

SENCOR® 480 F

SUSPENSION HERBICIDE

GROUP	5	HERBICIDE
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AGRICULTURAL

NET CONTENTS: 1L to bulk

For control of certain grasses and broadleaf weeds

ACTIVE INGREDIENT: metribuzin 480 g/L

CONTAINS 1,2-BENZISOTHIAZOLIN-3-ONE AT 0.006% AS A PRESERVATIVE

REGISTRATION NO. 26280 PEST CONTROL PRODUCTS ACT



CAUTION

POISON

KEEP OUT OF REACH OF CHILDREN

SHAKE WELL BEFORE USING

READ THE LABEL AND BOOKLET BEFORE USING

Product Information: 1-888-283-6847

Bayer CropScience Inc.
Suite 200, 160 Quarry Park Blvd S.E.
Calgary, Alberta T2C 3G3

**In case of spills, poisoning or fire, telephone emergency response number 1-800-334-7577
(24 hours a day).**

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.

DIRECTIONS FOR USE: See the printed booklet provided with this container.

PRECAUTIONS: KEEP OUT OF REACH OF CHILDREN. Harmful if swallowed, inhaled or absorbed through skin. Avoid contact with skin, eyes, or clothing. Avoid breathing dust or spray mist. Users should wash hands before eating, drinking, chewing gum, using tobacco, or using the toilet. Users should remove clothing immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing. Wash contaminated clothing with soap and hot water before re-use. Wash skin thoroughly with soap and warm water after handling. Do not contaminate any body of water. Do not contaminate food or feed. Read and follow label instructions and directives. If this pest control product is to be used on a commodity that may be exported and you require information regarding Maximum Residue Limits for an importing country, please contact Bayer CropScience Canada Inc. at 1-888-283-6847 or www.cropscience.bayer.ca.

Applicators and other handlers must wear during mixing/loading, clean-up and repair activities: Long-sleeved shirt and long pants; Chemical-resistant gloves; Goggles or face shield; Shoes plus socks. NOTE: Users should remove personal protective equipment immediately after handling this product. Wash the outside of the gloves before removing. As soon as possible, wash thoroughly and change into clean clothing. Follow manufacturer's instructions for cleaning/maintaining Personal Protective Equipment (PPE) or use detergent and hot water. Keep and wash PPE separately from other laundry.

FIRST AID: Obtain prompt medical aid or contact a poison control centre IMMEDIATELY if poisoning should occur. Remove victim to safe, uncontaminated area. Take container, label or product name and Pest Control Product Registration Number with you when seeking medical attention.

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 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 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.

TOXICOLOGICAL INFORMATION: TO PHYSICIAN: No specific antidote is available. Treat symptomatically.

SYMPTOMS OF POISONING: The compound does not cause any definite symptoms that would be diagnostic. Poisoning is accompanied by breathing difficulties and sedation.

STORAGE: Store this product away from food or feed. Store in a cool, dry place and in such a manner as to prevent cross contamination with other pesticides, seeds, fertilizers, food, and feed. Store in original container and out of the reach of children, preferably in a locked storage area.

DISPOSAL

For Recyclable Container:

Do not reuse this container for any purpose. This is a recyclable container, and is to be disposed of at a container collection site. Contact your local distributor/dealer or municipality for the location of the nearest collection site. Before taking the container to the collection site:

1. Triple- or pressure-rinse the empty container. Add the rinsings to the spray mixture in the tank.
2. Make the empty, rinsed container unsuitable for further use.

If there is no container collection site in your area, dispose of the container in accordance with provincial requirements.

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

For Returnable-Refillable Container: For disposal, this empty container may be returned to the point of purchase (distributor/dealer). It must be refilled by the distributor/dealer with the same product. Do not use this container for any other purpose.

DISPOSAL OF UNUSED, UNWANTED PRODUCT: For information on the 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.

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GENERAL INFORMATION

PRECAUTIONS

- **KEEP OUT OF REACH OF CHILDREN.**
- Harmful if swallowed, inhaled or absorbed through skin.
- Avoid contact with skin, eyes, or clothing.
- Avoid breathing dust or spray mist.
- Users should wash hands before eating, drinking, chewing gum, using tobacco, or using the toilet.
- Users should remove clothing immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.
- Wash contaminated clothing with soap and hot water before re-use.
- Wash skin thoroughly with soap and warm water after handling.
- Do not contaminate any body of water.
- Do not contaminate food or feed.
- Read and follow label instructions and directives.
- If this pest control product is to be used on a commodity that may be exported and you require information regarding Maximum Residue Limits for an importing country, please contact Bayer CropScience Canada Inc. at 1-888-283-6847 or www.cropscience.bayer.ca.

Applicators and other handlers must wear during mixing/loading, clean-up and repair activities:

- Long-sleeved shirt and long pants;
- Chemical-resistant gloves;
- Goggles or face shield;
- Shoes plus socks.

NOTE:

- Users should remove personal protective equipment immediately after handling this product. Wash the outside of the gloves before removing. As soon as possible, wash thoroughly and change into clean clothing.
- Follow manufacturer's instructions for cleaning/maintaining Personal Protective Equipment (PPE) or use detergent and hot water. Keep and wash PPE separately from other laundry.

FIRST AID

Obtain prompt medical aid or contact a poison control centre IMMEDIATELY if poisoning should occur. Remove victim to safe, uncontaminated area. Take container, label or product name and Pest Control Product Registration Number with you when seeking medical attention.

- **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.
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TOXICOLOGICAL INFORMATION

TO PHYSICIAN: No specific antidote is available. Treat symptomatically.

SYMPTOMS OF POISONING: The compound does not cause any definite symptoms that would be diagnostic. Poisoning is accompanied by breathing difficulties and sedation.

ENVIRONMENTAL PRECAUTIONS

- Do not use treated vines or crops for food, feed, or forage unless they are specified on this label. Use only according to label direction.
- Do not apply when weather conditions favour drift from areas treated. Do not allow sprays to drift on to adjacent desirable plants.
- Do not contaminate water when disposing of equipment wash waters.
- Do not apply directly to water, or to areas where surface water is present.
- The use of this chemical may result in contamination of groundwater particularly in areas where soils are permeable (e.g., sandy soil) and/or the depth to the water table is shallow.
- Following application and during rainfall events that cause runoff, these chemicals may reach surface water bodies including streams and reservoirs.
- 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, fine textured or low in organic matter such as clay). Avoid application of this product when heavy rain is forecast.
- Do not exceed rates recommended on this label. Uneven application such as swath overlapping, variable tractor speed, spraying on turns, etc., may result in crop injury and increase chances of injury to succeeding crops.
- After harvest, tillage practices that provide thorough mixing of the soil may be helpful in reducing the chance of injury to succeeding crops.

SPRAYER CLEANUP

Spray equipment must be thoroughly cleaned to remove remaining traces of herbicide that might injure other crops. Drain any remaining spray solution of SENCOR 480 F from the spray tank and discard in non-crop areas away from water supplies. Rinse the spray tank and refill with water, adding a heavy-duty detergent at the rate of 250 mL/100 L of water. Recycle this mixture through the equipment for 5 minutes and spray out. Repeat this procedure twice. Fill the spray tank with clean water, recycle for 5 minutes, and spray out. Clean pump and nozzle screens thoroughly. Wash away any spray mixture from the outside of the spray tank, nozzles or spray rig.

TRIPLE RINSE PROCEDURE

1. Empty container into spray tank. Then drain in vertical position for 30 seconds;
2. Add a measured amount of rinse water (or other diluent) so container is 1/4 or 1/5 full;
3. Rinse container thoroughly, pour into tank, and drain 30 seconds. Repeat three times. Add enough water to bring tank up to desired level.

STORAGE

Store this product away from food or feed. Store in a cool, dry place and in such a manner as to prevent cross contamination with other pesticides, seeds, fertilizers, food, and feed. Store in original container and out of the reach of children, preferably in a locked storage area.

DISPOSAL

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DISPOSAL OF UNUSED, UNWANTED PRODUCT: For information on the 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.

DIRECTIONS FOR USE

MIXING AND SPRAYING INSTRUCTIONS

- It is essential that the sprayer be properly calibrated before making application.
- Spray Pressure - 150 to 275 kPa; for lentils, pea, and processing pea use 275 kPa only.
- Spray Volume - refer to appropriate crop section for water volume.
- Use screens no finer than 0.3 mm (50 mesh) in nozzle and in-line strainers (felt filters, or smaller screens will become clogged). A 16 mesh screen is recommended for the filter on the inlet side of the pump.
- Nozzle tips should be no finer than 6502, 8002 or TK 2.
- Do not use airblast or other high pressure spray equipment to apply SENCOR 480 F.
- VIGOROUS, CONTINUOUS AGITATION IS ESSENTIAL FOR PROPER MIXING THROUGHOUT FILLING AND SPRAYING OPERATIONS. Return line agitation is not sufficient. Sparge tube, jet or mechanical agitation is required. Agitation should be sufficient to create a rippling or rolling action on the surface. A pump must be of sufficient capacity to provide adequate volume through the by-pass and/or jet agitation system to provide sufficient agitation even while the booms are operating.
- The sprayer should be checked frequently during application to be sure it is working properly and delivering a uniform spray pattern.
- Avoid over-laps that will increase dosages above those recommended.
- **DO NOT APPLY USING AERIAL APPLICATION EQUIPMENT.**

Before mixing SENCOR 480 F and its labelled tank-mixtures, examine the spray equipment making sure it is completely clean and free of rust or corrosion. To ensure the equipment is free of any residues from previously used pesticides, flush lines with clean water or recommended detergents. Use an approved method for disposing of rinse water.

Refer to the other product label for pertinent recommendations regarding mixing procedures. The proper mixing sequence for SENCOR 480 F and recommended tank-mixtures is as follows:

1. Fill the spray tank or nurse tank 1/4 full with water.
2. Start recirculation and agitation system and continue throughout mixing and application.
3. Add recommended amount of SENCOR 480 F.
4. If tank-mixing with wettable powders or other dry flowable products refer to these product labels for specific mixing instructions.
5. Fill the spray tank with water to the desired level.
6. If tank-mixing with emulsifiable concentrates or soluble products, add these products near end of filling the spray tank.
7. Continue agitation during transport and application until the spray tank is empty.

SENCOR 480 F and all registered mixtures should be kept agitated once mixed and then sprayed out immediately. Do not allow mixtures to stand for prolonged periods of time. Water quality, pH, temperature and/or other components of the mixture may affect how long the mixture can stand before application.

NOTE: If spraying and agitation is stopped before the spray tank is empty, the suspended material will settle to the bottom of the tank. When spraying must be interrupted, it is recommended to maintain agitation until spraying resumes. If agitation must be stopped before the spray tank is empty, follow these steps to resume spraying:

1. Remove main filter.
2. Mechanically mix spray solution (i.e., paddle) prior to restarting pump. Ensure that loose sediment is moved out to the sump area.
3. Start agitation on full.
4. Paddle corners of the tank.
5. Reinstall main filter.

At the end of each spray day, rinse out the tank and sprayer lines with water.

RE-ENTRY INTERVAL

Do not enter or allow re-entry into treated areas until 12 hours after application. Exception: If the product is soil-injected or soil-incorporated, workers may enter the treated area if there will be no contact with anything that has been treated.

It is recommended that this product not be applied in a way that will contact workers or other persons, either directly or through drift. Only handlers wearing personal protective equipment may be in the area during application.

SPRAY DRIFT MANAGEMENT

Field sprayer application: **DO NOT** apply during periods of dead calm or when winds are gusty. **DO NOT** apply with spray droplets smaller than the American Society of Agricultural Engineers (ASAE) medium classification.

BUFFER ZONES

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, woodlots, hedgerows, pastures, rangelands, and shrublands), sensitive freshwater habitats (such as lakes, rivers, sloughs, ponds, prairie potholes, creeks, marshes, streams, reservoirs, and wetlands), and estuarine/marine habitats.

Crop	Method of Application	Buffer Zones (metres) Required for the Protection of:						
		Freshwater Habitats of Depths			Estuarine/Marine Habitats of Depths			Terrestrial Habitat
		Less than 1 m	1–3 m	Greater than 3 m	Less than 1 m	1–3 m	Greater than 3 m	
All crops except tomatoes	Field sprayer	5	2	1	5	2	1	10
	Field sprayer with shrouds	2	1	0	2	1	0	3
	Field sprayer with cones	4	1	1	4	1	1	5
Tomatoes	Field sprayer	10	3	1	5	2	1	15
	Field sprayer with shrouds	3	1	0	2	1	0	5
	Field sprayer with cones	5	2	1	4	1	1	10

For tank mixes, consult the labels of the tank-mix partners and observe the largest (most restrictive) spray 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.

The spray buffer zones for this product can be modified based on weather conditions and spray equipment configuration by accessing the Spray Buffer Zone Calculator on the Pesticides portion of the Canada.ca website.

RESISTANCE MANAGEMENT RECOMMENDATIONS

For resistance management, SENCOR 480 F is a Group 5 herbicide. Any weed population may contain or develop plants naturally resistant to SENCOR 480 F and other Group 5 herbicides. The resistant biotypes may dominate the weed population if these herbicides are used repeatedly in the same field. Other resistance mechanisms that are not linked to site of action, but specific for individual chemicals, such as enhanced metabolism, may also exist. Appropriate resistance-management strategies should be followed.

To delay herbicide resistance:

- Where possible, rotate the use of SENCOR 480 F or other Group 5 herbicides within a growing season (sequence) or among growing seasons with different herbicide groups that control the same weeds in a field.
- Use tank mixtures with herbicides from a different group when such use is permitted. To delay resistance, the less resistance-prone partner should control the target weed(s) as effectively as the more resistance-prone partner.
- Herbicide use should be based on an integrated weed management program that includes scouting, historical information related to herbicide use and crop rotation, and considers tillage (or other mechanical control methods), cultural (for example, higher crop seeding rates; precision fertilizer application method and timing to favour the crop and not the weeds), biological (weed-competitive crops or varieties) and other management practices.
- Monitor weed populations after herbicide application for signs of resistance development (for example, only one weed species on the herbicide label not controlled). If resistance is suspected, prevent weed seed production in the affected area if possible by using an alternative herbicide from a different group. Prevent movement of resistant weed seeds to other fields by cleaning harvesting and tillage equipment when

moving between fields, and planting clean seed.

- Have suspected resistant weed seeds tested by a qualified laboratory to confirm resistance and identify alternative herbicide options.
- Contact your local extension specialist or certified crop advisors for any additional pesticide resistance-management and/or integrated weed-management recommendations for specific crops and weed biotypes.
- For further information or to report suspected resistance, contact Bayer at 1-888-283-6847 or at www.cropscience.bayer.ca.

EASTERN CANADA USES

CROP INFORMATION AND RESTRICTIONS

SENCOR 480 F provides selective weed control in:

CANADA EAST
<ul style="list-style-type: none">• Soybeans• Potatoes• Field Corn• Transplanted Tomatoes (grown for processing only)• Asparagus (Established)• Sweet White Lupins• Processing carrots• Fruit trees (newly planted, established)• Transplanted Tomatoes (grown for fresh market only)

SENCOR 480 F may injure rotational crops:

- Rotation crops such as onions, celery, peppers, cole crops, lettuce and spinach, sugar beets, table beets and turnips, pumpkin and squash, cucumbers and melons, tobacco, and non-triazine tolerant canola (rapeseed) are sensitive to SENCOR 480 F and may be injured if planted in soil treated with SENCOR 480 F during the year of application or the following crop year.
- Fall seeded or cover crops such as wheat, oats, and rye may be injured when seeded within the same season as the application of SENCOR 480 F.

WEEDS CONTROLLED

NOTE: SENCOR 480 F DOES NOT CONTROL TRIAZINE TOLERANT WEED BIOTYPES

GRASS WEEDS

Barnyard grass	Green foxtail
Cheat grass	Johnson grass (seedling)
Crab grass	Witch grass
Fall panicum	Yellow foxtail
Giant foxtail	

BROADLEAF WEEDS

Carpetweed ¹	Prickly mallow ¹
Cocklebur	Prostrate pigweed
Common chickweed	Redroot pigweed
Common ragweed	Russian thistle
Corn spurry ³	Shepherd's purse
Dandelion (seedling)	Stinkweed ²

Green smartweed	Velvetleaf
Hempnettle ³	Wild buckwheat ²
Jimsonweed ¹	Wild mustard
Lady's-thumb	Wild potato vine
Lamb's-quarter	Yellow woodsorrel ¹

1. PREEMERGENCE only
2. POSTEMERGENCE only
3. Suppression with multiple postemergence applications of 300 mL/ha.

**WEEDS CONTROLLED (CANADA EAST) in Field Corn with SENCOR 480 F
in tank-mixture with the herbicides Dual Magnum or Dual II Magnum plus Atrazine or Primextra**

GRASS WEEDS

Barnyard grass	Hairy crabgrass
Fall panicum	Old witchgrass
Giant foxtail	Smooth crabgrass
Green foxtail	Yellow foxtail

BROADLEAF WEEDS

American nightshade	Ragweed
Lady's-thumb	Redroot pigweed
Lamb's-quarter	Smartweed
Wild mustard	Velvetleaf
Purslane	Wild buckwheat

SOIL TYPES AND RESTRICTIONS

The recommended use rates of SENCOR 480 F are dependent upon soil texture and organic matter content of the soil being treated. Rate tables in this label refer to the following three soil texture groups: coarse, medium and fine. If you are not sure how to classify your soil, contact your Bayer representative, Soils & Crops Advisor, or other knowledgeable person. The following chart includes a complete listing of soil textures included in each of the soil texture groupings:

COARSE	MEDIUM	FINE
Loamy sand Sandy loam	Loam Silt loam Silt Sandy clay loam Sandy clay	Silty clay loam Silty clay Clay loam Clay

- On variable soils with coarse sandy areas, some crop injury may occur on the sandy areas if the rate used is for the finer soil type.
- Sandy loam and silty clay loam soils are transitional soils and may be classified as medium textured soils in some regions.
- Do not use this product on MUCK soils. If SENCOR 480 F is applied to MUCK soils, subsequent crops may be injured.
- Do not use on coarse soils with less than 2% organic matter.

APPLICATION INFORMATION

PREPLANT SURFACE OR BURN-DOWN:

- In conservation tillage, minimum-tillage, ridge-tillage, strip-tillage, or no-tillage crop production systems.
- SENCOR 480 F alone or in combination with recommended tank-mixes may be applied as a broadcast spray up to 30 days before planting.
- If possible, do not move treated soil out of the row or move untreated soil to the soil surface during planting, as weed control may be reduced.
- Rainfall and/or overhead sprinkler irrigation is necessary to move SENCOR 480 F into the upper soil surface where weed seeds germinate.

PREPLANT INCORPORATION:

- Refer to the tank-mix partner label for proper incorporation instructions.
- Avoid deep incorporation since reduced weed control and/or crop injury may result.
- Incorporate with implements which provide uniform, shallow incorporation (example: finishing disk, harrow, rolling cultivator, etc.).
- a single incorporation is satisfactory, however a second incorporation will generally improve herbicide soil blending and improves weed control (particularly on coarse soils)

PREEMERGENCE APPLICATION:

- SENCOR 480 F alone, or in the recommended tank-mixes, may be applied to the soil surface as a broadcast spray after planting of the crop, but prior to weed or crop emergence.
- Preemergence application may be made in all tillage systems (conventional, conservation, minimum, ridge, etc.).
- Rainfall and/or overhead sprinkler irrigation is necessary to move SENCOR 480 F into the upper soil surface where weed seeds germinate.
- If adequate moisture is not received within 7 to 10 days after application and weeds begin to emerge from the soil, a light rotary hoeing or shallow incorporation (no deeper than 1.25 cm deep) will improve performance, minimize crop damage, activate chemical and prevent soil crusting.
- Dry weather conditions as well as excessive rainfall or irrigation following application may reduce weed control.
- Do not apply heavy irrigation immediately after application.

EARLY POSTEMERGENCE APPLICATION:

- Do not tank-mix with liquid fertilizers, oils, oil concentrates, or surfactants when applying postemergence because severe crop injury may occur.
- Do not harvest within 60 days of postemergence application unless otherwise indicated.
- Thorough spray coverage on weed foliage is essential for adequate control with postemergent applications.

SPLIT APPLICATION (POTATOES ONLY):

- If a split application is desired, the chemical may be applied preemergence and postemergence. Avoid soil incorporation.
- Do not apply more than 2.25 L/ha total per growing season.
- Do not harvest within 60 days of postemergence application unless otherwise indicated.

BAND APPLICATION:

- If a band application is desired, the chemical may be applied preemergence and postemergence as described above by using proportionally less SENCOR 480 F per hectare:
$$\frac{\text{Band width in centimetres}}{\text{Row width in centimetres}} \times \text{Broadcast rate/ha} = \text{Band rate/ha}$$
- Weeds between treated bands should be removed by cultivating, as needed, using protective fenders to keep freshly turned soil off treated bands.

SOYBEANS - EASTERN CANADA

- Apply specified dosage as preemergence broadcast spray in 150 to 300 L of water per hectare and as preplant incorporated in at least 100 L of water per hectare.
- Applications of SENCOR 480 F made at rates above those recommended may result in burning, yellowing or stunting of the crop. If heavy rains occur soon after application, plant injury may result, especially in poorly drained areas where water may stand for several days. Soybean seeds must be planted at least 4 cm below the soil surface.
- VARIETIES: Do not use SENCOR 480 F on AC Brant, Apache, Baron, Eramosa, Maple Amber, Maple Ridge, IA 1003 or S-240. Consult your Bayer representative, chemical dealer, or your seed supplier for information on the tolerance of soybean varieties, prior to SENCOR 480 F use.
- DO NOT USE SENCOR 480 F ON SANDY SOILS OR ON COARSE SOILS WITH LESS THAN 2% ORGANIC MATTER.
- Do not apply more than once per season regardless of method of application.

SENCOR 480 F Alone: Preemergence Application¹

Soil Types	Rates per hectare and organic matter		
	Less than 2%	2 to 4%	Over 4%
COARSE	DO NOT USE	850 mL	1.1 L
MEDIUM	1.1 L	1.5 L	1.75 L
FINE	1.75 L	2.0 L	2.25 L

1. REMARKS FOR NO or MINIMUM TILLAGE: DO NOT USE SENCOR 480 F on coarse soils. Under adverse conditions (drought), the following additives may be applied with the recommended treatments: crop oil concentrate (Assist) at 1% v/v or non-ionic surfactant at 0.1% v/v.

SENCOR 480 F IN COMBINATION WITH OTHER HERBICIDES

Refer to the other product label for pertinent recommendations, directions for use, restrictions, precautions and any additional weeds not specified on this label. Unless prohibited on this or other product labels, apply as a broadcast or band application.

SENCOR 480 F Tank-Mixes: Preplant Incorporated

Weeds controlled	Products	Rates per hectare and soil types		
		COARSE	MEDIUM	FINE
Annual grasses and broadleaf weeds	SENCOR 480 F ¹ plus Treflan E.C. (480 g/L)	850 mL	1.1 L	1.1 L
		1.2 L	1.7 L	2.4 L
Above plus yellow nutsedge	SENCOR 480 F ¹ plus Dual Magnum or Dual II Magnum	850 mL 1.15 – 1.75 L 1.15 – 1.75 L	1.1 L 1.15 – 1.75 L 1.15 – 1.75 L	1.1 L 1.15 – 1.75 L 1.15 – 1.75 L
	SENCOR 480 F plus Frontier ²	850 mL 1.25 - 1.4 L	1.1 L 1.25 - 1.4 L	1.1 L 1.25- 1.4 L

1. On heavy Brookston Clay soils, the SENCOR 480 F rate should be increased to a maximum rate of 1.75 L/ha for season long control.
2. The lower rate of Frontier Herbicide provides suppression only for yellow nutsedge.

SENCOR 480 F Preemergence Following Preplant Incorporated Applications of Other Herbicides

Weeds controlled	Products	Rates per hectare and soil types		
		COARSE	MEDIUM	FINE
Annual grasses and broadleaf weeds	Treflan E.C. (480 g/L) followed by SENCOR 480 F ¹	1.2 L 850 mL - 1.1 L	1.7 L 1.1 - 1.75 L	2.4 L 1.75 - 2.25 L
Above plus yellow nutsedge	Dual Magnum or Dual II Magnum followed by SENCOR 480 F ¹	1.15 – 1.75 L 1.15 – 1.75 L 850 mL - 1.1 L	1.15 – 1.75 L 1.15 – 1.75 L 1.1 - 1.75 L	1.15 – 1.75 L 1.15 – 1.75 L 1.75 - 2.25 L

1. The rate of SENCOR 480 F depends on soil organic matter levels. See rates for SENCOR 480 F alone. When broadleaf weed populations are low, rates of SENCOR 480 F may be reduced by 25%.

SENCOR 480 F Alone or in Tank-Mixes (No or Minimum Tillage Systems): Preplant Surface (up to 30 days before planting) or Burndown Application

Weeds controlled	Products ¹	Rates per hectare and soil types		
		COARSE	MEDIUM	FINE
Annual weeds less than 4 cm in height and residual control of annual weeds ³	SENCOR 480 F ²	Do not use	1.1 - 1.75 L	1.75 - 2.25 L
Above including triazine tolerant species	SENCOR 480 F plus linuron 480	Do not use	850 mL 1.75 L	1.1 L 2.0 L
Above including grasses	SENCOR 480 F plus Dual Magnum or Dual II Magnum plus linuron 480	Do not use	850 mL 1.15-1.75 L 1.15-1.75 L 1.75 L	1.1 L 1.15-1.75 L 1.15-1.75 L 2.0 L
	SENCOR 480 F ⁵ plus Pursuit (240 g a.e./L)		800 mL - 1.5 L 312 - 420 mL	960 mL - 2.0 L 312 - 420 mL
For improved burndown of above including control of annual weeds taller than 4 cm and emerged perennial weeds	One of the above treatments plus Roundup Original 360 Liquid ⁴ or Roundup Transorb Liquid ⁴ or Glyphos AU Soluble Concentrate ⁴	Do not use	1.25 L 1.25 L 1.25 L	1.25 L 1.25 L 1.25 L
Annual weeds less than 4 cm in height and residual control of annual weeds ⁵	SENCOR 480 F plus Dual Magnum or Dual II Magnum	1.0 – 1.1 L 1.15-1.75 L 1.15-1.75 L	1.1 – 1.75 L 1.15-1.75 L 1.15-1.75 L	1.75 – 2.2 L 1.15-1.75 L 1.15-1.75 L
Annual grasses and broadleaf weeds, including emerged annual or perennial weeds	Above treatment plus Roundup Roundup Original 360 Liquid or Roundup Transorb Liquid or Glyphos AU Soluble Concentrate or Touchdown 480	2.35-2.5 L 2.35-2.5 L 2.35-2.5 L 2.6-2.7 L		

1. Under adverse conditions (drought), and for improved burndown of small emerged annual weeds, the following additives may be applied with the recommended treatments:

- crop oil concentrate (Assist) at 1% v/v
- non-ionic surfactant at 0.1% v/v
- crop oil, 28-0-0, or 10-34-0 at 5% v/v (only for tank mixtures with the herbicides Dual Magnum or Dual II Magnum +/- Roundup Herbicide)

2. For improved burndown of small weeds less than 4 cm in height, Gramoxone Liquid Herbicide with Wetting Agent can be added at a rate of 2.5 L/ha.
3. Use the higher rate for the control of grass weeds or when broadleaf weeds are dense.
4. It is recommended that liquid formulations of products be used when tank-mixing with Roundup Herbicide. Perennial weeds, such as quackgrass, may not be controlled with lower rates of Roundup. Consult the Roundup label regarding perennial weeds controlled.
5. Use the higher rates when weeds are dense and/or soils with high organic matter (over 4%) and at the heavy end of the soil texture class.

SENCOR 480 F Tank Mixes: Preemergence Applications (for all tillage systems unless specified otherwise)

Weeds controlled	Products	Rates per hectare and soil types		
		COARSE	MEDIUM	FINE
Annual grasses and broadleaf weeds	Conventional Tillage SENCOR 480 F plus Axiom DF	780 mL 0.84 kg	1.0 L 1.12 kg	1.3 L 1.26 kg
	SENCOR 480 F plus Frontier	850 mL 1.1- 1.25 L	1.1 L 1.1-1.4 L	1.1 L 1.1-1.4 L
	Conventional Tillage SENCOR 480 F ^{2,3} plus Dual Magnum or Dual II Magnum	850 mL-1.1 L 1.15-1.75 L 1.15-1.75 L	1.1 - 1.75 L 1.15-1.75 L 1.15-1.75 L	1.75 - 2.25 L 1.15-1.75 L 1.15-1.75 L
Above weeds plus partial control of eastern black nightshade and Proso millet	Conventional Tillage SENCOR 480 F ² plus Pursuit (240 g a.e./L)	850 mL-1.1 L 312 – 420 mL	1.1-1.75 L 312 – 420 mL	1.75 - 2.25 L 312 – 420 mL
	No or Min. Tillage SENCOR 480 F ^{1,5} plus Pursuit (240 g a.e./L)	Do not use	800 mL - 1.5 L 312 – 420 mL	960 mL -2.0 L 312 – 420 mL
Annual grasses and broadleaf weeds including triazine tolerant broadleaf species	Conventional Tillage SENCOR 480 F ⁵ plus linuron 480	700 - 800 mL 1.0 – 2.0 L	800 mL-1.1 L 1.0 - 2.5 L	1.1 - 1.5 L 1.0 - 2.5 L
	Conventional Tillage SENCOR 480 F plus Broadstrike Dual (923 g/L) ⁸	600 - 800 mL 1.85 - 2.4 L	800 mL - 1.0 L 1.85 - 2.4 L	800 mL - 1.0 L 1.85 - 2.4 L
	No or Min. Tillage SENCOR 480 F ¹ plus linuron 480	Do not use	850 mL 1.75 L	1.1 L 2.0 L
	SENCOR 480 F plus Lorox DF plus Frontier	Do not use	720 mL - 1.0 L 1.4 - 1.7 kg 1.1 - 1.4 L	1.0 - 1.12 L 1.7 - 2.0 kg 1.1 - 1.4 L
	Conventional Tillage SENCOR 480 F plus Axiom DF plus Lorox DF	780 mL 0.84 kg 1.4 kg	940 mL 1.12 kg 1.7 kg	1.0 L 1.26 kg 2.0 kg
Above including nightshade (Eastern black, American)	SENCOR 480 F ¹ plus linuron 480 plus Dual Magnum ⁴ or Dual II Magnum ⁴	750 mL 1.5 L 1.15-1.75 L 1.15-1.75 L	850 mL 1.75 L 1.15-1.75 L 1.15-1.75 L	1.0 L 2.0 L 1.15-1.75 L 1.15-1.75 L

(continued on next page)

SENCOR 480 F Tank Mixes: Preemergence Applications (for all tillage systems unless specified otherwise)
(continued)

Weeds controlled	Products	Rates per hectare and soil types		
		COARSE	MEDIUM	FINE
For improved burndown of weeds listed above, including control of weeds taller than 4 cm and emerged perennials	One of the above treatments in No or Min. Tillage plus Roundup Original 360 Liquid ^{6,9} or Roundup Transorb Liquid ^{6,9} or Glyphos AU Soluble Concentrate ^{6,9}	Do not use	1.25 L 1.25 L 1.25 L	1.25 L 1.25 L 1.25 L
For improved burndown of annual grasses and broadleaf weed less than 4 cm in height	No or Min. Tillage SENCOR 480 F ^{1,2,5} plus Gramoxone Liquid Herbicide with Wetting Agent ⁷	Do not use	1.1 - 1.75 L 2.5 L	1.75 - 2.25 L 2.5 L
Annual grasses and broadleaf weeds including nightshade	No or Min. Tillage SENCOR 480 F ^{1, 2,3,5} plus Dual Magnum or Dual II Magnum	850 mL 1.15-1.75 L 1.15-1.75 L	1.1 - 1.75 L 1.15-1.75 L 1.15-1.75 L	1.75 - 2.25 L 1.15-1.75 L 1.15-1.75 L
Annual grasses and broadleaf weeds including nightshade, emerged annual or perennial weeds	Above treatment plus Roundup Original 360 Liquid or Roundup Transorb Liquid or Glyphos AU Soluble Concentrate or Touchdown 480		2.35-2.5 L 2.35-2.5 L 2.35-2.5 L 2.6-2.7 L	

1. In NO or MINIMUM TILLAGE, under adverse conditions (drought), and for improved burndown of small emerged annual weeds, the following additives may be applied with the recommended treatments:
crop oil concentrate (Assist) at 1% v/v
non-ionic surfactant at 0.1% v/v
crop oil, 28-0-0, or 10-34-0 at 5% v/v (only for tank mixtures with the herbicides Dual Magnum or Dual II Magnum +/- Roundup Herbicide)
2. The rate of SENCOR 480 F depends on soil organic matter levels. See rates for SENCOR 480 F alone.
3. When broadleaf weed populations are low, rates of SENCOR 480 F may be reduced by 25%.
4. In NO or MINIMUM TILLAGE, DO NOT USE this tank-mixture on coarse soils.
5. Use the higher rates when weeds are dense and/or soils with high organic matter (over 4%) and at the heavy end of the soil texture class.
6. Except tank mixtures that include Frontier Herbicide.
7. Apply this tank-mixture after planting, but no later than 3 days prior to crop emergence.
8. Within the application rate range, use the higher rate of SENCOR 480 F and Broadstrike Dual Herbicide only if there is a combination of the following: heavy plant residues on soil surface, heavy weed pressure, and soil of more than 4% organic matter.
9. It is recommended that liquid formulations of products be used when tank-mixing with Roundup Herbicide. Perennial weeds, such as quackgrass, may not be controlled with lower rates of Roundup. Consult the Roundup label regarding perennial weeds controlled.

POTATOES

EASTERN CANADA, COASTAL BRITISH COLUMBIA AND UNDER IRRIGATED CONDITIONS IN WESTERN CANADA

- Apply specified dosage in 100 to 300 L of water per hectare, depending on equipment and local practices.
- Do not use on the varieties Belleisle or Tobique.
- Consult your chemical dealer or your seed supplier for information on the tolerance of newly released potato varieties, prior to SENCOR 480 F use.
- Do not harvest within 60 days of application.
- If a hilling is done before emergence, allow time for the soil to settle or crust before application. This will help reduce loose treated soil from moving off the hill to the bottom of the trench and leaving untreated areas on the side of the hills. For best results it is also recommended that hilling following application be delayed as long as possible before foliage fills in the rows. Supplemental row cultivation on potatoes may also be helpful to improve weed control.
- The higher rates are recommended for longer season potatoes or where longer control is required and where weed infestations are heavy.

SENCOR 480 F IN COMBINATION WITH OTHER HERBICIDES

Refer to the other product label for pertinent recommendations, directions for use, restrictions, precautions, and any additional weeds not specified on this label. Unless prohibited on this or other product labels, apply as a broadcast or band application.

SENCOR 480 F Alone or in Tank-Mixes: Preemergence Applications¹

Weeds controlled	Products	Rates per hectare
Annual grasses and broadleaf weeds. Suppression of quackgrass and yellow nutsedge at high rate	SENCOR 480 F	850 mL - 2.25 L
Above including grasses	SENCOR 480 F plus Dual Magnum ² or Dual II Magnum ²	1.1 - 2.25 L 1.25 – 1.75 L 1.25 – 1.75 L
Above including weeds more than 4 cm tall and quackgrass	SENCOR 480 F plus Gramoxone Liquid Herbicide with Wetting Agent	1.1 - 1.75 L 2.75 L
Annual broadleaf weeds including triazine resistant weeds in early potatoes	SENCOR 480 F ³ plus linuron 480 g/L	850 mL - 1.25 L 1.6 - 2.5 L
Above weeds in late potatoes	SENCOR 480 F plus linuron 480 g/L	1.5 - 1.75 L 3.0 - 3.75 L
Heavy infestation of annual grasses and/or nightshade in late potatoes	SENCOR 480 F plus Dual Magnum ² or Dual II Magnum ² plus linuron 480 g/L	1.0 - 1.5 L 1.15 – 1.6 L 1.15 – 1.6 L 2.0 - 3.0 L

1. Apply immediately after planting or after hilling. Avoid soil incorporation. If a hilling is done before emergence, allow time for the soil to settle or crust before application. This will help reduce loose treated soil from moving off the hill to the bottom of the trench and leaving untreated areas on the sides of the hills. For best results it is also recommended that hilling following application be delayed as long as possible before foliage fills the rows.
2. Do not use tank-mixes with Dual Magnum or Dual II Magnum on the variety Superior or on sandy or coarse textured soils low in organic matter. Do not apply tank-mixes with Dual Magnum or Dual II Magnum at ground crack or if potatoes have emerged. Do not use tank-mixes with Dual Magnum or Dual II Magnum on muck, peat or high organic matter soils.
3. The 850 mL/ha rate of SENCOR 480 F has provided effective annual broadleaf weed control in full season potatoes in Atlantic Canada. Higher rates are recommended for longer season potatoes or where longer control is required and where weed infestations are heavy.

SENCOR 480 F Alone or in Tank-Mixes: Early Postemergence¹

Weeds controlled	Products	Rates per hectare
Annual grasses and broadleaf weeds ²	SENCOR 480 F	850 mL - 2.25 L
Annual grasses ⁴ including Volunteer corn, Persian darnel, Volunteer spring wheat and barley, Wild oats, Wild proso millet, Quack grass ⁵ , Wire stemmed Muhly	SENCOR 480 F plus Venture L ³	850 mL 0.6 – 2.0 L ⁶

1. Apply specified dosage per hectare as a broadcast postemergence spray over the tops of potatoes when they are less than 10 cm high. Not all potato varieties have been tested for tolerance to SENCOR 480 F. Some potato varieties (such as early maturing, red-skinned, Atlantic, Eramosa, Shepody) can be sensitive to and injured by an application of SENCOR 480 F (such as yellowing/necrosis of leaf veins or leaf margins, stunting, and possible delay in harvest). First use of SENCOR 480 F on a potato variety must be limited to a small test area to ensure risk or level of potential injury is acceptable to the grower prior to adoption as a general field practice. Sensitivity to or injury after a postemergent application of SENCOR 480 F is typically visible in the test area within 5 days after application. Temporary yellowing or leaf burn may occur, especially if crop is under stress from poor growing conditions such as periods of cool, wet, and cloudy weather. Avoid postemergence application under these conditions.
2. Spray before weeds are 4 cm high. Use high rates for grasses or dense broadleaf weeds.
3. Do not harvest within 90 days of application.
4. Apply to actively growing annual grasses at the full 2-leaf to 5-leaf stages. For green and yellow foxtail, apply at full 2-leaf to 4-leaf stage.
5. Apply to actively growing plants that have 3 to 5 fully developed leaves.
6. Refer to Venture L Herbicide label for weed/rate chart.

SENCOR 480 F Preemergence or Early Postemergence¹ Following Preplant Incorporated Application of Other Herbicides or SENCOR 480 F Tank-Mixes Preplant Incorporated

Weeds controlled	Products	Rates per hectare
Annual grasses and broadleaf weeds (less than 4 cm in height) including yellow nutsedge	SENCOR 480 F plus Dual Magnum ² or Dual II Magnum ²	1.1 - 2.25 L 1.25 – 1.75 L 1.25 – 1.75 L
Heavy infestation of barnyard grass, annual grasses, and broadleaf weeds (less than 4 cm in height)	SENCOR 480 F plus Eptam 8-E	1.1 - 1.75 L 4.25 - 5.5 L

1. Apply specified dosage per hectare as a broadcast postemergence spray over the tops of potatoes when they are less than 10 cm high. Not all potato varieties have been tested for tolerance to SENCOR 480 F. Some potato varieties (such as early maturing, red-skinned, Atlantic, Eramosa, Shepody) can be sensitive to and injured by an application of SENCOR 480 F (such as yellowing/necrosis of leaf veins or leaf margins, stunting, and possible delay in harvest). First use of SENCOR 480 F on a potato variety must be limited to a small test area to ensure risk or level of potential injury is acceptable to the grower prior to adoption as a general field practice. Sensitivity to or injury after a postemergent application of SENCOR 480 F is typically visible in the test area within 5 days after application.
2. Do not use tank-mixes with Dual Magnum or Dual II Magnum on the variety Superior or on sandy or coarse textured soils low in organic matter. Do not apply tank-mixes with Dual Magnum or Dual II Magnum at ground crack or if potatoes have emerged. Do not use tank-mixes with Dual Magnum or Dual II Magnum on muck, peat or high organic matter soils.

SENCOR 480 F Alone in Split Applications: Preemergence or early Postemergence¹

Weeds controlled	Products	Rates per hectare
Annual grasses and broadleaf weeds	SENCOR 480 F	No more than 2.25 L per growing season

1. Apply specified dosage per hectare as a broadcast postemergence spray over the tops of potatoes when they are less than 10 cm high. Not all potato varieties have been tested for tolerance to SENCOR 480 F. Some potato varieties (such as early maturing, red-skinned, Atlantic, Eramosa, Shepody) can be sensitive to and injured by an application of SENCOR 480 F (such as yellowing/necrosis of leaf veins or leaf margins, stunting, and possible delay in harvest). First use of SENCOR 480 F on a potato variety must be limited to a small test area to ensure risk or level of potential injury is acceptable to the grower prior to adoption as a general field practice. Sensitivity to or injury after a postemergent application of SENCOR 480 F is typically visible in the test area within 5 days after application.

FIELD CORN - EASTERN CANADA

SENCOR 480 F can be used as a 3 way tank-mix with the herbicides Dual Magnum or Dual II Magnum and atrazine or as a 2 way tank-mix with Primextra Herbicide. Apply specified dosage as preemergence broadcast spray in 150 to 300 L of water per hectare. Do not use on Sweet Corn or Seed Corn. These tank-mix herbicide treatments control certain grass and broadleaf weeds, especially velvetleaf. Corn seeds must be planted at least 4 cm below the soil surface. Do not apply after corn has emerged. Some corn varieties are sensitive to SENCOR 480 F. Use SENCOR 480 F on the following varieties only:

Pioneer	Hyland	Asgrow	Cargill	Renk	Funk's
3737 3803	LG2350	RX578	4587	R148	G4309
3925 3902	LG2461		5157		G4299
3906 3790	HL2803				
3744 3772	HL2570				
3732 3475					
COOP	NK	DeKalb	Ferguson	Golden Harvest	Garst
6356	PX9214	DK-485	8758	H-2410	8882
	N4350	DK-535	8868		8808
Agri	Pickseed	First Line	Cardinal		
501	5577	1783	MX285		

SENCOR 480 F IN COMBINATION WITH OTHER HERBICIDES

Refer to the other product label for pertinent recommendations, directions for use, restrictions, precautions, and any additional weeds not specified on this label. Unless prohibited on this or other product labels, apply as a broadcast or band application.

SENCOR 480 F Tank-Mixes: Preemergence Application

Weeds controlled	Products	Rates per hectare ²
Annual grasses and broadleaf weeds	SENCOR 480 F ¹ plus Dual Magnum or Dual II Magnum plus atrazine 500 g/L	600 mL - 1.0 L 1.15 L 1.15 L 2.2 L
	SENCOR 480 F ¹ plus Primextra II Magnum	600 mL - 1.0 L 2.6 L

1. The SENCOR 480 F 1.0 L/ha rate should be used if a heavy weed infestation is expected.
2. Do not apply to sandy soils or light soils. Apply only to medium or fine soils.

TRANSPLANTED TOMATOES (GROWN FOR PROCESSING ONLY) - EASTERN CANADA

- Apply specified dosage in 150 to 300 L of water per hectare, depending on equipment and local practices.
- Do not apply to direct seeded tomatoes.
- Do not apply more than a total of 1.45 L/ha of SENCOR 480 F to COARSE SOILS, 2.2 L/ha to MEDIUM SOILS, or 2.8 L/ha to FINE SOILS per crop season.
- Do not apply the above mentioned total amounts of SENCOR 480 F for each soil type within a time span of less than 35 days.
- Allow at least 14 days between applications.
- Avoid application when tomatoes are under stress.
- Crop injury or delayed maturity may result from postemergence applications if tomatoes are growing under stress conditions such as periods of drought, flooding, or cool, wet or cloudy weather before application or at time of application. Stress can be expected if temperatures have been below 15°C or above 30°C. Three days of sunny weather should follow cloudy, cool weather before spraying SENCOR 480 F postemergence.
- Varieties differ in tolerance to SENCOR 480 F. Newly introduced varieties with unknown tolerance to SENCOR 480 F should only be treated in a small test area to determine tolerance.

SENCOR 480 F Alone Postemergence Application

Crop	Rates per hectare	Remarks
Transplant Tomatoes (grown for processing only) for weeds less than 4 cm in height	Single Application 550 mL to 1.75 L	Avoid contacting at least the top 2/3 of the tomato foliage with spray. Best results are usually obtained when application is about 3 weeks after transplanting. Use the lower rate on sandy soils. At the lower rate the treatment may not provide acceptable control of grasses. Do not harvest within 60 days of application.
	Multiple Application 300 mL	Reapply as new flushes of weeds emerge. Do not make more than 4 applications per season. The treatment may not provide acceptable control of grasses. Do not harvest within 30 days of application. On sunny days application should be made in the afternoon or early evening.

NOTE FOR MULTIPLE APPLICATION ONLY: The fungicide Bravo 500 at the rate of 2.4 to 4.8 L/ha can be tank-mixed with SENCOR 480 F following dosage and remarks for SENCOR 480 F used in Multiple Application. Refer to the Bravo 500 Fungicide label for diseases controlled and specific recommendations.

SENCOR 480 F IN COMBINATION WITH OTHER HERBICIDES

Refer to the other product label for pertinent recommendations, directions for use, restrictions, precautions, and any additional weeds not specified on this label. Unless prohibited on this or other product labels, apply as a broadcast or band application.

SENCOR 480 F Tank-Mixes: Preplant Incorporated followed by Postemergence Application of SENCOR 480 F Alone

Weeds controlled	Products	Rates per hectare and soil types		
		COARSE	MEDIUM	FINE
Annual grasses and broadleaf weeds	SENCOR 480 F	500 - 600 mL	750 mL - 1.1 L	1.2 - 1.4 L
	plus Treflan E.C. (480 g/L)	1.2 L	1.7 L	2.4 L
	followed by SENCOR 480 F (Postemergence)	850 mL	1.1 L	1.2 - 1.4 L

NOTE: For best season long control of annual grasses and annual broadleaf weeds apply a tank-mix of SENCOR 480 F with Treflan E.C. Herbicide and preplant incorporate into the soil before transplanting tomatoes. Then follow up with a directed postemergence application of SENCOR 480 F when weed escapes are less than 2.5 cm in height and transplants are well established (3 weeks after transplanting). Transplants must have recovered from transplant shock and new growth should be evident. This follow up SENCOR 480 F application is usually timed for early July but should not be applied any earlier than 21 days after transplanting tomatoes or no later than 60 days before harvest. SENCOR 480 F spray should be directed onto any emerged weeds in a manner to minimize application to crop plants. The total rate of two applications of SENCOR 480 F should not exceed the maximum total of SENCOR 480 F for each soil type. Do not mix or apply other pesticides to tomatoes

within 24 hours of SENCOR 480 F application. If weed pressure is light to medium, it may not be necessary to apply SENCOR 480 F twice. Shallow cultivation may also be used to complete the control of any weeds not normally controlled by SENCOR 480 F.

SENCOR 480 F Tank-Mixes: Preplant Incorporated

Weeds controlled	Products	Rates per hectare and soil types		
		COARSE	MEDIUM	FINE
Annual grasses, broadleaf weeds including nightshade and yellow nutsedge	SENCOR 480 F	500 mL	1.0 L	1.0 L
	plus Treflan E.C. (480 g/L)	1.1 L	2.1 L	2.1 L
	plus Dual Magnum	1.0 L	1.25 L	1.25 L
	or Dual II Magnum	1.0 L	1.25 L	1.25 L

CAUTION: THESE TANK-MIXES MAY DAMAGE TRANSPLANTS AND REDUCE CROP YIELD IF TRANSPLANTS HAVE BEEN WEAKENED BY ANY CAUSE. TO PREVENT DAMAGE PLANT ONLY HEALTHY TRANSPLANTS; DO NOT PLANT WHEN WET, COOL OR UNFAVORABLE CONDITIONS PREVAIL. FOLLOW ALL APPLICATION AND INCORPORATION DIRECTIONS EXACTLY. Do not use this mixture more than once per year. Apply spray solution followed by a shallow incorporation (5-7.5 cm). Then transplant tomatoes 5-10 cm deep. Do not harvest within 60 days of application.

ASPARAGUS (Established) - EASTERN AND WESTERN CANADA

SENCOR 480 F is recommended for use in ground spray equipment as a preemergence surface application to established asparagus in early spring before spears or ferns emerge and/or following last cutting. Apply specified dosage in 100 to 300 L of water per hectare, depending on equipment and local practices. Do not use on newly seeded asparagus or on young plants during the first growing season after setting crowns. Do not apply to established crops after emergence of spears.

SENCOR 480 F Alone: Preemergence Application

Crop	Rate per hectare	Remarks
Asparagus (established)	2.25 L	If the field is to be disked, apply SENCOR 480 F after disking but before the crop emerges. Do not apply within 14 days of harvest.

SWEET WHITE LUPINS - MARITIME PROVINCES ONLY

- **DO NOT APPLY TO LUPINS INTENDED FOR HUMAN CONSUMPTION.**
- Apply specified dosage in 150 to 300 L of water per hectare, depending on equipment and local practices.
- Seed must be planted at least 4 cm below the soil surface.
- Do not apply on COARSE soils with less than 2% organic matter.
- Apply during planting or as a separate operation, before crop emerges.
- Do not apply more than once per season.
- Applications of SENCOR 480 F made at rates above those recommended may result in burning, yellowing or stunting of the crop.
- If heavy rains occur soon after application, plant injury and stand reduction may result, especially in poorly drained areas where water may stand for several days.
- Do **not** use treated vines for feed or forage

SENCOR 480 F IN COMBINATION WITH OTHER HERBICIDES

Refer to the other product label for pertinent recommendations, directions for use, restrictions, precautions, and any additional weeds not specified on this label. Unless prohibited on this or other product labels, apply as a broadcast or band application.

SENCOR 480 F Alone or in Tank-Mixes: Preemergence Applications

Weeds controlled	Products	Rates per hectare and soil types		
		COARSE	MEDIUM	FINE
Annual weeds	SENCOR 480 F	850 mL	1.0 L	1.0 L
Annual grasses and broadleaf weeds including nightshade ¹	SENCOR 480 F	1.0 L	1.0 L	1.0 L
	plus Dual Magnum ¹	1.1 – 1.75 L	1.1 – 1.75 L	1.1 – 1.75 L
	or Dual II Magnum ¹	1.1 – 1.75 L	1.1 – 1.75 L	1.1 – 1.75 L

- 1 For optimum nightshade control and for heavier weed problems, use higher rate of the herbicides Dual Magnum or Dual II Magnum.

PROCESSING CARROTS - ATLANTIC CANADA ONLY

- To be used only on processing carrots previously treated with preemergent application of linuron herbicide (1100 g ai/ha; please refer to respective product labels for pertinent recommendations, directions for use, restrictions and precautions).
- Apply SENCOR 480 F when the fourth leaf is partially expanded on most carrot plants, followed by a second application, if necessary, when the fifth leaf is partially expanded (about 6 days after first application).
- Carrot varieties differ in their tolerance to SENCOR 480 F: growers should limit first use of SENCOR 480 F to a limited area of each cultivar before adoption as a field practice.
- It may be necessary to delay harvest of more sensitive cultivars treated with SENCOR 480 F.
- Do not apply on COARSE soils with less than 2% organic matter.

SENCOR 480 F Alone: Postemergence Application

Weeds controlled	Product	Rate per hectare
Annual weeds including Scentless chamomile	SENCOR 480 F	550 mL

NEWLY PLANTED FRUIT TREES - EASTERN CANADA AND BRITISH COLUMBIA

- **Use on apple, apricot, cherry, peach, pear and plum trees in the year of planting.**
- Apply specified dosage as a preplant incorporated application in 150 - 300 L of water per hectare before transplanting fruit trees.
- Do not apply more than once per crop season.

SENCOR 480 F IN COMBINATION WITH OTHER HERBICIDES

Refer to the other product label for pertinent recommendations, directions for use, restrictions, precautions and any additional weeds not specified on this label. Unless prohibited on this or other product labels, apply as a broadcast or band application.

SENCOR 480 F Alone or in Tank-mixes: Preplant Incorporated

Weeds controlled	Products	Rates per hectare and soil types		
		COARSE	MEDIUM	FINE
Annual grasses and broadleaf weeds	SENCOR 480 F ¹	750 mL	1.1 L	1.5 L
	SENCOR 480 F	850 mL	1.1 L	1.1 L
	plus Treflan E.C. (480 g/L)	1.2 L	1.7 L	2.4 L

1. Do not use on pear or plum trees.

ESTABLISHED FRUIT TREES - EASTERN CANADA AND BRITISH COLUMBIA

- **Use on established (bearing) apple, apricot, peach, pear, plum and sweet and sour cherry trees.**
- Apply specified dosage as a preemergence band application under the trees in at least 150 L to 300 L of water per hectare.
- Do not apply more than once per crop season.

SENCOR 480 F IN COMBINATION WITH OTHER HERBICIDES

Refer to the other product label for pertinent recommendations, directions for use, restrictions, precautions and any additional weeds not specified on this label. Unless prohibited on this or other product labels, apply as a band application.

SENCOR 480 F Alone or in Tank-mixes: Preemergence Application

Weeds controlled	Product	Rate per hectare
Annual broadleaf weeds	SENCOR 480 F	1.5 L
Annual grasses and broadleaf weeds including yellow nutsedge, American nightshade and eastern black nightshade	SENCOR 480 F plus Dual Magnum or Dual II Magnum	1.5 L 1.75 L 1.75 L
Annual grasses and broadleaf weeds including bluegrass, perennial rye grass, wild barley, annual sow thistle, henbit, prickly lettuce and purslane	SENCOR 480 F Plus Sinbar ^{1,2,3}	1.5 L 0.63 kg

1. Do not use on soil coarser than sandy loam with less than 3% organic matter.
2. Do not use on apricot and plum trees.
3. Treatment usually provides partial control of quackgrass, horsenettle and yellow nutsedge.

The DIRECTIONS FOR USE for the uses described in this section of the label were developed by persons other than Bayer CropScience Inc. under the User Requested Minor Use Label Expansion program. For these uses, Bayer CropScience Inc. has not fully assessed performance (efficacy) and/or crop tolerance (phytotoxicity) under all environmental conditions or for all crop varieties when used in accordance with the label. The user should test the product on a small area first, under local conditions and using standard practices, to confirm the product is suitable for widespread application.

TRANSPLANTED TOMATOES (grown for fresh market only) – EASTERN CANADA

- Apply specified dosage in 150 to 300 L of water per hectare, depending on equipment and local practices.
- Do not apply to direct seeded tomatoes.
- Apply after transplanted tomatoes have recovered from transplant shock and new growth is evident.
- Allow at least 14 days between applications.
- Avoid application when tomatoes are under stress.
- Crop injury or delayed maturity may result from postemergence applications if tomatoes are growing under stress conditions such as periods of drought, flooding, or cool, wet or cloudy weather before application or at time of application. Stress can be expected if temperatures have been below 15°C or above 30°C. Three days of sunny weather should follow cloudy, cool weather before spraying SENCOR 480 F postemergence.
- Tomato varieties differ in tolerance to SENCOR 480 F. Since not all tomato varieties have been tested for tolerance to SENCOR 480 F, first use of SENCOR 480 F should be limited to a small area of each variety to confirm tolerance prior to adoption as a general field practice. Additionally, consult your plant supplier for information on the tolerance of specific tomato varieties to SENCOR 480 F.
- Do not apply on COARSE soils with less than 2% organic matter.
- DO NOT APPLY USING AERIAL APPLICATION EQUIPMENT.

SENCOR 480 F Alone: Postemergence Application in Transplant Tomatoes

Weeds controlled	Products*	Rate per hectare	Remarks
Annual grasses and broadleaf weeds less than 4 cm in height	SENCOR 480 F	300 mL	Reapply as new flushes of weeds emerge. Do not make more than 4 applications per season. The treatment may not provide acceptable control of grasses. Do not harvest within 30 days of application. On sunny days application should be made in the afternoon or early evening.

*NOTE: The fungicide Bravo 500 at the rate of 2.4 to 4.8 L/ha can be tank-mixed with SENCOR 480 F following dosage and remarks for SENCOR 480 F used in Multiple Applications. Refer to the Bravo 500 Fungicide label for diseases controlled and specific recommendations.

WESTERN CANADA USES

CROP INFORMATION AND RESTRICTIONS

SENCOR 480 F provides selective weed control in:

CANADA WEST
<ul style="list-style-type: none">• Spring Barley and Spring Wheat• Dryland Winter Wheat• Field Peas• Processing Peas• Chickpeas• Lentils• Soybeans• Faba beans• Potatoes, Potatoes Sprinkler Irrigation Application• Alfalfa• Asparagus (Established)• Shelterbelts

SENCOR 480 F may injure the following rotational crops:

- Rotation crops such as onions, celery, peppers, cole crops, lettuce and spinach, sugar beets, table beets and turnips, pumpkin and squash, cucumbers and melons, tobacco, and non-triazine tolerant canola (rapeseed) are sensitive to SENCOR 480 F and may be injured if planted in soil treated with SENCOR 480 F during the year of application or the following crop year.
- Fall seeded or cover crops such as wheat, oats, and rye may be injured when seeded within the same season as the application of SENCOR 480 F.

WEEDS CONTROLLED

NOTE: SENCOR 480 F DOES NOT CONTROL TRIAZINE TOLERANT WEED BIOTYPES AND THE HERBICIDES TREFLAN E.C. AND RIVAL DO NOT CONTROL TRIFLURALIN TOLERANT WEED BIOTYPES.

Spring Wheat and Spring Barley (Postemergence at a rate of 275 mL/ha)

Common chickweed, Green smartweed, Hempnettle (suppression** only), Lady's-thumb, Lamb's-quarter, Redroot pigweed, Stinkweed, Volunteer non-triazine tolerant canola, Wild mustard

Spring Wheat and Spring Barley (Postemergence at a rate of 425 to 550 mL/ha)

Ball mustard, Common chickweed, Common Groundsel, Corn spurry, Green smartweed, Hempnettle, Henbit (550 mL/ha only), Lady's-thumb, Lamb's-quarter, Night flowering catchfly, Red root pigweed, Russian thistle (550 mL/ha only), Stinkweed, Tartary buckwheat, Volunteer non-triazine tolerant canola, Wild mustard, Wormseed mustard

Dryland Winter Wheat (Norstar only) (Postemergence at a rate of 850 mL to 1.12 L/ha)

Downy Brome, Stinkweed, Flixweed, Shepherd's purse

Chickpeas and Lentils as Postemergence Application (SUPPRESSION ONLY)**

Ball mustard, Common chickweed, Corn spurry, Green smartweed, Hempnettle, Lamb's-quarter, Stinkweed, Tartary buckwheat, Volunteer non-triazine tolerant canola, Wild mustard

Processing Peas, Field Peas (Postemergence)

Ball mustard, Common chickweed, Corn spurry, Green smartweed, Hempnettle, Lamb's-quarter, Stinkweed, Tartary buckwheat, Volunteer non-triazine tolerant canola, Wild mustard

Field Peas, Soybeans, Faba beans and Lentils (Preplant Incorporated with Treflan E.C. Herbicide)

Annual blue grass, Barnyard grass, Brome grass, Cheat grass, Goose grass, Green foxtail, Persian dandel, Stink grass, Wild oats, Yellow foxtail,

Carpetweed, Chickweed, Cow cockle, Green smartweed, Hempnettle, Knotweed, Lady's-thumb, Lamb's-quarter, Purslane, Redroot pigweed, Russian Thistle (not controlled in Faba beans), Shepherd's purse, Stinkweed, Volunteer non-triazine tolerant canola, Wild buckwheat, Wild mustard

Field Peas (Preplant Incorporated with Rival Herbicide)

Annual blue grass, Barnyard grass, Brome grass, Cheat grass, Crab grass, Goose grass, Green foxtail, Persian dandel, Stink grass, Wild oats, Yellow foxtail,

Carpetweed, Chickweed, Corn spurry, Cow cockle, Green smartweed, Hempnettle, Kochia, Knotweed, Lady's-thumb, Lamb's-quarter, Purslane, Redroot pigweed, Shepherd's purse, Stinkweed, Volunteer non-triazine tolerant canola, Wild buckwheat, Wild mustard

Potatoes, Potatoes Sprinkler Irrigation Application

Ball mustard, Common chickweed, Corn spurry, Green smartweed, Hempnettle, Lady's-thumb, Lamb's-quarter, Redroot pigweed, Shepherd's purse, Stinkweed, Tartary buckwheat, Volunteer non-triazine tolerant canola, Wild mustard

Alfalfa

Annual sow thistle, Downy brome, Flixweed, Green foxtail, Kochia, Lamb's-quarters, Pasture sage, Redroot pigweed, Russian thistle, Shepherd's purse, Stinkweed, Wild oats

Shelterbelts

Green foxtail, Wild oats, Witch grass

Lamb's-quarter, Prostrate pigweed, Purslane, Russian thistle, Shepherd's purse, Stinkweed, Wild buckwheat

**Suppression is a visual reduction in weed competition (reduced population and /or vigour) as compared to an untreated area.

SOIL TYPES AND RESTRICTIONS

The recommended use rates of SENCOR 480 F are dependent upon soil texture and organic matter content of the soil being treated. Rate tables in this label refer to the following three soil texture groups: coarse, medium, and fine. If you are not sure how to classify your soil, contact your Bayer representative, Soils & Crops Advisor, or other knowledgeable person. The following chart includes a complete listing of soil textures included in each of the soil texture groupings:

COARSE	MEDIUM	FINE
Loamy sand Sandy loam	Loam Silt loam Silt Sandy clay loam Sandy clay	Silty clay loam Silty clay Clay loam Clay

- On variable soils with coarse sandy areas, some crop injury may occur on the sandy areas if the rate used is for the finer soil type.
- Sandy loam and silty clay loam soils are transitional soils and may be classified as medium textured soils in some regions.
- Do not use this product on MUCK soils. If SENCOR 480 F is applied to MUCK soils, subsequent crops may be injured.
- Do not use on coarse soils with less than 2% organic matter.

APPLICATION INFORMATION

PREPLANT INCORPORATION (FALL AND SPRING APPLICATIONS)

- Cultivate to destroy existing weeds before SENCOR 480 F plus tank-mix partner application. When applying to stubble field, chop and thoroughly mix crop residue into soil to a depth of 10-15 cm. Disc type implements provide the best results. To avoid concentration of wild oat seed below the treated layer, do not plow (moldboard).
- SENCOR 480 F tank-mixes may be applied as a broadcast spray and incorporated into the soil in two different directions (see table below for specific instructions).
- SENCOR 480 F in combination with recommended tank-mix may be applied in the spring or the fall. First incorporation must be done within 24 hours after application. For fall application, the second incorporation may be done in the spring at the time of seedbed preparation. It is preferred to do both incorporations in the fall followed by shallow tillage (disc or vibrashank cultivator operated at 5-8 cm deep) in the spring prior to planting.
- Incorporation with implements set to cut less than 8 cm deep or more than 10 cm deep may result in erratic weed control or crop damage.
- Uneven application or improper incorporation of SENCOR 480 F and tank-mix partner can result in erratic weed control or crop injury depending on rate used.
- Stress conditions such as seedling disease, cold weather, deep planting, excessive moisture, high salt concentration, or drought may weaken seedlings and increase the possibility of crop damage from the herbicides. Temporary lightening in colour may occur on the margin of leaves or cotyledons and a slight delay in crop development may be observed. This is quickly outgrown and usually has no lasting effect.

Implement	Working depth	Tractor speed	Remarks
Tandem disk or discer	8 - 10 cm	7 - 10 km/hr.	Preferred on stubble
Vibrashank cultivator	8 - 10 cm	10 - 13 km/hr.	Do not use if soil is crusted, lumpy, or too wet for good mixing action.
Deep tillage cultivator	Not recommended		
Rod weeder			
Harrows			
Chisel plow			
Hoe drills			

POSTEMERGENCE APPLICATION

- Crop must be planted at least 5 cm below the soil surface.
- Do not use in crop underseeded with forage.
- Do not apply more than once per season.
- Do not tank-mix with other pesticides, wetting agents, or surfactants.
- To improve coverage the spray boom may be rotated forward by 45°.
- Activity on weeds may not be noticeable for 7 to 10 days after application.
- SENCOR 480 F may be applied when crop is wet with dew, but weed control may be reduced if there is rainfall within 6 hours after application.
- Temporary (7-10 days) lightening in crop colour and occasional slight reduction in crop height may be observed, especially if frost or abnormally high temperatures occur within 1 to 2 days of application. If frost occurs, allow 4 to 5 days for crop to recover before applying SENCOR 480 F.
- Activity on weeds and crop tolerance may be reduced if SENCOR 480 F is applied later than specified crop stages.
- Allow a 4 to 5 day interval between application of SENCOR 480 F and other pesticides such as wild oat herbicides.

SPRING BARLEY and SPRING WHEAT - WESTERN CANADA

- Apply specified dosage as postemergence broadcast spray in 80 to 100 L of water per hectare.
- Do not graze or feed treated crop to livestock within 30 days of application.
- Do not harvest for grain within 60 days of application.
- Do not use on soils containing less than 3% organic matter. Application made before heavy rainfall or irrigation (3 cm or more) on these low organic matter soils may cause crop injury ranging from leaf burn to stand reduction.
- Use higher rate on barley for the best residual control of chickweed and hemp-nettle or when weed infestation is dense.

SENCOR 480 F IN COMBINATION WITH OTHER HERBICIDES

Refer to the other product label for pertinent recommendations, directions for use, restrictions, precautions, and any additional weeds not specified on this label. Unless prohibited on this or other product labels, apply as a broadcast or band application.

SENCOR 480 F Alone or in Tank-Mixes: Postemergence Application in SPRING BARLEY¹

Weeds controlled	Crop stage	Products	Rates per hectare
Annual broadleaf weeds (refer to other product labels for additional weeds)	2 to 5 leaf (midtillering)	SENCOR 480 F	275 - 550 mL
	3 to 5 leaf (midtillering)	SENCOR 480 F plus MCPA (amine 500) or 2,4-D (amine 500)	275 - 550 mL 850 mL - 1.1 L 850 mL - 1.1 L
	2 to 3 leaf	SENCOR 480 F plus Banvel or Banvel II or Target Liquid	275 - 425 mL 230 mL 230 mL 1.0 - 1.5 L

1. Barley varieties Klondike, Leduc, and Johnston are less tolerant to SENCOR 480 F than other varieties. Some temporary lightening of crop colour may be expected and, occasionally, crop height may be reduced. Apply SENCOR 480 F to these varieties in one of the following ways: 275 - 425 mL/ha of SENCOR 480 F alone; or 275 mL/ha of SENCOR 480 F in tank-mix with MCPA Herbicide. Do not tank-mix SENCOR 480 F with the herbicides Banvel, Target, or 2,4-D on these varieties.

SENCOR 480 F Alone or in Tank-Mixes: Postemergence Application in SPRING WHEAT

Weeds controlled	Crop stage	Products	Rates per hectare
Annual broadleaf weeds (refer to other product labels for additional weeds)	2 to 5 leaf (midtillering)	SENCOR 480 F	275 - 425 mL
	3 to 5 leaf (midtillering)	SENCOR 480 F plus MCPA (amine 500) or 2,4-D (amine 500)	275 - 425 mL 850 mL - 1.1 L 850 mL - 1.1 L
	2 to 4 leaf ¹	SENCOR 480 F plus Banvel or Banvel II	275 - 425 mL 230 mL 230 mL
	2 to 5 leaf	SENCOR 480 F plus Target Liquid	275 - 425 mL 1.0 - 1.5 L

1. Crop tolerance may be reduced at the 4 leaf stage.

DRYLAND WINTER WHEAT - WESTERN CANADA

- **Use on Norstar variety only.**
- Apply specified dosage as postemergence broadcast spray in at least 100 L of water per hectare in late fall (October or November).
- Apply after the crop has commenced tillering and initiated development of secondary roots. This is usually after the 3-leaf stage. To achieve this stage, the wheat would normally need to be planted no later than September 15th. Crop injury may occur if secondary roots have not developed at time of application. Before applying SENCOR 480 F, examine plants to determine if secondary rooting has occurred, even though plants have tillered.
- For best results, apply before weeds are 3 cm tall or have 3 cm rosettes
- Do not apply on irrigated wheat as crop injury may occur.
- Do not tank-mix SENCOR 480 F with other pesticides or liquid fertilizers.
- Activities on weeds may not be noticeable until the following spring when growth starts.
- Do not plant any crop for at least 12 months after application.
- Weed control may be reduced if winter wheat is planted into unworked spring wheat stubble.
- Temporary chlorosis may occur after application of SENCOR 480 F to winter wheat, especially if heavy frost occurs.

SENCOR 480 F Alone: Postemergence Application

Weeds controlled	Crop stage	Products	Rates per hectare
Downy Brome and winter annual broadleaf weeds	Secondary root initiation	SENCOR 480 F	850 mL - 1.12 L

FIELD PEAS - WESTERN CANADA

- Apply specified dosage as postemergence broadcast spray in at least 170 L of water per hectare or as preplant incorporated in at least 100 L of water per hectare.
- Do not apply more than once per season except when following split-application recommendations.
- Do not graze or feed treated crop to livestock within 70 days of application.
- Do not harvest for grain within 70 days of application.
- Do not use on soils containing less than 4% organic matter. Application made before heavy rainfall or irrigation (3 cm or more) on these low organic matter soils may cause crop injury ranging from leaf burn to stand reduction.
- Use higher rate when weed infestation is dense.

SENCOR 480 F IN COMBINATION WITH OTHER HERBICIDES

Refer to the other product label for pertinent recommendations, directions for use, restrictions, and precautions. Unless prohibited on this or other product labels, apply as a broadcast or band application.

SENCOR 480 F Alone or in Tank-Mixes: Postemergence Application¹

Weeds controlled ²	Products	Rates per hectare	Remarks
Annual broadleaf weeds (less than 5 cm in height)	SENCOR 480 F (Single application)	425 - 550 mL in one application	Under certain field or weather conditions a split application of SENCOR 480 F may provide better weed control than a single application. The first application should be made at the cotyledon to 2-leaf stage of the weeds. The second application should be made when a second flush of weeds has emerged or if weeds which were more advanced at the time of the first application are starting to regrow. Allow 7 to 10 days between applications.
	SENCOR 480 F (Split application)	210 - 280 mL per application	
Green smartweed, lady's-thumb, lamb's-quarter, wild mustard, stinkweed, red root pigweed, volunteer non-triazine tolerant canola	SENCOR 480 F plus MCPA Sodium salt (300 g/L)	280 mL 467 mL	

1. Pea vines must be less than 15 cm long at the time of application. Do not apply within 3 days after periods of cool, wet, or cloudy weather as crop injury may occur.
2. Peas may provide poor competition against weed growth. Under conditions of heavy weed pressure or lush weed growth, SENCOR 480 F alone may not provide adequate control due to regrowth of some weeds.

SENCOR 480 F Tank-Mixes: Preplant Incorporated (Spring applications)¹

Weeds controlled	Products	Soil types and rates per hectare	
		COARSE (5-6% organic matter) ²	MEDIUM or FINE (all soils with 6-15% organic matter) ²
Annual grasses and broadleaf weeds	SENCOR 480 F plus Treflan E.C. (480 g/L) or Rival EC	550 mL 1.7 L 2.2 L	550 - 700 mL 2.3 - 3.0 L ³ 2.2 - 2.8 L ³

SENCOR 480 F Tank-Mixes: Preplant Incorporated (Fall applications)¹

Weeds controlled	Products	Soil types and rates per hectare	
		COARSE (4-6% organic matter) ²	MEDIUM or FINE (all soils with 6-15% organic matter) ²
Annual grasses and broadleaf weeds	SENCOR 480 F plus Treflan E.C. (480 g/L)	700 mL 2.3 L	700 - 850 mL 3.0 - 3.4 L ³

REMARKS FOR SENCOR 480 F TANK-MIXES PREPLANT INCORPORATED (SPRING AND FALL APPLICATIONS)

1. Fall application: before freeze up. Spring application: when soil is warm enough to promote germination. Avoid transplanting weed seedlings; seed into a weedfree seedbed using accepted cultural practices.
2. Herbicides rate varies with soil organic matter; the higher the organic matter, the higher the rate of herbicides required.
 - do not use on soils with less than 4% organic matter (fall application) or 5% organic matter (spring application)
 - on soils with 4-6% (fall application) or 5-6% (spring application) organic matter, use the lowest recommended rate
 - on all soils with 6-10% organic matter, select a rate in the range recommended for medium and fine soils
 - on all soils with 10% organic matter or greater, use the highest recommended rate (broadleaf weed control may not be adequate)
3. Use high rate in fields with high weed infestations.

PROCESSING PEAS - WESTERN CANADA

- Apply specified dosage as postemergence broadcast spray in at least 170 L of water per hectare.
- Do not graze or feed treated crop to livestock within 70 days of application.
- Do not harvest within 40 days of application.

- Do not use on soils containing less than 4% organic matter. Application made before heavy rainfall or irrigation (3 cm or more) on these low organic matter soils, may cause crop injury ranging from leaf burn to stand reduction.
- Use higher rate when weed infestation is dense.
- Do not tank-mix with other pesticides, wetting agents or surfactants.

SENCOR 480 F Alone: Postemergence Application¹

Weeds controlled	Products	Rates per hectare
Annual broadleaf weeds (less than 5 cm in height) ²	SENCOR 480 F	425 - 550 mL

1. Pea vines must be less than 15 cm long at the time of application. Do not apply within 3 days after periods of cool, wet, or cloudy weather as crop injury may occur.
2. Peas may provide poor competition against weed growth. Under conditions of heavy weed pressure or lush weed growth, SENCOR 480 F alone may not provide adequate control due to regrowth of some weeds.

CHICKPEAS - WESTERN CANADA

- **Use on Desi and Kabuli types only.**
- Apply specified dosage as postemergence broadcast spray in at least 170 L of water per hectare.
- Do not apply more than once per season.
- Do not graze or feed treated crop to livestock within 70 days of application.
- Do not harvest within 40 days of application.
- Do not use on soils containing less than 4% organic matter. Application made before heavy rainfall or irrigation (3 cm or more) on these low organic matter soils, may cause crop injury ranging from leaf burn to stand reduction.
- Do not tank-mix with other pesticides, wetting agents or surfactants.

SENCOR 480 F Alone: Postemergence Application¹

Weeds suppressed	Products	Rates per hectare
Annual broadleaf weeds (less than 5 cm in height) ²	SENCOR 480 F	412 mL

1. Apply when pea vines are at the 1-3 above-ground node stage (maximum height of 6 cm). **NOTE: APPLICATION PAST THE RECOMMENDED GROWTH STAGE MAY CAUSE SEVERE CROP INJURY.** Do not apply within 3 days after periods of cool, wet, or cloudy weather as crop injury may occur.
2. Chickpeas may provide poor competition against weed growth. Under conditions of heavy weed pressure or lush weed growth, SENCOR 480 F alone may not provide adequate suppression due to regrowth of some weeds.

LENTILS - WESTERN CANADA

- Apply specified dosage as postemergence broadcast spray in at least 170 L of water per hectare or as preplant incorporated in at least 100 L of water per hectare.
- Do not apply more than once per season except when following split-application recommendations.
- Do not graze or feed treated crop to livestock within 70 days of application.
- Do not harvest for grain within 70 days of application.
- Do not use on soils containing less than 4% organic matter. Application made before heavy rainfall or irrigation (3 cm or more) on these low organic matter soils may cause crop injury ranging from leaf burn to stand reduction.
- Use higher rate when weed infestation is dense.

SENCOR 480 F Alone: Postemergence Application¹

Weeds suppressed	Products	Rates per hectare	Remarks
Annual broadleaf weeds (less than 5 cm in height) ²	SENCOR 480 F (Single application)	425 mL in one application	Under certain field or weather conditions a split application of SENCOR 480 F may provide better weed suppression than a single application.
	SENCOR 480 F (Split application)	210 - 280 mL per application	The first application should be made at the cotyledon to 2-leaf stage of the weeds. The second application should be made when a second flush of weeds has emerged or if weeds, which were more advanced at the time of the first application, are starting to regrow. Allow 7 to 10 days between applications.

1. Lentil vines must be less than 15 cm long or in the 3 to 5-node stage at the time of application. Do not apply within 3 days after periods of cool, wet, or cloudy weather as crop injury may occur.
2. Lentils may provide poor competition against weed growth. Under conditions of heavy weed pressure or lush weed growth, SENCOR 480 F alone may not provide adequate suppression due to regrowth of some weeds.

SENCOR 480 F IN COMBINATION WITH OTHER HERBICIDES

Refer to the other product label for pertinent recommendations, directions for use, restrictions, and precautions. Unless prohibited on this or other product labels, apply as a broadcast or band application.

SENCOR 480 F Tank-Mix: Preplant Incorporated (Fall applications - prior to soil freeze-up)

Weeds controlled	Products	Soil types ¹ and rates per hectare	
		COARSE (4-6% organic matter) ²	MEDIUM or FINE (all soils with 6-15% organic matter) ²
Annual grass and broadleaf weeds	SENCOR 480 F plus Treflan E.C. (480 g/L)	700 mL 2.3 L	700 - 850 mL 3.0 - 3.4 L ³

1. Do not use on muck soils
 2. SENCOR 480 F rate varies with the soil organic matter; the higher the organic matter, the higher the rate of SENCOR 480 F required.
 - do not use on soils with less than 4% organic matter
 - on soils with 4-6% organic matter, use the lowest recommended rate
 - on all soils with 6-10% organic matter, select a rate in the range recommended for medium and fine soils
 - on all soils with 10% organic matter or greater, use the highest recommended rate (broadleaf weed control may not be adequate)
 3. Use high rate of Treflan E.C. Herbicide if wild oat infestation is heavy.
- Spring tillage following fall application of SENCOR 480 F plus Treflan E.C. should be done when the soil is warm enough to promote germination. Avoid transplanting weed seedlings; seed into a weedfree seedbed using acceptable cultural practices.

SOYBEANS - WESTERN CANADA

- Apply specified dosage as preplant incorporated in at least 100 L of water per hectare.
- VARIETIES: Do not use SENCOR 480 F on AC Brant, Apache, Baron, OAC Eramosa, Maple Amber, Maple Ridge, IA 1003 or S-240. Consult your Bayer representative, chemical dealer, or your seed supplier for information on the tolerance of soybean varieties, prior to SENCOR 480 F use.
- Seedling disease, cold weather, deep planting, excessive moisture, high soil pH (above 7.5), high salt concentration, or drought may weaken soybean seedlings and increase the possibility of damage from SENCOR 480 F and Treflan E.C. Herbicide. Under these conditions, delayed crop development or reduced yield may result.

SENCOR 480 F IN COMBINATION WITH OTHER HERBICIDES

Refer to the other product label for pertinent recommendations, directions for use, restrictions, precautions and any additional weeds not specified on this label. Unless prohibited on this or other product labels, apply as a broadcast or band application.

SENCOR 480 F Tank-Mixes Preplant Incorporated (Spring application)

Weeds controlled	Products	Soil types and rates per hectare	
		COARSE (2-6% organic matter) ¹	MEDIUM or FINE (all soils with 6-15% organic matter) ¹
Annual grasses and broadleaf weeds	SENCOR 480 F plus Treflan E.C. (480 g/L)	425 - 550 mL 1.7 L	550 - 850 mL 2.3 - 3.0 L ²

- SENCOR 480 F rate varies with the soil organic matter; the higher the organic matter the higher the rate of SENCOR 480 F required.
 - do not use on soils with less than 2% organic matter
 - on soils with 2-3% organic matter use 425 mL/ha
 - on soils with 3-6% organic matter use 550 mL/ha
 - on all soils with 6-10% organic matter, select a rate in the range recommended for medium and fine soils
 - on all soils with 10% organic matter or greater, use the highest recommended rate (broadleaf weed control may not be adequate)
- Use high rate of Treflan E.C. if wild oat infestation is heavy.

FABA BEANS - WESTERN CANADA

- Apply specified dosage as preplant incorporated in at least 100 L of water per hectare.
- Do not use on soils with high salt content, which can be determined using a conductivity test at a provincial laboratory. Do not use when the conductivity reading is higher than 1 mS/cm using the 1 to 1 method or 2 mS/cm using the standard paste method.

SENCOR 480 F IN COMBINATION WITH OTHER HERBICIDES

Refer to the other product label for pertinent recommendations, directions for use, restrictions, precautions, and any additional weeds not specified on this label. Unless prohibited on this or other product labels, apply as a broadcast or band application.

SENCOR 480 F Tank-Mixes Preplant Incorporated (Spring applications)¹

Weeds controlled	Products	Soil types and rates per hectare	
		COARSE (2-6% organic matter) ²	MEDIUM or FINE (all soils with 6-15% organic matter) ²
Annual grasses and broadleaf weeds	SENCOR 480 F plus Treflan E.C. (480 g/L)	425 - 550 mL 1.7 L	550 - 850 mL 2.3 L

SENCOR 480 F Tank-Mixes Preplant Incorporated (Fall applications)¹

Weeds controlled	Products	Soil types and rates per hectare	
		COARSE (2-6% organic matter) ²	MEDIUM or FINE (all soils with 6-15% organic matter) ²
Annual grasses and broadleaf weeds	SENCOR 480 F plus Treflan E.C. (480 g/L)	550 - 700 mL 2.3 L	700 - 850 mL 3.0 L

REMARKS FOR SENCOR 480 F TANK-MIXES PREPLANT INCORPORATED (SPRING AND FALL APPLICATIONS)

- Fall application: before freeze up. Spring application: when soil is warm enough to promote germination. Avoid transplanting weed seedlings; seed into a weedfree seedbed using accepted cultural practices.
- Herbicides' rate varies with the soil organic matter; the higher the organic matter, the higher the rate of herbicides required.
 - do not use on soils with less than 2% organic matter
 - on soils with 2-3% organic matter, use the lowest recommended rate

- on soil with 3-6% organic matter, use 550 mL/ha in spring application or 700 mL/ha in fall application
- on all soils with 6-10% organic matter, select a rate in the range recommended for medium and fine soils
- on all soils with 10% organic matter or greater, use the highest recommended rate (broadleaf weed control may not be adequate)

POTATOES

MANITOBA, SASKATCHEWAN, ALBERTA AND INTERIOR BRITISH COLUMBIA

- Apply specified dosage as postemergence broadcast spray or preplant incorporated in 100 to 300 L of water per hectare.
- Do not use on the varieties Belleisle or Tobique.
- Consult your chemical dealer, Bayer representative or your seed supplier for information on the tolerance of newly released potato varieties, prior to SENCOR 480 F use.
- Do not harvest within 60 days of application.
- FOR ADDITIONAL USES IN WESTERN CANADA UNDER IRRIGATION AND IN COASTAL BRITISH COLUMBIA, SEE THE EASTERN CANADA POTATO SECTION OF THIS LABEL.

SENCOR 480 F IN COMBINATION WITH OTHER HERBICIDES

Refer to the other product label for pertinent recommendations, directions for use, restrictions, precautions, and any additional weeds not specified on this label. Unless prohibited on this or other product labels, apply as a broadcast or band application.

SENCOR 480 F Alone: Postemergence Application¹

Weeds controlled	Product	Rate per hectare
Annual broadleaf weeds less than 4 cm in height	SENCOR 480 F	550 mL

1. Not all potato varieties have been tested for tolerance to SENCOR 480 F. Some potato varieties (such as early maturing, red-skinned, Atlantic, Eramosa) can be sensitive to and injured by an application of SENCOR 480 F (such as yellowing/necrosis of leaf veins or leaf margins, stunting, and possible delay in harvest). First use of SENCOR 480 F on a potato variety must be limited to a small test area to ensure risk or level of potential injury is acceptable to the grower prior to adoption as a general field practice. Sensitivity to or injury after a postemergent application of SENCOR 480 F is typically visible in the test area within 5 days after application.

SENCOR 480 F Tank-Mix: Preplant Incorporated¹

Weeds controlled	Products	Rates per hectare
Annual grasses and broadleaf weeds	SENCOR 480 F plus Eptam 8-E	550 - 850 mL 4.25 - 5.5 L

1. Do not use on soils with greater than 7% organic matter.

POTATOES - SPRINKLER IRRIGATION APPLICATION

MANITOBA, SASKATCHEWAN, ALBERTA AND INTERIOR BRITISH COLUMBIA

The herbicides SENCOR 480 F and Eptam 8-E are recommended for application preemergence through sprinkler irrigation equipment to potatoes as directed on this label. Refer to the crop sections of this label for recommended rates, weeds controlled or suppressed, restrictions and special precautions.

Apply this product only through sprinkler (including centre pivot, lateral move, or solid set) irrigation systems, equipped with low pressure nozzles. Do not apply this product through any other type of irrigation system. Crop injury, lack of effectiveness, or illegal pesticide residues in the crop can result from nonuniform distribution of treated water.

CALIBRATION: (Centre Pivot and Self-Propelled Lateral Move Systems)

Sprinkler irrigation systems must deliver a uniform application of water and be accurately calibrated for application of SENCOR 480 F. Greater accuracy in calibration (and distribution) will be achieved by injecting a larger volume of

more dilute mixture of product and water per hour. Follow the steps below to calibrate centre pivot and lateral move systems:

1. Determine number of minutes required to make one complete revolution while applying 6 to 19 mm of water per hectare.
2. With the system at operating pressure determine the exact number of minutes required to inject 3.8 litres of water.
3. Divide the time required for one revolution (step 1) by the time required to inject 3.8 litres (step 2) and multiply by 3.8. This gives total litres of product-water mixture to be added to nurse tank.
4. Add required amount of water to nurse tank and start the agitation system. Then add sufficient SENCOR 480 F at the recommended rate (See RECOMMENDED BROADCAST APPLICATION) to the nurse tank.

EXAMPLE: If 20 hours (1200 minutes) were required for one revolution and if 2 minutes were required to inject 3.8 litres then a total of 2280 litres of product-water mixture are required $[(1200 \div 2) \times 3.8 = 2280]$; to treat 55 ha at 1.1 L/ha, 60.5 litres of SENCOR 480 F is required.

Do not connect an irrigation system used for pesticide application to a public water system unless the pesticide label-prescribed safety devices for public water system are in place.

A person knowledgeable of the irrigation system and responsible for its operation, or under the supervision of the responsible person, shall shut the system down and make necessary adjustments should the need arise.

The system must contain a functional check valve, vacuum relief valve, and low pressure drain appropriately located on the irrigation pipeline to prevent water source contamination from backflow.

The pesticide injection pipeline must contain a functional, automatic, quick-closing check valve to prevent the flow of fluid back toward the injection pump.

The pesticide injection pipeline must also contain a functional, normally closed solenoid-operated valve located on the intake side of the injection pump (e.g. diaphragm pump) effectively designed and constructed of materials that are compatible with pesticides and capable of being fitted with a system interlock.

Do not apply when wind speed favours drift beyond the area intended for treatment.

Maintain continuous agitation in the injection nurse tanks during the herbicide application, sufficient to keep the herbicide in suspension.

Application of more than the quantity of irrigation water recommended on this label may result in decreased product performance by removing the chemical from the zone of effectiveness. Where sprinkler distribution patterns do not overlap sufficiently unacceptable weed control may result. Where sprinkler distribution patterns overlap excessively, crop injury may result. Allow sufficient time for pesticide to be flushed through all lines and all nozzles before turning off irrigation water. To ensure that all lines are flushed and free of remaining pesticide, an indicator dye may be injected into the lines to mark the end of the application period.

Use a minimum of 1 part water to 1 part herbicide for injection. The use of a larger volume of water will ensure greater accuracy and more uniform distribution. The runoff water (tail water) from sprinkler irrigation should be recirculated.

SENCOR 480 F PLUS EPTAM 8-E TANK-MIX¹: PREEMERGENCE THROUGH SPRINKLER IRRIGATION SYSTEM

Weeds controlled	Products	Rates per hectare
Annual broadleaf weeds	SENCOR 480 F plus Eptam 8-E	550 mL - 1.1 L 4.25 - 5.5 L
REMARKS: PREEMERGENCE IN SPRINKLER IRRIGATION: Apply specified dosage in 8 to 19 mm of water per hectare as a continuous injection in centre pivot systems, or in the last 15 to 30 minutes of set in permanent solid set sprinkler systems or self-propelled wheel move systems. On sandy soil apply in 8 to 12 mm of water and use the lower rate of SENCOR 480 F and Eptam 8-E. Apply preemergence to crop and weeds. Use the higher rate for control of grass weeds or when broadleaf weeds are dense. Do not harvest within 60 days of application.		

1. Do not use on the varieties Belleisle or Tobique.

ALFALFA - (Grown Under Irrigation) - ALBERTA

- Apply as a broadcast fall application to dormant established crops of alfalfa grown under irrigation.
- Apply specified dosage in 80 to 100 L of water per hectare.

SENCOR 480 F Alone: Fall Application

Crop	Rates per hectare	Remarks
Alfalfa (Alberta only)	2.25 L	Treat only dormant established crops of alfalfa after growth ceases in the fall. Injury may occur to alfalfa if SENCOR 480 F is applied earlier than 18 months after seeding. Allow at least 24 months from application of SENCOR 480 F to the seeding of other crops other than potatoes.

ASPARAGUS (established) - WESTERN CANADA

- SEE ASPARAGUS RECOMMENDATIONS IN THE EASTERN CANADA SECTION OF THIS LABEL.

SHELTERBELTS - WESTERN CANADA

- Apply specified dosage as preplant incorporated broadcast spray in at least 100 L to 225 L of water per hectare.
- Do not apply more than once per season.
- Do not use on soils with less than 5% organic matter.
- On soils with 10% organic matter and higher, broadleaf weed control will not be adequate.
- Seedling disease, cold weather, deep planting, excessive moisture, high soil pH (above 7.5), high salt concentration, or drought may weaken seedlings and increase the possibility of damage from the herbicides SENCOR 480 F and Treflan E.C.

SENCOR 480 F IN COMBINATION WITH OTHER HERBICIDES

Refer to the other product label for pertinent recommendations, directions for use, restrictions, and precautions. Unless prohibited on this or other product labels, apply as a broadcast application.

SENCOR 480 F Tank-Mix: Preplant Incorporated (Spring Application)

Crop	Products	Rates per hectare
Shelterbelt Species: Green ash Caragana Choke cherry Villosa lilac Poplar Saskatoon berry Sea-buckthorn	SENCOR 480 F plus Treflan E.C. (480 g/L)	600 mL 5.2 L

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