1	1	0.023	0.01875	0.023	0.115	0.23	2.3
1	2	0.046	0.0375	0.046	0.23	0.46	4.6
1	3	0.069	0.05625	0.069	0.345	0.69	6.9
1	4	0.092	0.075	0.092	0.46	0.92	9.2
1	6	0.138	0.1125	0.138	0.69	1.38	13.8
1	8	0.184	0.15	0.184	0.92	1.84	18.4
1	12	0.275	0.225	0.275	1.38	2.76	27.6
2	1	0.023	0.01875	0.012	0.058	0.115	1.15
2	2	0.046	0.0375	0.023	0.115	0.23	2.3
2	3	0.069	0.05625	0.035	0.173	0.345	3.45
2	4	0.092	0.075	0.046	0.23	0.46	4.6
2	6	0.138	0.1125	0.069	0.345	0.69	6.9
2	8	0.184	0.15	0.092	0.46	0.92	9.2
2	12	0.275	0.225	0.138	0.69	1.38	13.8
3	1	0.023	0.01875	0.008	0.039	0.007	0.77
3	2	0.046	0.0375	0.015	0.077	0.154	1.54
3	3	0.069	0.05625	0.023	0.116	0.231	2.31
3	4	0.092	0.075	0.031	0.154	0.308	3.08
3	6	0.138	0.1125	0.046	0.231	0.462	4.62
3	8	0.184	0.15	0.062	0.308	0.616	6.16
3	12	0.275	0.225	0.092	0.462	0.924	9.24
4	1	0.023	0.01875	0.006	0.029	0.058	0.58
4	2	0.046	0.0375	0.012	0.058	0.116	1.16
4	3	0.069	0.05625	0.017	0.087	0.174	1.74
4	4	0.092	0.075	0.023	0.116	0.232	2.32
4	6	0.138	0.1125	0.035	0.174	0.348	3.48
4	8	0.184	0.15	0.116	0.232	0.464	4.64
4	12	0.275	0.225	0.070	0.348	0.696	6.96

- To convert from ounces to grams, multiply by 28.35.
- 1 ounce = 28.35 grams.
- Do not use household utensils to measure PROVAUNT® insecticide

## STORAGE AND DISPOSAL

Do not contaminate water, food or feed by storage and disposal.

**PESTICIDE STORAGE:** Store product in original container only in a location inaccessible to children and pets. Do not contaminate water, other pesticides, fertilizer, food or feed in storage.

**PESTICIDE DISPOSAL:** Do not contaminate water, food or feed by storage and disposal. Pesticide wastes are acutely hazardous. Improper disposal of excess pesticide, spray mixture or rinsate is a violation of Federal Law. If these wastes cannot be disposed of by use according to label instructions, contact your State Pesticide or Environmental Control Agency, or the Hazardous Waste representative at the nearest EPA Regional office for guidance.

### CONTAINER HANDLING:

**Nonrefillable Plastic Containers (Capacity Equal to or Less Than 50 Pounds):** Nonrefillable container. Do not reuse or refill this container. Offer for recycling if available Triple rinse container (or equivalent) promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank. Fill the container 1/4 full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times. Then offer for recycling if available or puncture and dispose of in a sanitary landfill, or by incineration, or, if allowed by state and local authorities, by burning. If burned, stay out of smoke.

**Nonrefillable Plastic Containers (Capacity Greater Than 50 Pounds):** Nonrefillable container. Do not reuse or refill this container. Offer for recycling if available. Triple rinse container (or equivalent) promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank. Fill the container 1/4 full with water. Replace and tighten closures. Tip container on its side and roll it back and forth, ensuring at least one complete revolution, for 30 seconds. Stand the container on its end and tip it back and forth several times. Turn the container over onto its other end and tip it back and forth several times. Empty the rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Repeat this procedure two more times. Then offer for recycling if available or puncture and dispose of in a sanitary landfill, or by incineration, or, if allowed by state and local authorities, by burning. If burned, stay out of smoke.

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