



Turf™ Products

Insect Control

on DG Pro®

FEATURES & USE TIPS:

- Patent pending synergistic combination of insecticides
- Contains bifenthrin and carbaryl for multi-mode insect control
- Effective for curative treatment of white grubs.
- DG Pro dispersible granule carrier, to provide higher particle count and distribution of insecticide
- Broad spectrum insecticide for both preventative and curative control of surface and sub-surface feeding insects ("over and under")

PRODUCT SPECIFICATIONS:

Active Ingredients: Bifenthrin (0.058%)
Carbaryl (2.300%)

Following is a specimen label that may at some point be revised or otherwise become out of date. It is intended as a guide in providing general information regarding the use of this product. Always read and follow the label on the product container.

PRODUCT CODE:

APTDGDU4

Date: 091307
Supersedes: 030507
Label: D7

PRODUCT CHARACTERISTICS:

Product Type:

Granular Insecticide

Particle Size:

SGN: 150

Net Weight:

40 lbs.

Coverage:

20,000 sq. ft. @ Low
Rate

Bags/Pallet:

50

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To order, contact your local Andersons Golf Products distributor.

*For more information, contact Andersons at our website:
www.andersonsgolfproducts.com
or call 1-800-225-2639.*

PRODUCT SHEET



Turf Products

DUOCIDE™

Insect Control

on DG Pro®

For control of selected surface and subsurface pests on any turfgrass sites including residential lawns, parks and athletic fields and control of pests in and around flower beds, ornamental plantings and around buildings. Not for use on golf courses and sod farms.

- Effective for curative treatment of white grubs
- Patent pending synergistic combination of insecticides
- Broad spectrum combination insecticide

Active Ingredients

Bifenthrin†	0.058%
Carbaryl (1-naphthyl N-methylcarbamate)	2.300%
Other Ingredients	97.642%
Total	100.000%

*Cis isomers 97% minimum, trans isomers 3% maximum
† CAS No. 82657-04-6

Patent Pending

EPA Reg. No. 9198-235
EPA Est. No. 9198-OH-1M, 9198-OH-2B, 9198-AL-001A
Underlined letter is first letter used in run code on bag

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KEEP OUT OF REACH OF CHILDREN CAUTION

FIRST AID

Carbaryl is an N-Methyl Carbamate Insecticide.

GENERAL: Contact a physician immediately in all cases of suspected poisoning. Transport patient to a physician or hospital immediately and SHOW A COPY OF THIS LABEL TO THE PHYSICIAN. If poisoning is suspected in animals, contact a veterinarian.

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: Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes. Call a poison control center or doctor for treatment advice.

If swallowed: Call a poison control center or doctor for treatment advice. Have person sip a glass of water if able to swallow. Do not induce vomiting unless told to by a poison control center or doctor. Do not give anything by mouth to an unconscious person.

If inhaled: Move person to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably 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 1-800-757-8951 for emergency medical treatment information.

ANTIDOTE STATEMENT: ATROPINE SULFATE IS HIGHLY EFFECTIVE AS AN ANTIDOTE. See NOTE TO PHYSICIAN.

Note to Physician: Carbaryl is an N-methyl carbamate that inhibits cholinesterase. Atropine is antidotal. Do not use 2-PAM (pyridine-2-aldoxime methiodide), opiates or cholinesterase inhibiting drugs. Probable mucosal damage may contraindicate the use of gastric lavage.

This product is a pyrethroid. If large amounts have been ingested, milk cream and other digestible fats and oils may increase absorption and so should be avoided.

PRECAUTIONARY STATEMENTS HAZARDS TO HUMANS AND DOMESTIC ANIMALS

Causes moderate eye irritation. Avoid contact with eyes, skin or clothing. Wear protective eyewear. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, or using tobacco. Wear long sleeved shirt and long pants, socks, shoes and chemical resistant gloves (such as natural rubber). Prolonged or frequently repeated skin contact may cause allergic reactions in some individuals. Care should be used when applying to avoid fish and reptile pets in/around ornamental ponds. Harmful if inhaled, swallowed, or absorbed through the skin. Avoid breathing dust. Remove contaminated clothing before reuse.

Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables, use detergent and hot water. Keep and wash PPE separately from other laundry.

User Safety Recommendations

Users 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.
- Remove PPE immediately after handling this product. Wash the outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing.

User Safety Requirements: Applicators and other handlers must wear long-sleeved shirt and long pants, and shoes plus socks. Keep and wash PPE separately from other laundry, use detergent and hot water. Wash thoroughly with soap and water after handling this product, and 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 extremely toxic to fish, aquatic and estuarine invertebrates. Do not apply directly to water or to areas where surface water is present or to intertidal areas below the mean high water mark. Do not apply when weather conditions favor drift from treated areas. Drift and run-off from treated areas may be hazardous to aquatic organisms in neighboring areas. Do not contaminate water when cleaning equipment or when disposing of equipment washwaters or rinsate.

READ ALL DIRECTIONS PRIOR TO APPLICATION OF THE PRODUCT

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, or for research purposes. For use on plants being intended for aesthetic purposes or climate modification, and being grown in interior plantscapes, ornamental gardens or parks, or lawns or grounds.

In New York State, the product may NOT be applied to any grass or turf areas within 100 feet of a water body (lake, pond, river, stream, wetland or drainage ditch). In New York State, do make a single repeat application of this product if there are signs of renewed insect activity, but not sooner than two weeks after the first application.

Do not apply by air. Do not apply more than 690 lbs. of this product (0.4 lbs. bifenthrin, 16 lbs. carbaryl) per acre per year. Do not apply within 25 feet of lakes, reservoirs, rivers, permanent streams, marshes or natural ponds, estuaries and commercial fish farm ponds.

TURFGRASS PEST CONTROL

General Information

This product controls surface and subsurface feeding pests on turfgrass sites (lawns, sod, turf areas) such as, but not limited to: residential and commercial lawns, grounds or lawns around business and office complexes, shopping centers, multi-family and residential apartment complexes, airports, military and other institutions, cemeteries, parks and picnic areas, playgrounds, schools, athletic fields. Not for use on golf courses, sod farms, nurseries, commercial greenhouses or grass grown for seed.

The active ingredients in this product also provide both curative and residual control of listed surface feeding pests.

The regional differences in pest species pressure, timing for optimal control, pest monitoring methods and other particulars for your location will vary, so consult your cooperative extension service for details. Most states have taxpayer-supported internet web sites and other services to provide this very helpful information. Please use and continue to support your local extension services.

Application Directions:

Apply uniformly over the treatment area with either a broadcast or drop type spreader, avoiding spreaders which will apply product in narrow, concentrated bands. Apply only the specified amount in the following table. Calibrate the spreader before use and check periodically to ensure the equipment is working properly. Avoid overlaps that will increase rates above those recommended. Failure to follow the Directions for Use and all precautions may result in grass injury or poor pest control.

For optimal effectiveness, minimize thatch since heavy thatch will prevent the insecticide from penetrating to the area where insects are feeding. Although not dependent on immediate irrigation for activation, water must carry this material through the thatch. In conditions of drought it is recommended to water in this product.

Recent research has shown that well-maintained turf is an effective environmental buffer that prevents pollutants from entering our natural water bodies. To help protect these natural resources, please avoid applying product to sidewalks, driveways, roadways, and other impervious surfaces which are adjacent to storm drains. Sweep any misplaced granules back onto the area you are treating immediately after application, since storm drains often empty directly to nearby waterways.

Timing

Surface pests (leaf, crown and thatch inhabiting): Treat when pests or turf damage symptoms first appear, or when pests are detected by local site monitoring. Best results will occur if the treated area is thoroughly irrigated with water after application.

Subsurface pests (soil inhabiting): For best preventative treatment, apply 10 days to 2 weeks after egg-laying activity. As a curative treatment, apply when turf damage is first noted. Local site monitoring is recommended to determine optimal time of application. Contact your local State Extension Specialists for more specific information regarding the timing of applications, and for advice on how and when to monitor pest activity at your location. Some pests may have either single or multiple generations per year, depending on species, weather, and locale.

For best results, irrigate treated areas soon after application, enough to thoroughly wet the underlying soil; this washes the active ingredients down below the turf and thatch, and it encourages the subsurface pests to move upward in the soil profile where they will come in contact with the active ingredients. For best pest control and turf culture, minimize thatch buildup to no more than 0.5 in., using mechanical removal methods as needed.

Do not apply more than 345 lbs. of product per acre (0.2 lb. bifenthrin, 8.0 lb. carbaryl active ingredient per acre) per application on residential use sites (i.e. around private home, apartment buildings, condominiums, non-agricultural out-buildings, non-commercial greenhouses, pre-schools or day care facilities). May be applied up to 690 lbs. of product per acre (0.4 lb. bifenthrin, 16 lb. carbaryl active ingredient per acre) per application on non-residential use sites (i.e. around institutional, public, commercial or industrial buildings; parks; recreational areas or athletic fields).

Application Rates

Pest	Amount of Product
Armyworms (larvae), Cutworms, (larvae), Sod Webworms (larvae)	87 lb./acre (2 lb./1,000 sq. ft.)
Annual Bluegrass Weevil (<i>Hyperodes</i>) (Adult), Adults of Bluegrass Billbug, Hunting Billbug, Phoenician Billbug and Denver Billbug, Black Turfgrass Ateanien (Adult), Mealbugs, Leafhoppers, Chinch Bugs (nymphs and adults), Chiggers, Crickets, Marking Ground Beetles, Earwigs, Essex Skipper, Fire Brats, Grasshoppers, Silverfish, Spittlebugs Springtails.	87 - 174 lb./acre (2 - 4 lb./1,000 sq. ft.)
Ants, Centipedes, Fleas (Adult), Flea (Larvae), Millipedes, Ticks, Deer Ticks, American Dog Ticks, European Crane Fly, Imported Fire Ant (Adults), Mole Cricket (Adult), Mole Crickets (nymphs)	174 - 348 lb./acre (4 - 8 lb./1,000 sq. ft.)
White Grubs (larvae of Japanese Beetle, European Chafer, Northern Masked Chafer, Southern Masked Chafer, Oriental Beetle, Asiatic Garden Beetle, May/June beetle (<i>Phyllophaga</i> spp.)) Bluegrass billbug, Hunting Billbug, Phoenician Billbug, Denver (Rocky Mountain) Billbug, Green June beetle, Black Turfgrass ateianien, and Aphodius) and Annual Bluegrass weevil (<i>Hyperodes weevil</i>) and European Crane fly larvae	preventative: 87 - 174 lb./acre (2 - 4 lb./1,000 sq. ft.) curative: 174 - 348 lb./acre (4 - 8 lb./1,000 sq. ft.)

Armyworms, Cutworms, Sod Webworms: Apply when monitoring or damage symptoms for the larval stages of these pests warrant. For best results, the treated area should be irrigated immediately after application with up to 0.1 inches of water to activate the insecticide.

Annual Bluegrass Weevil (*Hyperodes*) (Adult): Treatment should be made to control the adult weevils as they migrate from their overwintering sites such as roughs and debris under ornamental plantings, shrubs and trees, especially White Pines, and move into grass areas. This movement generally begins when Forsythias bloom and ends

when flowering dogwoods are in bloom. There are often two generations in New York. Contact your State Cooperative Extension Service for more specific information.

Billbugs

(Adult/preventative): In temperate regions, apply when adult billbugs are first observed during April and May. These spring applications targeting billbug adults will also provide control of over-wintered chinch bugs. When possible, controlling the mobile adult stage helps prevent turf damage later in the year from the larvae. Consult your State Cooperative Extension Service for information on degree days, monitoring, and timing in your region. **(Larvae/curative):** This damaging stage may be found in cool season or temperate areas from May into October. The Hunting and Denver species overwinter as larvae, and Hunting Billbugs breed continuously in the Deep South. While most Billbugs in cool season areas typically have one generation per year, due to multiple generations in warmer regions, and extended egg-laying periods throughout their ranges, apply when damage from this stage is noticed. Irrigate thoroughly after application, enough to wet the underlying soil, for best results.

Black Turfgrass Ataenius (Adult): Apply treatments during May and July to control both generations of adults. The May application should be made at the same time as the full bloom stage of Vanhoutte spiraea (*Spiraea vanhouttei*) and Horse chestnut (buckeye tree) (*Aesculus hippocastanum*). The July application should coincide with the blooming of Rose of Sharon (*Hibiscus syriacus*).

Chinch Bugs: These pests infest the base of the plant and are usually found in the thatch layer. All three stages, eggs, nymphs and adults, may be present at the same time in late season temperate and southern locations. Treat when monitoring or damage indicates the presence of populations above damage thresholds. Watering the treated area with up to 0.25 inches immediately after application will result in quicker control. Higher application rates may be required to control both nymphs and adults during the summer or in warm season turf areas, and to provide extended residual control.

Flea Larvae: These larvae develop in the soil and shady areas. Irrigate the treated area with up to 0.5 inches of water immediately after application.

Imported Fire Ants: The best control will be reached by a combination of broadcast applications and mound drenching. If soil is not moist, then it is important to irrigate before application. Apply 4-8 lbs. per 1,000 sq. ft. to control foraging fire ants, high rates provide longer residual control. Use The Andersons Professional Turf Products 0.15G Prosect for mound drench treatments.

Mole Crickets

Adults: Achieving acceptable control of adult mole crickets may be difficult because preferred grass areas are subject to continuous invasion by this extremely active stage. Applications should be made as late in the day as possible and should be watered in with up to 0.5 inches of water immediately after treatment. If the soil is not moist, then it is important to irrigate before application to bring the mole crickets closer to the soil surface where contact with the insecticide will be maximized. Use The Andersons Professional Turf Products 0.15G Prosect for excellent control of the active adult stage of this pest.

Nymphs: Grass areas that received intense adult mole cricket pressure in the spring should be treated immediately before 1-2 weeks past peak egg hatch. Optimal control is achieved at this time because young nymphs are more susceptible to insecticides and they are located near the soil surface where the insecticide is most concentrated. Control of larger, more damaging, nymphs later in the year may require both higher application rates and more frequent applications to maintain acceptable control. Applications should be made as late in the day as possible and should be watered in with up to 0.5 inches of water immediately after treatment. If the soil is moist, then it is important to irrigate before application to bring the mole crickets closer to the soil surface where contact with the insecticide will be maximized.

Ticks: Do not make spot applications. Treat the entire area where ticks may occur. The higher application rate might be needed if heavy leaf litter or dense ground cover exists. Retreatment might also be necessary due to animals reintroducing new populations. Do not allow public use of treated areas during application.

Deer Ticks: These ticks have a life cycle that ranges over a two year period and involves four life stages. Treatments should be applied in mid- to late-spring to control larvae and nymphs that are present on the soil and leaf litter.

American Dog Ticks: These ticks tend to gather along paths or roadways where humans are likely to be found. Treatments should be made from mid-spring to early fall to control larvae, nymphs and adults.

White grubs: Preventative applications are made 10 days to 2 weeks following peak adult flight activity as determined by local site monitoring, or as recommended by local cooperative extension agents. Curative applications should be made when grubs are feeding near the soil surface, usually during late March through May or July to early September, when damage symptoms first become evident, or as recommended by extension. See the Comprehensive Turf Insect Control section below for more information on controlling grubs as well as surface pests. For best results, irrigate treated areas soon after application, enough to thoroughly wet the underlying soil. Use higher rates in areas of heavy pressure and where thatch is present in excess of 0.5 in. thickness. Reduce thatch by mechanical means for best turf quality and better control of grub species.

European Crane Fly: Adults emerge from the soil to lay eggs from late August to mid-September. In areas with historic problems, an October treatment can be used to control this pest at this early, most vulnerable larval stage, which will avoid damage the following year. Otherwise, monitor turf areas in winter and early spring when there is a consistent warmer period, treating when the larvae are present. Discontinue monitoring and control measures in early May, when these pests pupate and stop feeding.

Comprehensive Turf Insect Control

The "multiple target principle" of insect control utilizes strategically timed applications to manage multiple insect pests with minimal pesticide applications. For example, this product may be used as a curative application for white grubs in early August for cool season turf areas to control most white grub species. As the white grub life cycle chart for the cool season turf regions below illustrates, application timing in the indicated bracket area will control many of the grub species when they are at their most vulnerable, soon after egg hatch when grubs are small. During this period, adequate grub control can be obtained at 4 pounds per 1,000 sq. ft. in all but the most extreme situations (heavy thatch, heavy pressure), and the economical 2 pounds per 1,000 sq. ft. can handle most situations, especially when used in conjunction with early applications (see below).

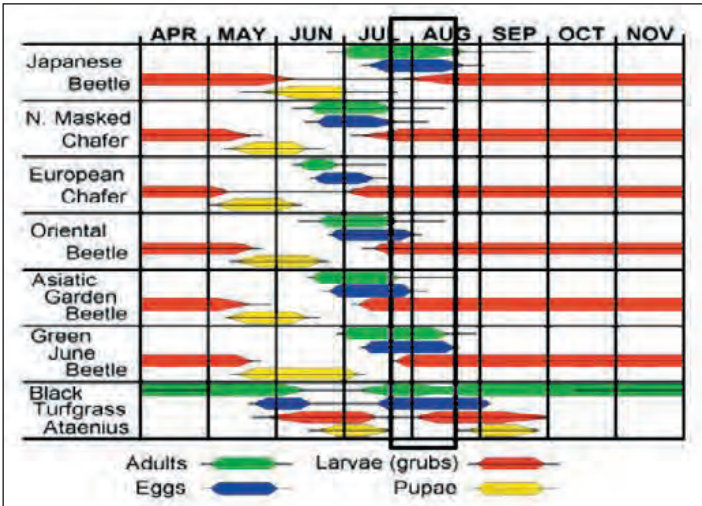


Chart: optimal cool season white grub application timing

In addition, early applications to control surface pests in mid-April to early or mid-May will also help control white grubs which have moved up as the soil warms into the surface soil, just below the grass and thatch. This application timing will reduce grub pressure from the over wintered grub generation, and can manage populations of turf surface pests as well.

Regional Timing for Comprehensive Turf Pest Control; general recommendations
Northeast and Midwestern states (bounded by the Dakotas, Nebraska, Kansas, Missouri, Kentucky, West Virginia and Maryland), apply mid-April to mid-May (early May for Chafers, see chart) as needed for surface pests and over wintered grubs before they pupate, then in late July through late August for newly hatched grubs and other late season pests.
Southern States (bounded by New Mexico, Oklahoma, Arkansas, Tennessee and Virginia), apply in April and July, using the higher rates for best results. Additional applications may be required where pest activity persists year-round.
Western States (bounded by Montana, Wyoming, Colorado and Arizona), apply in May and July. Applications in October through warm spells in winter and/or Spring may be needed for European Crane Fly control in the PNW, see detailed instructions above.

NUISANCE PEST CONTROL IN AND AROUND FLOWER BEDS AND ORNAMENTAL PLANTINGS AND AROUND BUILDINGS

For control of Ants, Armyworms, Ticks, Centipedes, Crickets, Cutworms, Earwigs, Firebrats, Silverfish, Fleas, Millipedes, Sowbugs: Apply granules uniformly in a 6 foot band around the building at the rate of 2-4 lbs. per 1,000 square feet to shrub and flower beds, foundations, ornamental plantings, and lawn or soil areas immediately adjacent to the building. For most effective control, treated areas should be lightly watered after application. Repeat treatments as necessary to control new infestations.

Suggested Spreader Settings					
These suggested spreader settings are not intended to replace calibration. Please calibrate your spreader before applying product.					
40 lbs. treats 20,000 sq. ft. (0.46 acre) at the 67 lbs. product/acre - LOW RATE (2.0 lbs/1,000 sq. ft.)					
40 lbs. treats 10,000 sq. ft. (0.23 acre) at the 174 lbs. product/acre - MEDIUM RATE (4.0 lbs/1,000 sq. ft.)					
40 lbs. treats 5,000 sq. ft. (0.11 acre) at the 348 lbs. product/acre - HIGH RATE (8.0 lbs/1,000 sq. ft.)					
SPREADER	GROUND SPEED	WIDTH OF COVERAGE	SPREADER SETTINGS		
			LOW RATE	MEDIUM RATE	HIGH RATE
Lb. active ingredient/acre (Bifenthrin, Carbaryl)			0.05 , 2.00	0.10 , 4.00	0.20 , 8.00
Andersons AccuPro 2000, SR-2000 (cone 6)	3 mph	11 feet	J 1/2	M	Q
Andersons AccuPro 1000	3 mph	11 feet	J 1/2	M	Q
Andersons SS-2 Drop	3 mph	overlap wheels	K	M	P 1/2
Scotts R-8A (cone 5)	3 mph	11 feet	I	K 1/2	P
Lesco 020093 (Pattern 0.25)	3 mph	5 feet	C 1/2	E	G 1/2
Lely Models WTR, WFR, HR-1250 (PTO at 450 rpm) Pattern III-C	4.5 mph	34 feet	4 1/4	5 3/4	7 1/2
Vicon (03 Series)	4.5 mph	20 feet	13	20	30

Note: These spreader settings were established using standard equipment available from the spreader manufacturer at swath widths and speeds typically used within the industry. It is recommended that all spreader equipment be calibrated at the time of application to achieve the desired application rate.

STORAGE AND DISPOSAL

Do not contaminate water, food, or feed by storage and disposal.
PESTICIDE STORAGE: Keep out of reach of children and animals. Store in original container only. Store in cool, dry place and avoid excess heat.
PESTICIDE DISPOSAL: Wastes resulting from the use of the product may be disposed of on site or at an approved waste disposal facility.
CONTAINER DISPOSAL: Non refillable container. Do not reuse or refill this container. Completely empty bag into application equipment. Then dispose of empty bag in a sanitary landfill or by incineration, or, if allowed by State and local authorities, by burning. If burned, stay out of smoke.

IMPORTANT: READ BEFORE USE:

Read the entire Directions for Use and the Warranty Disclaimer and Limitation of Liability before using this product. If terms are not acceptable, return the unopened product container at once. By using this product, user or Buyer accepts the following Warranty Disclaimer and Limitation of Liability:

WARRANTY DISCLAIMER and LIMITATION of LIABILITY:

Manufacturer warrants that this product conforms to the chemical description on the label and is reasonably fit for the purposes stated on the label when used in strict accordance with the directions. Manufacturer makes NO OTHER EXPRESS OR IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. Where permissible, it is Manufacturer's intent to LIMIT ANY LIABILITY FOR SPECIAL, CONSEQUENTIAL OR INCIDENTAL ECONOMIC DAMAGES to refund of purchase price or replacement of product, at Buyer's choice. Manufacturer DISCLAIMS ANY LIABILITY FOR COMPENSATORY OR OTHER DAMAGES ARISING OUT OF ANY USE CONTRARY TO LABEL DIRECTIONS. Use contrary to label directions is not permitted.

LEGAL RIGHTS:

THIS LIMITED WARRANTY GIVES YOU SPECIFIC LEGAL RIGHTS; YOU MAY HAVE OTHER RIGHTS THAT VARY FROM STATE/JURISDICTION TO STATE/JURISDICTION. (AP110606)

Manufactured by:
 The Andersons Lawn Fertilizer Division, Inc.
 P. O. Box 119
 Maumee, OH 43537

SGN 150
Net Wt. 40 Lbs. (18.14 kg)
Treats Up To 20,000 Sq. Ft.

APTDGDU4

D7b (BLKP1929B)