

American Cyanamid Company  
P.O. Box 400  
Princeton, NJ 08543

NOV 21 1991

Gentlemen:

Subject: Thimet 15G Soil and Systemic Insecticide  
EPA Registration No. 241-145  
Thimet 20G Soil and Systemic Insecticide  
EPA Registration No. 241-257 ✓  
Labeling Submitted September 30, 1991

The labeling referred to above, submitted in connection with registration under the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA), as amended, is acceptable provided that you:

1. Make the labeling change listed below before you release the product for shipment bearing the revised labeling:
  - Under the "Bulk Handling Instructions," page 17, include instructions for placement of the transfer tube between planter fillings. Also, clarify the disposition of the discharge end closure once the insecticide hopper is filled, the auger is shut down and the tube is disconnected from the insecticide hopper (Item 9 on page 17).
2. Submit five (5) copies of your final printed labeling before you release the product for shipment.

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If these conditions are not complied with, the registration will be subject to cancellation in accordance with FIFRA section 6(e). Your release for shipment of the product constitutes acceptance of these conditions.

A stamped copy of the label is enclosed for your records.

Sincerely yours,

Robert A. Forrest  
Product Manager (14)  
Insecticide-Rodenticide Branch  
Registration Division (H7505C)

)  
Enclosure

Jaeger

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**RESTRICTED USE CLASSIFICATION**

Due to acute oral and dermal 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.

American Cyanamid Company endorses Certification to promote the responsible use of pesticides to insure the protection of man and the environment.

**THIMET® 20-G soil and systemic insecticide**

Active Ingredient: Phorate: 0,0-diethyl S [(ethylthio) methyl] phosphorodithioate.....	20.0%
Inert Ingredients.....	80.0%
Total.....	100.0%

EPA Reg. No. 241-257

EPA Est. No.

**KEEP OUT OF REACH OF CHILDREN**



**DANGER/PELIGRO!**



**POISON**

**PRECAUCION AL USUARIO:** Si usted no lee ingles, no use este producto hasta que la etiqueta le haya sido explicada ampliamente.

**FIRST AID**

If swallowed, drink one or two glasses of water and induce vomiting by touching back of throat with finger. Do not induce vomiting or give anything by mouth to an unconscious person. Avoid alcohol. Get medical attention.

If inhaled, remove to fresh air. If not breathing, give artificial respiration, preferably mouth-to-mouth. If breathing is difficult, give oxygen. Get medical attention.

If on skin, wash thoroughly with soap and water. Remove contaminated clothing and shoes. Wash clothing and decontaminate shoes before reuse.

If in eyes, immediately flush eyes with plenty of water. Get medical attention.

Antidote: Atropine is an antidote.

**IN CASE OF AN EMERGENCY ENDANGERING LIFE OR PROPERTY INVOLVING THIS PRODUCT, CALL COLLECT, DAY OR NIGHT, AREA CODE 201-835-3100.**

**See Next Page For Additional Precautionary Statements**

**ACCEPTED  
with COMMENTS  
in EPA Letter Dated**

**NOV 21 1991**

Under the Federal Insecticide, Fungicide, and Rodenticide Act as amended, for the pesticide registered under EPA Reg. No. 241-257

NOTE TO PHYSICIANS: Warning symptoms include weakness, headache, tightness in chest, blurred vision, nonreactive pinpoint pupils, salivation, nausea, vomiting, diarrhea, and abdominal cramps. Give atropine intramuscularly or intravenously, depending on severity of poisoning, 2 to 4 milligrams every 10 minutes until fully atropinized as shown by dilated pupils, dry flushed skin and tachycardia. Twenty to thirty milligrams, or more, may be required during the first 24 hours. Never give opiates or phenothiazine tranquilizers. Clear chest by postural drainage. Artificial respiration or oxygen administration may be necessary. Observe patient continuously for at least 48 hours. Allow no further exposure to any cholinesterase inhibitor until cholinesterase regeneration has taken place as determined by blood tests.

Pralidoxime chloride (2-PAM; PROTOPAM chloride) may be effective as an adjunct to atropine.  
Use according to label directions.

SOLD BY  
American Cyanamid Company  
Agricultural Division  
Crop Protection Chemicals Department  
Wayne, NJ 07470 ©1991

Net Weight: 1500 lbs.  
681 kg.

®Registered Trademark of American Cyanamid Company

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**PRECAUTIONARY STATEMENTS  
HAZARDS TO HUMANS AND DOMESTIC ANIMALS  
DANGER!**

Fatal if swallowed, inhaled or absorbed through the skin. Do not breathe dust. Do not get in eyes, on skin, or on clothing.

**Do Not Breathe Dust**

Wear a face mask or other respiratory equipment and fill downwind while emptying container into equipment. Do not allow dust to reach the breathing zone.

**Do Not Contaminate Food or Feed Products**

When container is not in use, make sure the discharge ends of the transfer tube and container are capped or plugged (caps and plugs are provided). Make sure the hoppers are emptied while still in the field. Refer to STORAGE AND DISPOSAL statement for further instructions.

**Keep all unprotected persons out of operating areas.**

Do not apply this product in such a manner as to directly or through drift expose workers or other persons.

**Keep Out of Reach of Domestic Animals.**

**Not for Use or Storage in or Around the Home.**

**REENTRY**

After dusts have settled, do not enter or allow entry into the treated area until the 48 hour reentry interval has expired, unless the person entering the treated area is wearing the personal protective equipment listed below for early reentry.

For early reentry into treated areas wear a protective suit of one or two pieces covering all parts of the body except head, hands, and feet; chemical-resistant gloves and chemical resistant shoes, coverings, boots.

Because certain states may require more restrictive reentry intervals for various crops treated with this product, consult your State Department of Agriculture for further information.

Written or oral warnings must be given to workers who are expected to be in a treated area or in an area about to be treated with this product. When oral warnings are given, warnings shall be given in a language customarily understood by workers. Oral warnings must be given if there is reason to believe that written warnings cannot be understood by workers. Written warnings must include the following information: DANGER. Area treated with THIMET 20-G on (date of application). Do not enter without protective clothing.

PERSONAL PROTECTIVE EQUIPMENT

WEAR THE FOLLOWING PROTECTIVE CLOTHING DURING LOADING, APPLICATION, EQUIPMENT REPAIR/CLEANING, AND DISPOSAL OF THE PESTICIDE. A protective suit of one or two pieces covering all parts of the body except head, hands, and feet; chemical resistant gloves; chemical resistant shoes, shoe covering, or boots.

Unless a chemical resistant protective suit is otherwise required, mixers/loaders must wear a chemical resistant apron and goggles or a face shield.

IF APPLICATION IS PERFORMED USING AN ENCLOSED CAB OR COCKPIT, THE FOLLOWING PROTECTIVE CLOTHING AND EQUIPMENT MAY BE WORN AS AN ALTERNATE: Long-sleeved shirt and long-legged pants; shoes and socks. Chemical resistant gloves must be available in the cab or cockpit and must be worn when exiting. This clothing is inadequate to protect you during equipment repair or cleaning, reentry, or pesticide disposal work. Do not allow contaminated clothing to come in contact with the insides of the cab.

IMPORTANT! If pesticide comes in contact with skin, wash off with soap and water. Always wash hands, face, and arms with soap and water before smoking, eating, drinking, or using the toilet.

AFTER WORK: Before removing gloves, wash them with soap and water. Take off all work clothes and shoes. Shower using soap and water. Wear clean clothes. Do not reuse contaminated clothing. Personal clothing worn during work must be laundered separately from household articles. Store protective clothing separately from personal clothing. Clean or launder protective clothing after each use. Clothing and protection equipment heavily contaminated must be destroyed according to state and local regulations. HEAVILY CONTAMINATED CLOTHING CANNOT BE ADEQUATELY DECONTAMINATED.

WORK SAFETY RULE

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 exposures 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 Telecommunication Network is 1-800-858-7378.

If handled indoors provide mechanical exhaust ventilation.

Keep all unprotected persons, children, livestock, and pets away from treated areas or where there is danger of drift.

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 section.

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CALL A PHYSICIAN AT ONCE IN ALL CASES OF SUSPECTED POISONING.

**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 or 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. This label must be in the possession of the user at the time of pesticide application.

**Bulk Handling**

See BULK HANDLING INSTRUCTIONS section on the container for details.

**STORAGE AND DISPOSAL**

**Storage**

Store pesticide products in a secure locked area where children, unauthorized persons and animals cannot enter. Do not store in the same area with food or feed.

**Prohibitions**

Do not contaminate water, food or feed by storage or disposal. Open dumping is prohibited. Cover or incorporate spills.

**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**

Return transfer tube with empty bulk container to the point of purchase. DO NOT DISCONNECT TRANSFER TUBE FROM CONTAINER UNTIL CONTAINER IS EMPTY AND THE TRANSFER TUBE HAS BEEN CLEANED (See Clean-out procedure under the BULK HANDLING INSTRUCTIONS section for details). If disconnecting the transfer tube BE SURE TO PLUG THE DISCHARGE END OF THE CONTAINER WITH THE PLUG PROVIDED AND CAP THE FEED END OF THE TRANSFER TUBE.

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DISCLAIMER

The label instructions for the use of this product reflect the opinion of experts based on research and field use. The directions are believed to be reliable and should be followed carefully. However, it is impossible to eliminate all risks inherently associated with use of this product. Crop injury, ineffectiveness or other unintended consequences may result because of such factors as weather conditions, presence of other materials, or the use of, or application of the product contrary to label instructions, all of which are beyond the control of American Cyanamid Company. All such risks shall be assumed by the user.

American Cyanamid Company shall not be responsible for losses or damages resulting from use of this product in any manner not set forth on this label. User assumes all risks associated with the use of this product in any manner not specifically set forth on this label.

American Cyanamid Company warrants only that the material contained herein conforms to the chemical description on the label and is reasonably fit for the use therein described when used in accordance with the directions for use, subject to the risk referred to above. CYANAMID DOES NOT MAKE OR AUTHORIZE ANY AGENT OR REPRESENTATIVE TO MAKE ANY OTHER WARRANTIES, EXPRESS OR IMPLIED AND EXPRESSLY EXCLUDES AND DISCLAIMS ALL IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE.

BUYER'S EXCLUSIVE REMEDY AND AMERICAN CYANAMID'S EXCLUSIVE LIABILITY, WHETHER IN CONTRACT, TORT, NEGLIGENCE, STRICT LIABILITY OR OTHERWISE, SHALL BE LIMITED TO REPAYMENT OF THE PURCHASE PRICE OF THIMET 20-G. In no case shall Cyanamid or the seller be liable for consequential, special or indirect damages resulting from the use or handling of this product.

BEFORE USING, READ PRECAUTIONARY STATEMENTS.

THIMET 20-G should be applied with a granular pesticide applicator properly calibrated to assure accurate placement and proper dosage. Cover granules that may be exposed on the ends of the treated rows and turns and loading areas by deep discing immediately after treating fields.

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**CROPS**

Crop	Pests Controlled	Rate of THIMET 20-G	Application	Remarks
BEANS At Planting	Mexican bean beetles	4.9-9.4 ozs. per 1,000 ft. of row for any row (minimum 30-inch spacing)	Drill granules to the side of the seed.	Do not place THIMET 20-G granules in direct contact with seed.  Do not graze or feed treated hay or forage to livestock.  Do not apply later than 60 days before harvest.
	Leafhoppers Aphids Lygus bugs Thrips Mites Seedcorn maggots	4.5-7.0 ozs. per 1,000 ft. of row for any row (minimum 30-inch spacing)		
	Seedcorn maggots		Apply granules in a band over the row	

<p><b>FIELD CORN AND SWEET CORN (excluding popcorn)</b></p> <p><b>At Planting</b></p>	<p>Corn rootworms Wireworms White grubs Seedcorn maggots Seedcorn beetles Flea beetles Mites</p>	<p>6 ozs. per 1,000 ft. of row for any row spacing (minimum 30-inch row spacing)</p>	<p>Place granules in a 7-inch band over the row directly behind the planter shoe in front of or behind the press wheel and lightly incorporate.</p>	<p>Do not use in- furnow application. One additional application can be applied at cultivation.</p> <p>For field corn: Accent* herbicide and Beacon** herbicide may be applied after BANDED applications of THIMET 20-G.</p> <p>Applications of Accent herbicide or Beacon herbicide following applications of THIMET 20-G may result in temporary crop injury.</p>
<p><b>FIELD CORN AND SWEET CORN (excluding popcorn)</b></p> <p><b>At Cultivation</b></p>	<p>Corn rootworms</p>	<p>Apply granules to base of plants just ahead of cultivation shovels so as to cover granules with soil.</p>	<p>Do not make any applications of THIMET 20-G after cultivation treatment.</p> <p>Do not harvest within 30 days of last treatment.</p>	

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**FIELD CORN  
(excluding  
sweet and  
popcorn)**

**At  
Cultivation**

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**Chinch bug  
nymphs  
(Colorado,  
Kansas, and  
Nebraska)**

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**Apply granules  
to base of  
plants just  
ahead of  
cultivation  
shovels 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.**

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**Later  
infestations of  
chinch bugs may  
not be  
controlled.**

**Do not make any  
applications of  
THIMET 20-G  
after  
cultivation  
treatment.**

**Do not harvest  
within 30 days  
of last  
treatment.**

**Do not graze or  
cut for forage  
within 30 days  
of last  
treatment.**

**Do not apply  
more than 2  
applications  
per season.**

COTTON At Planting	Early season control of: Thrips Mites Leafminers	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 temperature moisture and tilth should be favorable for good germination and emergence.	Suggested for areas where a limited period of protection against early season pests is necessary for good cotton growth. Use 1.5 lbs. THIMET 20-G per acre for hill-dropped cotton. Do not feed treated hay or forage to livestock.
	Mites Thrips Aphids Black cutworms Leafhoppers Whiteflies Leafminers	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 and extended period of mite control as well as early season protection against other cotton pests. The higher rate is suggested for heavier soils. Do not feed treated hay or forage to livestock.
COTTON Side-Dressing (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 the 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. Do not feed treated hay or forage to livestock.  Do not apply more than 2 applications per season

<p>PEANUTS At Planting</p>	<p>Thrips Leafhoppers</p>	<p>5.5 ozs. per 1,000 ft. of row for any row spacing (minimum 24-inch spacing)</p>	<p>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.</p>	<p>Do not graze or feed treated hay or forage to livestock.  Wait 90 days after treatment before harvesting peanuts.</p>
<p>PEANUTS At Pegging</p>	<p>Southern corn rootworms and Leafhoppers</p>	<p>11.0 ozs. per 1,000 ft. of row for any row spacing (minimum 24-inch spacing) or no more than 15 lb/A</p>	<p>Distribute the granules as a band over the fruiting zone at pegging time. Work into the top few inches of soil immediately.</p>	<p>Do not graze or feed treated hay or forage to livestock.  Wait 90 days after treatment before harvesting peanuts.  Do not apply more than 2 applications per season.</p>
<p>POTATOES At Planting</p>	<p>Aphids Leafhoppers Leafminers Psyllids Wireworms Flea beetle larvae and reduction of flea beetle adults.</p>	<p>Light or Sandy Soils 11.3 ozs. per 1,000 ft. of row for any spacing (minimum 32-inch spacing)  Heavy or Clay Soils: 17.3 ozs. per 1,000 ft. of row for any row spacing (minimum 32-inch spacing)</p>	<p>Distribute the granules evenly in the furrow or band on each side of the row.</p>	<p>Wait 90 days after treatment before harvesting potatoes.  Do not use for Colorado potato beetle control in the Long Island area of New York and the Del Marva Peninsula.</p>

**SORGHUM**  
At Planting

Greenbugs

6.0 ozs. per 1,000  
ft. of row for any  
row spacing  
(minimum 30-inch  
spacing) or no  
more than 6.5 lb/A

Place granules  
in a 7-inch  
band over the  
row OR drill 1  
inch below and  
2 inches to the  
side of the  
seed.

Do not place  
THIMET 20-G  
granules in  
direct contact  
with seed. A  
second  
application of  
granules may be  
applied at  
cultivation.

**SORGHUM**  
At  
Cultivation

Chinch bug  
nymphs  
(Colorado,  
Kansas,  
Nebraska)

Apply granules  
to base of  
plants just  
ahead of  
cultivation  
shovels 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  
adquately  
covered with  
soil.

Later  
infestation of  
chinch bugs may  
not be  
controlled.

Do not make any  
application of  
THIMET 20-G  
after  
cultivation  
treatment.

Do not feed  
foliage before  
grain harvest.

Do not apply  
within 30 days  
of harvest.

Do not apply  
more than 2  
applications  
per season.

<p><b>SOYBEANS</b></p>	<p>For the early season control of:          Mexican bean beetles          Leafhoppers          Lygus bugs          Seedcorn maggots          Thrips          Aphids          Mites</p>	<p>9.0 ozs. per 1,000 ft. of row for any row spacing (minimum 30-inch row spacing)</p>	<p>Drill granules to the side of the seed.</p>	<p>Do not place THIMET 20-G granules in direct contact with seed. Do not feed the foliage of treated soybeans. Crop injury may result when preplant incorporated or preemergence applications of metribuzin herbicides are used in conjunction with this product or other soil-applied organo-phosphate pesticides.</p>
	<p>Seedcorn maggots</p>		<p>Place granules in a 7-inch band over the row directly behind the planter shoe and in front of the press wheel.</p>	
<p><b>SUGAR BEETS</b></p>	<p>Aphids          Beet root maggots          Leafhoppers          Mites          Leafminers</p>	<p>4.5 ozs. per 1,000 ft. of row for any row spacing (minimum 20-inch spacing)</p>	<p>Drill granules to the side of the seed OR place granules in a band over the row.</p>	<p>Do not place THIMET 20-G granules in direct contact with the seed.</p> <p>Do not apply within 30 days of harvest.</p> <p>Do not feed sugar beet tops or silage to dairy cattle.</p> <p>Consult your state experiment station or state extension service for proper timing of application in your area.</p>

<p><b>SUGAR BEETS</b>  Post-emergence</p>	<p>Mites Aphids</p>	<p>4.9-7.5 lbs. per acre</p>	<p>Apply to foliage when plants are dry. Use the higher rate on dense foliage for good coverage.</p>	<p>Do not broadcast.  Do not apply by air. Apply with ground equipment only.  Do not apply more than 2 applications per season.</p>
<p><b>SUGAR CANE (Florida)</b></p>	<p>Wireworms</p>	<p>19.5 lbs. per acre</p>	<p>Apply in a 10-12 inch band directly on the seed piece and surrounding soil in the open furrow immediately before covering</p>	<p>Do not graze or feed treated hay or forage to livestock.</p>
<p><b>WHEAT</b>  At Planting</p>	<p>Grasshoppers<sup>1</sup> Aphids (Western and North Central States only) Hessian fly</p>	<p>1.2 ozs. per 1,000 ft. of row for any row spacing (minimum 8-inch spacing)</p>	<p>Apply the granules in the seed furrow.</p>	<p>Do not feed or graze foliage within 70 days of treatment. Do not make any later applications after planting time treatment.  <sup>1</sup>Grasshoppers controlled in winter wheat only.  Do not harvest within 70 days of application.</p>

\*Accent is a registered trademark of E.I. duPont deNemours and Company

\*\*Beacon is a registered trademark of Ciba Geigy Corporation.

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USE RATES AS POUNDS PER ACRES  
(based on various row spacings and application rates)

Rate Oz./1,000 Ft. of Row

	<u>1.2 oz</u>	<u>3 oz</u>	<u>4.5 oz</u>	<u>6 oz</u>	<u>8 oz</u>	<u>10 oz</u>	<u>12 oz</u>	<u>14 oz</u>	<u>16 oz</u>	<u>18 oz</u>
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								

CALIBRATION INFORMATION

FIRST READ THE LABEL

It is important that applicator equipment be properly set to deliver the labeled rate. The table below contains suggested starting gauge 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.

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

SUGGESTED GRANULAR APPLICATOR SETTING<sup>1</sup>

Applicator	Planter Speed 5 mph			Planter Speed 7 mph		
	4.5 oz.	6.0 oz.	9.0 oz.	4.5 oz.	6.0 oz.	9.0 oz.
John Deere MaxEmerge 2	14	17	23	17	21	33
John Deere Ma .-Emerge (Odd Notches 5-15-25-35)	9	11	14	11	13	17
John Deere Max-Emerge (Even Notches 0-10-20-30)	9	13	20	13	19	26
John Deere 71 Flexi-Planter (John Deere Metal Hoppers)	1/23	1/26	2/3	1/26	1/32	2/14
New International Harvester (2 gauges hopper)	1/9	2/2	2/6	2/2	2/5	3/3
Old International Harvester (1 gauge hopper)	1/6	1/8	2/3	1/9	2/2	2/9
New Gandy	15	18	22	18	21	25
New Noble	6	6	11	8	11	14
Old Noble	8	11	16	12	15	22
Allis Chalmers (78 and 79 Series)	4	5	7	4	5	7
Allis Chalmers #385	10	11	14	11	13	18

<sup>1</sup>Suggested starting point only.

**BULK HANDLING INSTRUCTIONS**

**Start-up Procedure**

1. Position the truck carrying the mini bulk container perpendicular to the insecticide hoppers on the planter. The clearance between the truck and hoppers should be 3-4 feet.
2. Connect drive motor to motor mount located in the rear of the mini bulk tank. This is accomplished by inserting the motor pivot rods into the motor mount and matching mating couplings between the motor and container.
3. Connect transfer tube to mini bulk container. Be sure the tube is locked into position.
4. Connect the electrical control wires (pin socket connector) from the motor to the transfer tube.
5. **WARNING: BE SURE TO OBSERVE ALL SAFETY PRECAUTIONS AND USE PROPER SAFETY EQUIPMENT WHEN CONNECTING BATTERY CABLES. KEEP SPARKS, FLAMES, AND CIGARETTES AWAY FROM BATTERY. WEAR EYE PROTECTION. DO NOT LEAN OVER BATTERY WHILE DRIVE MOTOR IS IN OPERATION. BE SURE VENT CAPS ARE TIGHT AND LEVEL. FOR GREATER SAFETY, PLACE DAMP CLOTH OVER VENT CAPS. THE MINI BULK HAS A 12 VOLT SYSTEM. USE A 12 VOLT BATTERY ONLY.**

Connect power cables from drive motor to the proper battery terminals in the following order:

- a. Clamp the red cable to the positive (+) terminal
  - b. The black cable to the negative (-) terminal
  - c. Stand back from battery
  - d. Start vehicle containing the battery being used and keep it running while operating the drive motor on the mini bulk
  - e. Remove cables in reverse order
6. Connect discharge end of the transfer tube to the insecticide hopper. Be sure tube is locked into position.
  7. Pull handle out to open slide gate on mini bulk container and open the valve on the discharge end of the transfer tube (auger system will not operate with this valve closed).
  8. To operate the auger system, press the green start button; to stop press the red button. These buttons are located on the discharge end of the transfer tube.
  9. The auger will shut down automatically once the insecticide hopper is filled.
  10. Before filling the next hopper, close the valve on the discharge end of transfer tube.

**CAUTION: IN CASE OF SYSTEM FAILURE, DO NOT ATTEMPT REPAIR. CALL YOUR LOCAL AGRICENTER FOR HELP. IF FILLED WITH PRODUCT, DO NOT DISCONNECT TRANSFER TUBE FROM MINI BULK CONTAINER.**

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### Clean-out Procedure

1. Close slide gate on the mini bulk container. Be sure the transfer tube is connected to the mini bulk container and the insecticide hopper.
2. Run the auger for approximately 20 seconds. While continuing to run, lift the transfer tube above and below the center line of the discharge end in a continuous wave like motion for an additional 60 seconds. This will facilitate emptying the remaining product in the transfer tube.
3. Disconnect the transfer tube from the mini bulk container. Immediately plug this end of the transfer tube with plug provided, and lock it into position.
4. Cap and lock discharge end of auger on the mini bulk container.
5. While the transfer tube is connected to the insecticide hopper, lift the plugged feed end of transfer tube above the discharge end and shake for 15-20 seconds. While shaking, walk any remaining product down to the discharge end and into the insecticide hopper.
6. Disconnect the transfer tube from the insecticide hopper.

### Transporting

When transporting the mini bulk system, be sure it is properly secured.