



DREXEL SPROUT-STOP 60 SG

A plant growth regulator containing maleic hydrazide to control sprouting and shrinkage of Potatoes and Onions in Storage and to provide grass, tree, and shrub growth control.

SOLUBLE GRANULE

COMMERCIAL

GUARANTEE: Maleic hydrazide..... 60%
(present as potassium salt)

REGISTRATION NUMBER: 27654
PEST CONTROL PRODUCTS ACT

Net Contents: 11.3 KG

READ THE LABEL BEFORE USING

Distributed By:

COOPER MILL LTD.
R.R.3, Madoc, Ontario K0K 2K0
(Tel. No. 613 473-4847)

Manufactured By:

Drexel Chemical Company
P.O. Box 13327
Memphis, TN 38113-0327
U.S.A.

SPROUT-STOP is a registered trade mark of Drexel Chemical Company.

PRECAUTIONS

KEEP OUT OF REACH OF CHILDREN.

May cause eye irritation.

CAUTION: Do not graze the treated crops or cut for hay; sufficient data are not available to support such use.

Wear a long-sleeved shirt, long pants, shoes and socks during mixing, loading, application, cleanup and repair for all methods of application. In addition, wear chemical-resistant gloves during mixing/loading and when applying by hand-held equipment.

Wear a dust mask during mixing/loading activities.

If this pest control product is to be used on a commodity that may be exported to the U.S. and you require information on acceptable residue levels in the U.S., visit Croplife Canada's website at www.croplife.ca.

FIRST AID

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

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

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

Take container, label or product name and Pest Control Product Registration Number with you when seeking medical attention.

TOXICOLOGICAL INFORMATION:

Treat symptomatically.

ENVIRONMENTAL HAZARDS

TOXIC to non-target terrestrial plants. Observe buffer zones specified under **DIRECTIONS FOR USE**.

Do not contaminate irrigation or drinking water supplies or aquatic habitats by cleaning of equipment or disposing of wastes.

To reduce runoff from treated areas into aquatic habitats, consider the characteristics and conditions of the site before treatment. Site characteristics and conditions that may lead to runoff include, but are not limited to, heavy rainfall, moderate to steep slope, bare soil, poorly draining soil (e.g., soils that are compacted or fine textured such as clay).

Avoid application of this product when heavy rain is forecast.

Contamination of aquatic areas as a result of runoff may be reduced by including a vegetative strip between the treated area and the edge of the water body.

DIRECTIONS FOR USE

DO NOT enter or allow worker entry into treated areas for 12 hours following application.

Field sprayer application: DO NOT apply during periods of dead calm. Avoid application of this product when winds are gusty. DO NOT apply with spray droplets smaller than the American Society of Agricultural Engineers (ASAE) medium classification. Boom height must be 60 cm or less above the crop or ground.

Airblast application: DO NOT apply during periods of dead calm. Avoid application of this product when winds are gusty. DO NOT direct spray above plants to be treated. Turn off outward pointing nozzles at row ends and outer rows. DO NOT apply when wind speed is greater than 16 km/h at the application site as measured outside of the treatment area on the upwind side.

Aerial application: DO NOT apply during periods of dead calm. Avoid application of this product when winds are gusty. DO NOT apply when wind speed is greater than 16 km/h at flying height at the site of application. DO NOT apply with spray droplets smaller than the American Society of Agricultural Engineers (ASAE) medium classification. To reduce drift caused by turbulent wingtip vortices, the nozzle distribution along the spray boom length MUST NOT exceed 65% of the wingspan or rotorspan.

Buffer Zones:

Use of the following spray methods or equipment DO NOT require a buffer zone: hand-held or backpack sprayer and spot treatment.

The buffer zones specified in the table below are required between the point of direct application and the closest downwind edge of sensitive terrestrial habitats (such as grasslands, forested areas, shelterbelts, woodlots, hedgerows, riparian areas and shrublands).

Method of Application	Crop		Buffer Zones (metres) Required for the Protection of:
			Terrestrial Habitat
Field Sprayer	Potato, onion (sprout inhibition)		1
	Tree/shrub, non-crop grass (growth control)		
Airblast	Tree/shrub (early season)		10
Aerial	Onion	Fixed or rotary wing	15
	Potato	Fixed or rotary wing	20

For tank mixes, consult the labels of the tank-mix partners and observe the largest (most restrictive) buffer zone of the products involved in the tank mixture and apply using the coarsest spray (ASAE) category indicated on the labels for those tank mix partners.

MIXING INSTRUCTIONS:

1. Be sure the sprayer is clean and not contaminated with any material.
2. Fill tank 3/4 full with clean water and start agitation.
3. Pour this product slowly from bag into tank. Avoid dumping all contents at once.
4. Allow 2 to 3 minutes agitation for dissolving.
5. Add registered tank mix product if required.
6. Complete filling tank.

Note: This product already contains surfactant, hence, the addition of further wetting agents or commercial spray adjuvants is not recommended.

GENERAL INFORMATION

Sprout-Stop 60 SG is a plant growth regulator containing the active ingredient maleic hydrazide. When applied to healthy growing plants, maleic hydrazide, is absorbed rapidly by the plant from its leaf surface when the cells are turgid and under high humidity conditions. It is translocated in the plant and inhibits cell division but not cell expansion. It is through this action that this product effectively controls sprout development in potatoes and onions under proper conditions and limit the growth of grasses, trees and shrubs, when applied according to label directions.

READ THE LABEL CAREFULLY BEFORE USING THIS PRODUCT. TAKE PARTICULAR NOTE OF THE SECTIONS ENTITLED **USE PRECAUTIONS** AND **USE RESTRICTIONS**.

POTATOES

BENEFITS OF USE ON POTATOES:

1. **Control of Sprouting:** This product will control sprouting of Potatoes in storage when applied as instructed. It will not make “poor-keeping” Potato varieties (such as Norgold or Norchip) into a “good-keeping” Potato.

2. Volunteer Reduction: This product can reduce the number of volunteer Potatoes in the following Spring by reducing the number of late season sets left in the field.

3. Improvement of Grade: This product may improve the grade of Potatoes (especially Russet Burbank variety) if the application is made prior to any secondary tuber formation.

4. Reduction of Undersized Potatoes: This product will help reduce any additional sets of Potatoes, thereby decreasing the number of undersized Potatoes in the field at harvest time.

5. Shrinkage Reduction: Application of this product at labeled rates can reduce shrinkage of potatoes in storage up to 15%.

APPLICATION METHOD AND RATES:

1. Ground Application: Apply this product at the rate of 5.65 kg in a minimum of 300 litres of water per hectare. One 11.3 kg package of this product will treat 2 hectares.

2. Aerial Application: Apply this product at the rate of 5.65 kg in a minimum of 100 litres of water per hectare using aerial equipment. One 11.3 kg package of this product will treat 2 hectares.

When to Apply:

1. Timeliness of application is important. Check the field to see if there is a good set of Potatoes.

2. Apply this product to Potatoes between two and three weeks past full bloom and two weeks before expected date of topkill or first frost.

3. This product is applied when most of the tubers set are approximately 4 - 5 cm in diameter if they are to reach a minimum size of 110 to 170 grams at harvest. This occurs when the few lower leaves show a yellow colour.

4. If conditions are such that secondary tuber sets are common, application may be delayed until the smaller tubers have all sized.

Note: Application should not be delayed too long so that the time between application of this product and the use of vine killer or occurrence of frost is less than two weeks.

USE PRECAUTIONS:

1. Do not apply this product to potatoes to be used for seed purpose.
2. Uneven or excessive applications may result in “elephant hide” and/or bud end cracking of Potato tubers.
3. Do not apply too early. Applications made prior to sizing of tubers can reduce yield and result in plant injury.
4. Do not apply this product after the upper leaves have turned from dark green to light green or yellow as this would give unsatisfactory sprout control as a result of insufficient material being absorbed and translocated from the leaves to the potato tubers.
5. The use of this product must be combined with good field and storage management practices. Less than optimal conditions either in the field or during storage can contribute to earlier than desired sprouting of tubers.

Refer to the section on **USE RESTRICTIONS** for further use precautions.

ONIONS

The use of this product in Onions must be combined with good field and storage management practices for better results.

Apply this product to “good-keeping” varieties of Onions. This product will not make “poor-keeping” varieties equal to “good-keeping” varieties.

APPLICATION METHODS AND RATES:

1. **Ground Application:** Apply this product at the rate of 3.75 kg in a minimum of 300 litres of water per hectare. One 11.3 kg package of this product will treat 3 hectares.
2. **Aerial Application:** Apply this product at the rate of 3.75 kg in a minimum of 100 litres of water per hectare using aerial equipment. One 11.3 kg package of this product will treat 3 hectares.

When to Apply:

This product should be applied when the onion bulbs are fully mature, have at least 5 to 8 green leaves and necks soft for the tops to fall if they have not already done so. This product is often applied when 50% of the tops have fallen but all tops are still green. This condition usually occurs about 10 days to two weeks before harvest. Green tops are essential for the absorption of this product.

USE PRECAUTIONS:

1. Carefully follow dosage recommendations and spray field uniformly.
2. Avoid spraying onions too early. Spongy hollow necked bulbs might result if spraying is done earlier than two weeks before maturity.
3. Apply to healthy plants. If tops fall irregularly due to insect or disease damage, spraying of this product may give unsatisfactory results.
4. Do not apply to fields badly infested with weeds, insects or disease as absorption and translocation may not occur, thus, may give less than optimal results.

Refer to the section on **USE RESTRICTIONS** for further use precautions.

GRASS GROWTH CONTROL

This product applied to green grass can inhibit seed development and slow down growth of grasses. It reduces mechanical mowing of turf in hard to mow areas along highways, airport property, industrial areas golf course roughs and similar areas.

Do not use on turf areas where appearance is important. Use of this product is limited to one application per year, either in the Fall or Spring followed by maintenance procedures to maintain control of grass growth if grass height must be kept under 15 cm.

SPRING APPLICATION:

Apply this product when grass has first grown about 5 to 10 cm. If time or weather does not permit early application and grass is 15 cm or higher, it should be applied and the area mowed about 7 days later. This will prevent “stretching” of the seed head in the treated area. DO NOT mow grass to a height less than 7.5 cm as scalped appearance of the retarded grass may occur.

FALL APPLICATION:

This product should be applied while grass is still green before it becomes dormant, usually during October. Fall application will reduce grass growth and will also control Wild onion, Garlic and Biennial weeds such as Dandelion and Plantain in the following Spring. Since grass growth is inhibited the following Spring, the sprayed area will “green-up” about two weeks later than the untreated turf.

RATE OF APPLICATION:

Apply this product at the rate of 6.5 to 8.0 kg in 400 litres of water per hectare. Use the higher rate in Fall treatments and in very rough and hard to mow areas in the Spring.

USE OF 2,4-D:

This product should be used with 2,4-D in most Spring applications. A low volatile ester or amine salt formulation is compatible with this product. Read **MIXING INSTRUCTIONS** and follow dosage and precautionary information on the 2,4-D label. A separate later application of 2,4-D is recommended for weeds that are yet to emerge at the time of application of this product.

USE PRECAUTIONS:

1. Do not use on home lawns except along edges.
2. Do not apply on pastures or pasture livestock in, or cut hay from treated areas.
3. Apply only to green, healthy, vigorous grass free of disease and insect damage.
4. Do not use if turf is wilted or during periods of extended drought due to poor absorption giving unsatisfactory results.

5. Apply this product only in turf areas with well established perennial grasses at least three years old.
6. Do not apply during the summer months.
7. For best results, apply on relatively calm days (wind velocity under 15 km/h) with equipment that will uniformly apply this product.
8. Turf to be treated must be free of leaf cover, clippings or other debris that will prevent direct contact of the spray with the grass.
9. At label recommended rates, this product should not normally affect the colour of the grass. However, color modification for a period of several weeks may be encountered under certain conditions of optimal absorption. Treated grass may appear greener than the untreated at times.

TREE AND SHRUB CONTROL

This product can be used to suppress excessive vegetative growth and reduce the need to mechanically prune or shear tree and/or shrubs.

This product can be used on the following tree species: Black walnut, Elm, Maple, Mulberry, Oak, Poplar, Sweet gum, Sycamore, Tamarack and Willow alder.

This product can be used on the following shrubs: Cissus, Eugenia, Forsythia, Ivy (Algerian, Hahns), Honeysuckle, Ice plant, Myrtus, Pittosporium, Privet, Pyracantha, Viburnum and Xylosmas.

RATE OF APPLICATION:

Apply this product to wet all surfaces of bark and leaves to the point of drip (not run-off) at the rate of 9.25 kg in 1000 litres of water. Direct spray pattern towards area where growth inhibition is desired. For example, apply to the upper half of the tree if the top terminal growth is to be inhibited and growth will continue in the unsprayed sections.

When to Apply:

This product should only be used once a year either in the Spring or early Summer. Spring treatment should be applied to green, vigorous, new growth.

New leaves should be fully expanded. For a summer application, plants should first be pruned to the desired shape. At least 5 to 10 cm of re-growth should occur before treatment is applied to hide fresh cut ends of limbs and stems and prevent barren appearance of the treated plant.

USE PRECAUTIONS:

1. Do not spray trees or shrubs when wind velocity is more than 15 km per hour.
2. Control of tree and shrub growth is best when this product is applied to vigorous new growth.
3. It is essential that this product must be applied uniformly to the treated area to be effective.

Refer to the section on **USE RESTRICTIONS** for further use precautions.

USE RESTRICTIONS (For All Applications)

1. Do not apply to crops being grown for seed.
2. Rain or overhead irrigation occurring within 24 hours after application will reduce effectiveness of this product. Apply at least 24 hours before or after rain or applying overhead irrigation.
3. To obtain the desired results, target crop should not be stressed from either too much or too little water before or after application.
4. This product is not volatile, regardless, no drift should be permitted onto nearby crops. Do not spray when wind velocity exceeds 15 km per hour.
5. Do not apply this product if temperature is expected to exceed 30°C. High temperatures and humidity conditions will crystallize this product on the leaf surface and will not be absorbed by the plant. Best results are obtained if this product is applied during the early morning hours or all day on cloudy days.
6. Spray equipment must be set up and calibrated to ensure delivery of even uniform spray pattern onto the target crop.

AERIAL APPLICATION LABEL INSTRUCTIONS

DIRECTIONS FOR USE:

Apply only by fixed-wing or rotary aircraft equipment which has been functionally and operationally calibrated for the atmospheric conditions of the area and the application rates and conditions of this label.

Label rates, conditions and precautions are product specific. Read and understand the entire label before opening this product. Apply only at the rate recommended for aerial application on this label. Where no rate for aerial application appears for the specific use, this product cannot be applied by any type of aerial equipment.

Ensure uniform application. To avoid streaked, uneven or overlapped application, use appropriate marking devices.

USE PRECAUTIONS:

Apply only when meteorological conditions at the treatment site allow for complete and even crop coverage.

Apply only under conditions of good practice specific to aerial application as outlined in the *National Aerial Pesticide Application Manual*, developed by the Federal/Provincial/Territorial Committee on Pest Management and Pesticides.

Do not apply to any body of water. Avoid drifting of spray onto any body of water or other non-target areas. Specified buffer zones should be observed.

Coarse sprays are less likely to drift, therefore, avoid combinations of pressure and nozzle type that will result in fine particles (mist). Do not apply during periods of dead calm or when wind velocity and direction pose a risk of spray drift. Do not spray when the wind is blowing towards a nearby sensitive crop, garden, terrestrial habitat (such as shelter-belt) or aquatic habitat.

OPERATOR PRECAUTIONS:

Do not allow the pilot to mix chemicals to be loaded onto the aircraft. Loading of premixed chemicals with a closed system is permitted.

It is desirable that the pilot has communication capabilities at each treatment site at the time of application.

The field crew and the mixer/loaders must wear chemical resistant gloves, coveralls and goggles or face shield during mixing/loading, cleanup and repair. Follow the more stringent label precautions in cases where the operator precautions exceed the generic label recommendations on the existing ground boom label.

All personnel on the job site must wash hands and face thoroughly before eating and drinking. Protective clothing, aircraft cockpit and vehicle cabs must be decontaminated regularly.

PRODUCT SPECIFIC PRECAUTIONS:

Read and understand the entire label before opening this product. If you have questions, call the manufacturer at (901) 774-4370 or obtain technical advice from the distributor or your provincial agricultural representative. Application of this specific product must meet and/or conform to the following:

Volume: Apply the recommended rate in a minimum spray volume of 100 litres per hectare.

- Exercise special care: Use sufficient water for even distribution.
- Use a boom pressure of 235 kPa or less. Avoid placing nozzles where spray will enter wing tip vortices.
- Do not apply this product directly to, or otherwise permit it to come into direct contact with desirable crops other desirable broadleaf plants or non-target species and do not permit spray mists to drift onto them.
- Do not use human flaggers.
- Buffer zones: Appropriate buffer zone should be established between treatment areas and aquatic systems, and treatment areas and significant wildlife habitat.
- Do not spray in winds exceeding 10 km per hour.
- Do not spray in dead calm near sensitive plants. A "cloud" of suspended droplets may drift onto sensitive plants when the wind comes up.

STORAGE AND DISPOSAL

STORAGE:

Store this product in original container only away from other pesticides, fertilizer, food or feed. Keep container closed.

DISPOSAL:

1. Triple- or pressure-rinse the empty container. Add the rinsings to the spray mixture in the tank.
2. Follow provincial instruction for any required additional cleaning of the container prior to its disposal.
3. Make the empty container unsuitable for further use.
4. Dispose of the container in accordance with provincial requirements.
5. For information on disposal of unused, unwanted product, contact the manufacturer or the provincial regulatory agency. Contact the manufacturer and the provincial regulatory agency in case of a spill, and for clean-up of spills.

DISPOSAL FOR RETURNABLE CONTAINERS:

Do not reuse this container for any purpose. For disposal, empty container may be returned to the point of purchase (distributor/dealer).

For information on disposal of unused, unwanted product, contact the manufacturer or the provincial regulatory agency. Contact the manufacturer and the provincial regulatory agency in case of a spill, and for clean-up of spills.

NOTICE TO USER

This pest control product is to be used only in accordance with the directions on the label. It is an offence under the Pest Control Products Act to use this product in a way that is inconsistent with the directions on the label. The user assumes the risk to persons or property that arises from any such use of this product.