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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

27 FEB 1990

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American Cyanamid Company
Agricultural Research Division
P.O. Box 400
Princeton, NJ 08540

Subject: Thimet 20G Soil and Systemic Insecticide
EPA Reg. No. 241-257
Labeling Submitted December 14, 1989

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 changes listed below before you release the product for shipment bearing the revised labeling:
 - o Delete the second and third paragraph under the Precautionary Statements heading regarding the use and care of protective clothing. The existing statements are either redundant or are in conflict with the required statements appearing elsewhere on your label under the headings, "Personal Protective Equipment" and "Work Safety Rules".
 - o The skull and crossbones must appear on the front panel in immediate proximity to the word POISON.
2. Submit five (5) copies of your final printed labeling before you release the product for shipment.

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CONCURRENCES

SYMBOL							
SURNAME							
DATE							

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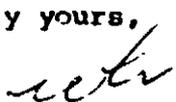
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If these conditions are not complied with, the registration will be subject to cancellation in accordance with FIFRA section 6(e). Your release for shipment of the product constitutes acceptance of these conditions.

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

Sincerely yours,



William H. Miller
Product Manager (16)
Insecticide-Rodenticide Branch
Registration Division (H7505C)

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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: O,O-diethyl S-[(ethylthio) methyl] phosphorodithioate.....	20.0%
Inert Ingredients.....	<u>80.0%</u>
Total.....	100.0%

EPA Reg. No. 241-257

EPA Est. No.

KEEP OUT OF REACH OF CHILDREN

DANGER/PELIGRO!

POISON

PRECAUCION PARA 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.

See Next Page For Additional Precautionary Statements

ACCEPTED
WITH COMMENTS
in EPA Letter Dated:

FEB 27 1980

U.S. Environmental Protection Agency
Registration Division

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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.

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

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

SOLD BY
American Cyanamid Company
Agricultural Division
Crop Protection Chemicals Department
Wayne, NJ 07470 ©1989

Net Weight: 50 lbs.
22.68 kg.

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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.

Wear freshly laundered, long-sleeved work clothing daily. While transferring from package to equipment, wear a clean cap, gloves (rubber or cotton) and goggles. If cotton gloves are used, they must be laundered or discarded after each day's use. Rubber gloves should be washed with soap and water after each use. Do not wear the same gloves for other work. Destroy and replace gloves frequently.

In case of contact, immediately remove contaminated clothing and wash skin thoroughly with soap and water. Launder clothing and decontaminate shoes before reuse. Wash thoroughly with soap and water before eating or smoking. Bathe at the end of the work day and change clothing.

Do Not Breathe Dust

Wear a face mask or other respiratory equipment while emptying bags of product into a hopper. While emptying bags into equipment, pour downwind and allow as little free fall as possible. Do not pour at face level and do not allow dust to reach the breathing zone.

Do Not Contaminate Food or Feed Products

Once a bag has been opened, use it completely. 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.

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 wetlands (swamps, bogs, marshes, and pot-holes). 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.

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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, or boots.

Because certain states may require more restrictive re-entry 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 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.

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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 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 return 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 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.

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.

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. Do not store opened bags.

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

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.

General

Consult Federal, State or local disposal authorities for approved alternative procedures such as limited open burning.

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DISCLAIMER

The label instructions for the use of this product reflect the opinion of experts based on field use and tests. 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 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 warrants only that the material contained herein conforms to the chemical description on the label and is reasonably fit for the use therein when used in accordance with the directions for use, subject to the risk referred to above. Any damages arising from a breach of this warranty shall be limited to direct damages and shall not include consequential commercial damages such as loss of profits or values or any other special or indirect damages.

American Cyanamid Company makes no other express or implied warranty, including any other express or implied warranty of FITNESS or of MERCHANTABILITY.

BEFORE USING, READ PRECAUTIONARY STATEMENTS.

THIMET 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 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 spacing (minimum 30-inch spacing)		
	Seedcorn maggots		Apply granules in a band over the row	

<p>FIELD CORN AND SWEET CORN (excluding popcorn) At Planting</p>	<p>Corn rootworms Wireworms White grubs Seedcorn maggots Seedcorn beetles Flea beetles Mites</p>	<p>6 ozs. per 1,000 ft. or 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-furrow application. One additional application can be applied at cultivation later in the season.</p>
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<p>FIELD CORN AND SWEET CORN (excluding popcorn) At Cultivation</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>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 after cultivation treatment. Do not harvest within 30 days of last treatment.</p>
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<p>FIELD CORN (excluding sweet and popcorn) At Cultivation</p>	<p>Chinch bug nymphs (Colorado, Kansas, and Nebraska)</p>	<p>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.</p>	<p>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.</p>	<p>Later infestations of chinch bugs may not be controlled. Do not make any applications of THIMET 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.</p>
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COTTON At Planting	Early season control of: Thrips Mites Leaf miners	3.0 ozs. per 1,000 ft. or 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 White flies Leaf miners	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.

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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)</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 Leaf miners 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.</p>
	<p>Colorado potato beetle (early season control)</p>	<p>Heavy or Clay Soils: 17.3 ozs. per 1,000 ft. of row for any row spacing (minimum 32-inch spacing)</p>		<p>Do not use for Colorado potato beetle control in Long Island, New York and the Del Marva Peninsula.</p>

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SORGHUM At Planting	Greenbugs	6.0 ozs. per 1,000 ft. of row for any row spacing (minimum 30-inch spacing)	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 granules in direct contact with seed. A second application of granules may be applied at cultivation later in the season.
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 adequately covered with soil.	<p>Later infestation of chinch bugs may not be controlled.</p> <p>Do not make any application of THIMET after cultivation treatment.</p> <p>Do not feed foliage before grain harvest.</p> <p>Do not apply within 30 days of harvest.</p> <p>Do not apply more than 2 applications per season.</p>

SOYBEANS

At Planting

For the early season control of: Mexican bean beetles
Leafhoppers
Lygus bugs
Seedcorn maggots
Thrips
Aphids
Mites

Seedcorn maggots

9.0 ozs. per 1,000 ft. of row for any row spacing (minimum 30-inch row spacing)

Drill granules to the side of the seed.

Place granules in a 7-inch band over the row directly behind the planter shoe and in front of the press wheel.

Do not place THIMET 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 metribuzine herbicides are used in conjunction with this product or other soil-applied organo-phosphate pesticides.

SUGAR BEETS

Aphids
Beets root maggots
Leafhoppers
Mites
Leaf miners

4.5 ozs. per 1,000 ft. of row for any row spacing (minimum 20-inch spacing)

Drill granules to the side of the seed OR place granules in a band over the row.

Do not place THIMET 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 of application in your area.

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<p>SUGAR BEETS 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 apply by air. Do not apply more than 2 applications per season.</p>
<p>SUGAR CANE (Florida)</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>WHEAT At Planting</p>	<p>Grasshoppers¹ 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. ¹Grasshoppers controlled in winter wheat only. Do not harvest within 70 days of application.</p>

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TYPICAL APPLICATION RATES FOR VARIOUS ROW SPACES

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								

EQUIVALENT POUNDS PER ACRE

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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 SETTING¹

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 Max-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 gauge 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	8	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

¹Suggested starting point only.