

Terra

Phorate 20G

20% granular systemic low-odor insecticide

RESTRICTED USE PESTICIDE

Due to acute oral, dermal and inhalation toxicity and avian hazards.

For retail sale to and use only by Certified Applicators or persons under their direct supervision and only for those uses covered by the Certified Applicator's certification.

ACTIVE INGREDIENTS

Phorate (O,O-diethyl-S-[(ethylthio)methyl]-phosphorodithioate) 20.0%

INERT INGREDIENTS 80.0%

Total 100.0%

EPA Reg. No. 9779-293

STOP—READ LABEL BEFORE USING.

KEEP OUT OF REACH OF CHILDREN

DANGER  POISONPELIGRO  VENENO

Si usted no entiende la etiqueta, busque a alguien para que se la explique a usted en detalle. (If you do not understand this label, find someone to explain it to you in detail.)

STATEMENT OF PRACTICAL TREATMENT ORGANOPHOSPHATE

FIRST AID TREATMENT: Call a doctor (physician), clinic, or hospital immediately. Explain that the victim has been exposed to Phorate and describe his condition.**IF BREATHING HAS STOPPED,** start artificial respiration immediately and maintain until doctor sees victim.**IF SWALLOWED,** call a physician or poison control center. Drink 1 or 2 glasses of water and induce vomiting by touching back of throat with finger, or, if available, by administering syrup of ipecac. **DO NOT INDUCE VOMITING OR GIVE ANYTHING BY MOUTH TO AN UNCONSCIOUS PERSON.****IN CASE OF CONTACT,** immediately flush eyes or skin with plenty of water for at least 15 minutes. See doctor immediately.

PRECAUTIONARY STATEMENTS

HAZARDS TO HUMANS AND DOMESTIC ANIMALS

DANGER



CAN KILL IF SWALLOWED

This product can kill you if swallowed, even in small amounts; spray mist may be fatal if swallowed.



CAN KILL BY SKIN CONTACT

This product can kill you if touched by hands or spilled or splashed on skin, in eyes or on clothing (liquid goes through clothes).



CAN KILL IF BREATHED

This product can kill you if vapors or spray mist are breathed.

WORK SAFETY RULES

REPEATED EXPOSURES TO CHOLINESTERASE INHIBITORS SUCH AS ARE CONTAINED IN THIS PRODUCT MAY, WITHOUT WARNING, CAUSE PROLONGED SUSCEPTIBILITY TO VERY SMALL DOSES OF ANY CHOLINESTERASE INHIBITOR.

Persons working with this product should have frequent blood tests of their cholinesterase levels. If the cholinesterase level falls below a critical point, no further exposure should be allowed until it has been determined by means of blood tests that the cholinesterase level has returned to normal. Before using this product, consult the National Pesticide Telecommunications Network for recommendations regarding such blood tests, poisoning management, emergency treatment, and other information regarding the toxicity of phorate. The toll free number for the National Pesticide Telecommunications Network is 1-800-858-7378.

If handled indoors provide mechanical exhaust ventilation.

Do not rub eyes or mouth with hands. If you feel sick in any way, STOP work and get help right away. See First Aid (Practical Treatment) section.

POISON SIGNS (Symptoms)—Phorate is a very dangerous poison. It rapidly enters the body on contact with all skin surfaces and eyes. Exposed persons must receive prompt medical treatment or they may die. Some of the signs and symptoms of poisoning are headache, nausea, vomiting, cramps, weakness, blurred vision, pin-point pupils, tightness in chest, labored breathing, nervousness, sweating, watering of eyes, drooling or frothing of mouth and nose, muscle spasms and coma.**NOTE TO PHYSICIAN:** Antidote—administer atropine sulfate in large doses. TWO TO FOUR mg. intravenously or intramuscularly as soon as cyanosis is overcome. Repeat at 5 to 10 minute intervals until signs of atropinization appear. 2-PAM chloride is also antidotal and may be administered in conjunction with atropine. **DO NOT GIVE MORPHINE OR TRANQUILIZERS.** Phorate is a strong cholinesterase inhibitor affecting the central and peripheral nervous systems and producing cardiac and respiratory depression. At first sign of pulmonary edema, the patient should be given supplemental oxygen and treated symptomatically. Continued absorption of the poison may occur and fatal relapses have been reported after initial improvement. **VERY CLOSE SUPERVISION OF THE PATIENT IS INDICATED FOR AT LEAST 48 HOURS.**

Personal Protective Equipment:

Applicators and other handlers must wear chemical-resistant protective suit, waterproof gloves, chemical-resistant footwear plus socks, protective eyewear, chemical-resistant headgear for overhead exposure, and a respirator with either an organic vapor-removing cartridge with a prefilter approved for pesticides (MSHA/NIOSH approval number prefix TC-23C), or a canister approved for pesticides (MSHA/NIOSH approval number prefix TC-14G).

Discard clothing and other absorbent materials that have been drenched or heavily contaminated with this product's concentrate. Do not reuse them. 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.

Engineering Controls Statement:

When handlers use closed systems, enclosed cabs, or aircraft in a manner that meets the requirements listed in the Worker Protection Standard (WPS) for agricultural pesticides [40 CFR 170.240 (d) (4-6)], the handler PPE requirements may be reduced or modified as specified in the WPS.

DURING AERIAL APPLICATION, HUMAN FLAGGERS ARE PROHIBITED UNLESS IN A TOTALLY ENCLOSED VEHICLE.

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.

ENVIRONMENTAL HAZARDS

This pesticide is extremely toxic to fish and wildlife. Birds feeding in treated areas may be killed. Do not apply directly to water, to areas where surface water is present or to intertidal areas below the mean high water mark. Drift and runoff may be hazardous to aquatic organisms in neighboring areas. Collect or incorporate granules that are spilled during loading or are visible on soil surface in turn areas. Do not contaminate water when disposing of equipment washwaters.

DIRECTIONS FOR USE

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

Do not use this product through any type of irrigation system.

NOT FOR USE OR STORAGE IN OR AROUND THE HOME.

Do not apply this product in a way that will contact workers or other persons, either directly or through drift. Only protected handlers may be in the area during application. For any requirements specific to your State or Tribe, consult the agency responsible for pesticide regulation.

AGRICULTURAL USE REQUIREMENTS

Use this product only in accordance with its labeling and with the Worker Protection Standard, 40 CFR part 170. This Standard contains requirements for the protection of agricultural workers on farms, forests, nurseries, and greenhouses, and handlers of agricultural pesticides. It contains requirements for training, decontamination, notification, and emergency assistance. It also contains specific instructions and exceptions pertaining to the statements on this label about personal protective equipment (PPE), notification to workers, and restricted-entry interval. The requirements in this box only apply to uses of this product that are covered by the Worker Protection Standard.

Do not enter or allow worker entry into treated areas during the restricted entry interval (REI) of 48 hours. Each 48-hr. REI is increased to 72 hours in outdoor areas where average rainfall is less than 25 inches per year.

Exception: If the product is soil-injected, or soil incorporated, the Worker Protection Standard, under certain circumstances, allows workers to enter the treated area if there will be no contact with anything that has been treated.

PPE required for early entry to treated areas that is permitted under the Worker Protection Standard and that involves contact with anything that has been treated, such as plants, soil, or water, is: chemical-resistant protective suit, waterproof gloves, chemical-resistant footwear plus socks, protective eyewear, and chemical-resistant headgear for overhead exposure.

Notify workers of the application by warning them orally and by posting warning signs at entrances to treated areas.

GENERAL DIRECTIONS

When using PHORATE 20G, pour downwind to minimize exposure to handlers. Spillage should be removed and burned. Apply PHORATE 20G with a granular pesticide applicator properly calibrated to assure accurate placement and proper dosage.

STORAGE AND DISPOSAL

DO NOT CONTAMINATE WATER, FOOD, OR FEED BY STORAGE OR DISPOSAL.

STORAGE

Store in a dry location away from children, animals, foods, feeds, seeds, and other agricultural chemicals. Keep container closed when not using. Do not allow water into container as this may cause deterioration of product. Handle in accordance with information given under PRECAUTIONARY STATEMENTS. Keep storage area locked when not in use. In the event of spillage or leakage, scrape up and dispose of in accordance with information given under PESTICIDE DISPOSAL. Repackage and relabel useable product in a sound container of a type approved by the U.S. Department of Transportation. In case of fire or other emergency, report at once by toll-free telephone to 800-424-9300.

DISPOSAL

PESTICIDE 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 DISPOSAL: 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.

TYPICAL APPLICATION RATES FOR VARIOUS ROW SPACINGS

(Equivalent pounds per acre)

Rate—Oz./1,000 Ft. of Row										
Row width (inches)	1.2 oz./1000 ft	3 oz./1000 ft	4.5 oz./1000 ft	6 oz./1000 ft	8 oz./1000 ft	10 oz./1000 ft	12 oz./1000 ft	14 oz./1000 ft	16 oz./1000 ft	18 oz./1000 ft
40"			3.7	4.9	6.5	8.2	9.8	11.4	13.1	14.7
38"			3.9	5.2	6.9	8.6	10.3	12.0	13.7	15.5
36"			4.1	5.4	7.3	9.1	10.9	12.7	14.5	16.3
34"			4.3	5.8	7.7	9.6	11.5	13.5	15.4	17.3
32"			4.6	6.1	8.2	10.2	12.2	14.3	16.3	18.4
30"			4.9	6.5	8.7	10.9	13.1	15.2	17.4	19.6
26"			5.7	7.5	10.0	12.6	15.1	17.6	20.1	22.6
24"			6.1	8.2	10.9	13.6	16.3	19.1	21.8	24.5
20"		4.9								
18"		5.4								
16"		6.1								
12"		8.2								
8"	4.9	12.2								
6"	6.5	16.3								

USE RECOMMENDATIONS BY CROP

CROP	PESTS	RATE	APPLICATION	REMARKS
BEANS At Planting Time	Mexican bean beetles	4.5-9.4 ozs. per 1,000 ft. of row for any row spacing (minimum 30-inch spacing)	Distribute the granules evenly in the row to the side of the seed at planting. Do not place PHORATE granules in direct contact with the seed.	Do not graze or feed treated hay or foliage to livestock. Do not apply later than 60 days before harvest.
	aphids, leafhoppers, Lygus bugs, mites, seedcorn maggots, thrips	4.5-7.0 ozs. per 1,000 ft. of row for any row spacing (minimum 30-inch spacing)		

CROP	PESTS	RATE	APPLICATION	REMARKS
FIELD CORN Application at Planting Time	corn rootworms, mites wireworms (North Central, Southeastern states only) seed corn beetle (Iowa and Illinois only) Reduction of white grubs (North Central States only)	6.0 ozs. per 1000 ft. of row for any row spacing (minimum 30-inch spacing)	Place granules in a 7-inch band over the row directly behind the planter shoe in front of the press wheel.	Do not place PHORATE granules in direct contact with the seed. One additional application can be applied at cultivation or over corn later in the season.
FIELD CORN Application at Cultivation	corn rootworms		Apply granules at time of cultivation in a band at base of plants just ahead of cultivator shovels so as to cover granules with soil. Apply in June as soon as rootworm activity is observed.	Do not make any applications of PHORATE after cultivation treatment.
	chinch bug nymphs (Colorado, Kansas, Nebraska)		Apply granules at time of cultivation in a band at base of plants just ahead of cultivator so as to cover granules with soil. Apply as soon as chinch bug nymphs are observed at base of plants. Granules must be placed at the infested region of the plants and adequately covered with soil.	Later infestations of chinch bugs may not be controlled. Do not make any applications of PHORATE after cultivation treatment.
Application Over the Plant	European corn borer (1st brood)	Broadcast the granules over the field by air or ground equipment at a rate of 5.0 lbs. per acre.	Apply granules into the whorl of the plant prior to tassel emergence.	Do not graze or cut for forage within 30 days of treatment. Do not make more than one application over the plant. Do not apply under prolonged drought conditions. Consult your State Experiment Station or State Extension Service for proper timing of application.
	corn leaf aphids, mites		Apply granules into the whorl of the plant.	

CROP	PESTS	RATE	APPLICATION	REMARKS
SWEET CORN Application at Planting Time	corn rootworms, mites	6.0 ozs. per 1,000 ft. of row for any row spacing (minimum 30-inch row spacing)	Place granules in a 7-inch band over the row directly behind the planter shoe in front of the press wheel.	Do not place PHORATE granules in direct contact with seed. One additional treatment can be made at cultivation.
	seed corn beetle (Iowa & Illinois only) Reduction of wireworms (North Central, Southeastern States only)			
Application at Cultivation Time	corn rootworms		Apply granules at time of cultivation in a band at base of plants just ahead of cultivator shovels so as to cover granules with soil. Apply in June as soon as rootworm activity is observed.	Do not make any later applications after cultivation treatment.
COTTON At Planting Time	early season aphids, leaf miners, mites, thrips	3.0 ozs. per 1,000 ft. of row for any row spacing (minimum 36-inch spacing)	Distribute the granules evenly in the furrow at planting time. Soil moisture and tilth should be favorable for good germination and emergence.	Suggested for areas where a limited period protection against early season pests is necessary for good cotton growth. Use 1.5 lbs. PHORATE 20G per acre for hill-dropped cotton.
	aphids, black cutworms, leafhoppers, leaf miners, mites, thrips, white flies	6.0-9.0 ozs. per 1,000 ft. of row for any row spacing (minimum 36-inch spacing)	Distribute the granules evenly in the furrow at planting time. Soil temperature, moisture and tilth should be favorable for good germination and emergence. Under adverse conditions plant stand may be affected.	Recommended for areas requiring an extended period of mite control as well as early season protection against other cotton pests. The higher rate is suggested for heavier soils.
At Side-Dressing Time (Irrigated cotton only)	mites from spring to early summer	9.0-12.0 ozs. per 1,000 ft. of row for any row spacing (minimum 36-inch spacing)	Incorporate granules into soil as a side-dress application deep enough to avoid disturbance by future cultivations.	Irrigate as soon as possible after treatment. Do not apply later than 60 days before harvest.
PEANUTS At Planting Time	leafhoppers, thrips	5.5 ozs. per 1,000 ft. of row for any row spacing (minimum 24-inch spacing)	Distribute the granules evenly in the furrow at planting time. For best results, plant peanuts when soil temperatures are favorable for establishing good peanut stands.	Do not graze or feed treated hay or forage to livestock.
At Pegging Time	leafhoppers, Southern corn rootworms	11.0 ozs. per 1,000 ft. of row for any row spacing (minimum 24-inch spacing)	Distribute the granules as a band over the fruiting zone at pegging time. Work into the top few inches of soil immediately.	This treatment will also control late infestations of leafhoppers. Do not graze or feed treated hay or forage.

CROP	PESTS	RATE	APPLICATION	REMARKS
POTATOES At Planting Time	Controls: aphids, flea beetle larvae, leafhoppers, leafminers, psyllids, wireworms	Light or Sandy Soils: 11.3 ozs. per 1,000 ft. of row for any row spacing (minimum 32-inch spacing)	Distribute the granules evenly in the furrow or granules may be banded on each side of the row at planting time.	Wait 90 days after treatment before harvesting potatoes.
	Suppresses: flea beetle adults	Heavy or Clay Soils: 7.3 ozs. per 1,000 ft. of row for any row spacing (minimum 32-inch spacing)		
	Colorado potato beetle (early season control)	Heavy or Clay Soils: 17.3 ozs. per 1,000 ft. of row for any row spacing (minimum 32-inch spacing)		
SORGHUM At Planting Time	aphids (greenbugs)	6.0 ozs. per 1,000 ft. of row for any row spacing (minimum 30-inch spacing)	Place granules 2 inches to side and 1 inch below the seed at planting or as a 7-inch band over the row just prior to press wheel.	Do not place PHORATE granules in direct contact with seed. A second application of granules may be applied topically after the season.
	Application at Cultivation	chinch bug nymphs (Colorado, Kansas, and Nebraska)	Apply granules at time of cultivation in a band at base of plants or over the row just ahead of cultivator so as to cover granules with soil. Apply as soon as chinch bug nymphs are observed at base of plants. Granules must be placed at the infested region of the plants and adequately covered with soil.	Later infestations of chinch bugs may not be controlled. Do not make any applications of PHORATE after cultivation treatment. Do not feed foliage before grain harvest.
Application Over the Plant	aphids (greenbugs), banks grass mites (excluding Trans Pecos area of Texas)	4.9 lbs. per acre	Broadcast granules into the whorls of the plants by air or ground equipment.	Make only one application after plant emergence. Do not apply within 28 days of harvest.
SOYBEANS At Planting Time	For the early season control of Mexican bean beetle and leafhoppers	9.0 oz. per 1,000 ft. of row for any row spacing (minimum 30-inch row spacing)	Distribute the granules evenly in the row to the side of the seed at planting time.	Do not place PHORATE granules in direct contact with the seed. Do not feed the foliage of treated soy-

CROP	PESTS	RATE	APPLICATION	REMARKS
	seedcorn maggots	9.0 ozs. per 1,000 ft. of row for any row spacing (minimum 30-inch row spacing)	Distribute the granules evenly in the row to the side of the seed at planting time, or place granules in a 7" band over the row directly behind the planter shoe in front of the press wheel.	beans. Crop injury may result when preplant incorporated or preemergence applications of metribuzin herbicides are used in conjunction with this product or other soil-applied organophosphate pesticides.
SUGAR BEETS At Planting Time	aphids, beet root maggots, leafhoppers, leafminers, mites	4.5 ozs. per 1,000 ft. of row for any row spacing (minimum 20-inch spacing)	Application should be made by drilling or broadcast at seeding time.	Do not place PHORATE granules in direct contact with the seed. Do not apply within 30 days of harvest. Do not feed sugar beet tops or silage to dairy cattle. Consult your State Experiment Station or State Extension Service for proper timing in your area.
Post-emergence	aphids, mites	4.9-7.5 lbs. per acre	Apply to foliage when plants are dry. Use the higher rate to dense foliage for good coverage. Foliar application by air may be used for aphid control when wet soil prohibits ground application.	
SUGAR-CANE (Florida)	wireworms	19.5 lbs. per acre	Apply in a 10-12 inch band directly on the seed piece and surrounding soil in the open furrow immediately before covering.	Do not graze or feed treated forage to livestock.
WHEAT Application at Planting Time	aphids (Western and North Central States only), grasshoppers, hessian fly	1.2 ozs. per 1,000 ft. of row for any row spacing (minimum 8-inch spacing)	Apply the granules in the seed furrow at planting time.	Do not feed or graze foliage within 45 days of treatment. Do not make any later applications after planting time treatment.
Application Over the Plant	aphids (Western States only)	4.9 lbs. per acre	Broadcast the granules evenly over the field by air equipment when aphids first appear.	Do not apply over plants if application was made at planting time. Do not make more than one application over the plants. Do not apply within 70 days of harvest of grain. Do not feed or graze foliage within 28 days of treatment.

settings for calibration at planting speeds of 5 or 7 mph and application rates of 4.5, 6.0, or 9.0 oz./1,000 ft. of row.

Applicator	SUGGESTED GRANULAR APPLICATOR SETTING					
	AT 5 MPH			AT 7 MPH		
	4.5 oz.	6.0 oz.	9.0 oz.	4.5 oz.	6.0 oz.	9.0 oz.
New Gandy	15	18	22	18	21	25
New Noble	6	8	11	8	11	14
Old Noble	8	11	16	12	15	22
International Harvester	1/5	1/7	2/1	1/7	2/0	2/8
New John Deere	9	13	10	13	19	26
Newest John Deere ¹	9	11	14	11	13	17
Old John Deere	1/23	1/26	2/3	1/26	1/32	2/14
Allis Chalmers	4	5	7	4	5	7

¹With aluminum funnel.

NOTE: The settings in this table SHOULD ONLY BE USED AS STARTING POINTS. Continually check the amount of PHORATE 20G used against a known length of row and make further adjustments accordingly. Also check calibration occasionally to make sure equipment wear, changing moisture conditions, or other factors have not caused a change in flow rate.

NOTICE

Seller warrants that the product conforms to its chemical description and is reasonably fit for the purposes stated on the label when used in accordance with directions under normal conditions of use, but neither this warranty nor any other warranty of merchantability or fitness for a particular purpose, express or implied, extends to the use of this product contrary to label instructions, or under abnormal conditions, or under conditions not reasonably foreseeable to Seller, and Buyer assumes the risk of any such use.

9/A07/8

CALIBRATION INFORMATION

FIRST READ LABEL. It is essential that applicator equipment be properly set to deliver the labeled rate. The chart below contains suggested starting gauge