(Container Label)

GROUP 4 6 HERBICIDES

# IPCO<sup>®</sup> LOGIC<sup>®</sup> M

### Contains Bromoxynil and MCPA

EMULSIFIABLE CONCENTRATE

For use in WHEAT (spring, durum & winter), BARLEY, OATS, FLAX (including low linolenic varieties), CORN (field and sweet), FALL RYE, CANARY SEED (for seed production), ANNUAL CANARYGRASS, SEEDLING GRASSES, AND ESTABLISHED GRASSES

AGRICULTURAL READ THE LABEL AND BOOKLET BEFORE USING KEEP OUT OF REACH OF CHILDREN

ACTIVE INGREDIENT: Bromoxynil (present as esters)......225 g a.e./L MCPA (present as 2-ethylhexyl ester)....225 g a.e./L

REGISTRATION NO. 28109 PEST CONTROL PRODUCTS ACT

NET CONTENTS 10 litres TREATS 8 HECTARES



Interprovincial Cooperative Limited, P.O. Box 1050, Saskatoon, Saskatchewan, S7K 3M9 1-204-233-3461

#### **PRECAUTIONS:**

#### KEEP OUT OF REACH OF CHILDREN.

Avoid contact with skin, eyes and clothing. Store the container tightly closed away from seeds, fertilizer, plants and foodstuffs.

Wash concentrate from skin or eyes immediately.

Avoid working in spray mist.

After use wash hands and other exposed skin.

Do not use in residential areas, which are defined as sites where bystanders may be present during or after spraying, including homes, schools, parks, playgrounds, playing fields and public buildings. Apply only when the potential for drift to areas of human habitation or areas of human activity such as houses, cottages, schools, and recreational areas is minimal. Take into consideration wind speed, wind direction, temperature inversions, application equipment, and sprayer settings.

**ENVIRONMENTAL PRECAUTIONS:** Refer to the attached booklet for complete environmental hazards.

#### **PROTECTIVE CLOTHING AND EQUIPMENT:**

Wear a chemical-resistant apron during mixing/loading activities.

**Ground applications**: Wear coveralls over a long-sleeved shirt, long pants, chemical-resistant gloves, socks and shoes during mixing, loading, clean-up and repair. Wear a long-sleeved shirt and long pants, chemical resistant gloves, and socks plus shoes during applications. Gloves are not required during application within a closed cab.

Aerial applications: the field crew and the mixer/loaders: Wear coveralls over a long-sleeved shirt, long pants, chemical-resistant gloves, socks and shoes during mixing, loading, clean-up and repair.

**Aerial applicators**: Wear a long-sleeved shirt, long pants, socks and shoes during application. Gloves are not required during application within a closed cockpit. Do not allow the pilot to mix chemicals to be loaded onto the aircraft.

DO NOT enter or allow worker entry into treated areas during the restricted-entry intervals (REIs) specified in the following table:

CROP	POST- APPLICATION ACTIVITY	REI
	Irrigation, handset	5 days
Sweet Corn	Harvest, hand	20 days
	All other activities	24 hours

DO NOT enter or allow worker entry into treated areas of other crops within 24 hours of application, unless otherwise indicated.

DO NOT apply this product in a way that this product will contact workers or other persons, either directly or through drift. Only handlers wearing personal protective equipment may be in the area being treated during application.

Apply only when the potential for drift to areas of human habitation or areas of human activity such as houses, cottages, schools, and recreational areas is minimal. Take into consideration wind speed, wind direction, temperature inversions, application equipment, and sprayer settings.

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

clean clothing.

**PRE-HARVEST INTERVALS:** Do not use treated crops for grazing of livestock or green feed until 30 days after application of LOGIC M. Do not cut treated crops for forage until 30 days after application of LOGIC M. Withdraw meat animals from treated fields at least 3 days before slaughter. For hand-harvesting of corn (field and sweet), re-entry is not permitted until 15 days after application. As such, a preharvest interval (PHI) of 15 days after application is required.

#### FIRST AID:

Remove person from contaminated area, remove contaminated clothing. Keep patient warm, comfortable, at rest. 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 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.

**If swallowed,** call a poison control centre or doctor IMMEDIATELY for treatment advice. Do not induce vomiting unless told to do so by a poison control centre or doctor. Do not give **any** liquid to the person. Do not give anything by mouth to an unconscious person.

#### TOXICOLOGICAL INFORMATION:

This product contains an aromatic hydrocarbon solvent. Vomiting may cause aspiration pneumonia. High concentrations of MCPA may cause severe irritation to the eyes. Symptoms of overexposure to MCPA could include slurred speech, twitching, jerking and spasms, drooling, low blood pressure and unconsciousness. Treat symptomatically.

#### **STORAGE CONDITIONS:**

This LOGIC M formulation will solidify at temperatures below  $-20^{\circ}$  C but will become usable at temperatures above  $0^{\circ}$  C. Insecticides and fungicides should be segregated from herbicides so as to prevent the possibility of cross-contamination.

#### **DISPOSAL:**

#### **RECYCLABLE CONTAINER DISPOSAL:**

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.

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

**REFILLABLE CONTAINER DISPOSAL:** For disposal, this 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 reuse this container for any other purpose.

#### **DISPOSAL OF UNUSED, UNWANTED PRODUCT:**

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

#### NOTICE TO USER:

This pest control product is to be used only in accordance with the directions on the label. It is an offence under the *Pest Control Products Act* to use this product in a way that is inconsistent with the directions on the label.

## **IPCO**<sup>®</sup>



#### LIQUID HERBICIDE Contains Bromoxynil and MCPA

EMULSIFIABLE CONCENTRATE

For use in WHEAT (spring, durum & winter), BARLEY, OATS, FLAX (including low linolenic varieties), CORN (field and sweet), FALL RYE, CANARY SEED (for seed), ANNUAL CANARYGRASS, SEEDLING GRASSES, AND ESTABLISHED GRASSES

AGRICULTURAL READ THE LABEL AND BOOKLET BEFORE USING KEEP OUT OF REACH OF CHILDREN

ACTIVE INGREDIENT: Bromoxynil (present as esters)......225 g a.e./L MCPA (present as 2-ethylhexyl ester)....225 g a.e./L

REGISTRATION NO. 28109 PEST CONTROL PRODUCTS ACT

NET CONTENTS 10 litres TREATS 8 HECTARES



Interprovincial Cooperative Limited, P.O. Box 1050, Saskatoon, Saskatchewan, S7K 3M9 1-204-233-3461

RC 547-0218

#### **PRECAUTIONS:**

#### KEEP OUT OF REACH OF CHILDREN.

Avoid contact with skin, eyes and clothing.

Store the container tightly closed away from seeds, fertilizer, plants and foodstuffs.

Wash concentrate from skin or eyes immediately.

Avoid working in spray mist.

After use wash hands and other exposed skin.

Do not use in residential areas, which are defined as sites where bystanders may be present during or after spraying, including homes, schools, parks, playgrounds, playing fields and public buildings. Apply only when the potential for drift to areas of human habitation or areas of human activity such as houses, cottages, schools, and recreational areas is minimal. Take into consideration wind speed, wind direction, temperature inversions, application equipment, and sprayer settings.

#### **ENVIRONMENTAL PRECAUTIONS:**

Toxic to aquatic organisms and non-target terrestrial plants. Observe buffer zones specified under DIRECTIONS FOR USE. As this product is not registered for the control of pests in aquatic systems, DO NOT use to control aquatic pests.

DO NOT contaminate irrigation or drinking water supplies or aquatic habitats by cleaning of equipment or disposal of wastes.

#### Surface runoff

To reduce runoff from treated areas into aquatic habitats avoid application to areas with a moderate to steep slope, compacted soil, or clay.

Avoid applying this product when heavy rain is forecast.

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

#### Leaching

The use of this chemical may result in contamination of groundwater particularly in areas where soils are permeable (e.g. sand, loamy sand and sandy loam soils) and/or the depth to the water table is shallow.

#### **PROTECTIVE CLOTHING AND EQUIPMENT:**

Wear a chemical-resistant apron during mixing/loading activities.

**Ground applications**: Wear coveralls over a long-sleeved shirt, long pants, chemical-resistant gloves, socks and shoes during mixing, loading, clean-up and repair. Wear a long-sleeved shirt and long pants, chemical resistant gloves, and socks plus shoes during applications. Gloves are not required during application within a closed cab.

Aerial applications: the field crew and the mixer/loaders: Wear coveralls over a long-sleeved shirt, long pants, chemical-resistant gloves, socks and shoes during mixing, loading, clean-up and repair.

Aerial applicators: Wear a long-sleeved shirt, long pants, socks and shoes during application. Gloves are not required during application within a closed cockpit. Do not allow the pilot to mix chemicals to be loaded onto the aircraft.

Apply only when the potential for drift to areas of human habitation or areas of human activity such as houses, cottages, schools, and recreational areas is minimal. Take into consideration wind speed, wind direction, temperature inversions, application equipment, and sprayer settings.

DO NOT enter or allow worker entry into treated areas during the restricted-entry intervals (REIs) specified in the following table:

CROP	POST- APPLICATION ACTIVITY	REI	
	Irrigation, handset	5 days	
Sweet Corn	Harvest, hand	20 days	
	All other activities	24 hours	

DO NOT enter or allow worker entry into treated areas of other crops within 24 hours of application, unless otherwise indicated.

DO NOT apply this product in a way that this product will contact workers or other persons, either directly or through drift. Only handlers wearing personal protective equipment may be in the area being treated during application.

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

Users should remove clothing immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.

**PRE-HARVEST INTERVALS:** Do not use treated crops for grazing of livestock or green feed until 30 days after application of LOGIC M. Do not cut treated crops for forage until 30 days after application of LOGIC M. Withdraw meat animals from treated fields at least 3 days before slaughter. For hand-harvesting of corn (field and sweet), re-entry is not permitted until 15 days after application. As such, a preharvest interval (PHI) of 15 days after application is required.

#### FIRST AID:

Remove person from contaminated area, remove contaminated clothing. Keep patient warm, comfortable, at rest. 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 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.

**If swallowed,** call a poison control centre or doctor IMMEDIATELY for treatment advice. Do not induce vomiting unless told to do so by a poison control centre or doctor. Do not give **any** liquid to the person. Do not give anything by mouth to an unconscious person.

#### TOXICOLOGICAL INFORMATION:

This product contains an aromatic hydrocarbon solvent. Vomiting may cause aspiration pneumonia. High concentrations of MCPA may cause severe irritation to the eyes. Symptoms of overexposure to MCPA could include slurred speech, twitching, jerking and spasms, drooling, low blood pressure and unconsciousness. Treat symptomatically.

#### **STORAGE CONDITIONS:**

This LOGIC M formulation will solidify at temperatures below  $-20^{\circ}$  C but will become usable at temperatures above  $0^{\circ}$  C. Insecticides and fungicides should be segregated from herbicides so as to prevent the possibility of cross-contamination.

#### DISPOSAL: RECYCLABLE CONTAINER DISPOSAL:

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:

- 3. Triple- or pressure-rinse the empty container. Add the rinsings to the spray mixture in the tank.
- 4. 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.

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

**REFILLABLE CONTAINER DISPOSAL:** For disposal, this 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 reuse this container for any other purpose.

#### **DISPOSAL OF UNUSED, UNWANTED PRODUCT:**

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

#### NOTICE TO USER:

This pest control product is to be used only in accordance with the directions on the label. It is an offence under the *Pest Control Products Act* to use this product in a way that is inconsistent with the directions on the label.

#### **DIRECTIONS FOR USE:**

**TIMING:** For best results, spray when weeds are in the seedling stage. Apply in good growing conditions. Application **must** be made before the crop shields the weeds. Do not apply more than once per season.

**SPRAYER:** Wash the tank and clean all filters, screens and tips. Select nozzle tips to apply the recommended volume per hectare. Flood jet type tips are not recommended. Adjust boom height to ensure uniform coverage of the weeds. For ground applications, spray at 5 - 10 Kph. Ensure that all tips are in good condition and spraying the same volume.

**MIXING**: Half fill the tank with clean water. Add the required amount of LOGIC M and agitate thoroughly. Fill the tank and agitate again before use.

**RAINFAST INFORMATION:** Rainfall within 1 hour of application of LOGIC M with some tank mix partners may reduce effectiveness. For tank mixes, consult the label(s) of the tank mix partner(s) and observe the longest (most restrictive) rainfast period of the products involved in the tank mix.

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

#### FOR AERIAL APPLICATION (wheat, barley and oats only):

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

#### **Aerial Application Instructions**

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

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

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

#### **Use Precautions**

Apply only when meteorological conditions at the treatment site allow for complete and even crop coverage. Apply only under conditions of good practice specific to aerial application as outlined in the National Aerial Pesticide Application Manual, developed by the Federal/Provincial/Territorial Committee on Pest Management and Pesticides.

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

Coarse sprays are less likely to drift, therefore, avoid combinations of pressure and nozzle type that will result in fine particles (mist). Do not apply during periods of dead calm or when wind velocity and direction pose a risk of spray drift. Do not spray when the wind is blowing towards

a nearby sensitive crop, garden, terrestrial habitat (such as shelter-belt) or aquatic habitat.

#### **Operator Precautions**

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

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

The field crew and the mixer/loaders: Wear coveralls over a long-sleeved shirt, long pants, chemical-resistant gloves, goggles or face shield, socks and shoes during mixing, loading, clean-up and repair.

Aerial applicators: Wear a long-sleeved shirt, long pants, socks and shoes during application. Gloves are not required during application within a closed cockpit. No human flaggers are permitted. Follow the more stringent label precautions in cases where the operator precautions exceed the generic label recommendations on the existing ground boom label.

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

#### **Product Specific Precautions**

Read and understand the entire label before opening this product. If you have questions, call Interprovincial Cooperative Limited at 1-204-233-3461 or obtain technical advice from the distributor or your provincial agricultural representative. Application of this specific product must meet and/or conform to the following:

- 1. Weeds must be treated at the *recommended* growth stages while actively growing. Weed stage should be checked prior to spraying.
- 2. LOGIC M must be applied in volume rates of not *less than* 20 L/ha. For best results when there is a heavy crop canopy, or when the majority of the weeds are cow cockle, smartweed, hempnettle, pigweed or Canada thistle a volume rate of 40 L/ha is recommended.
- 3. The 1.25 L/ha rate of LOGIC M must *not* be reduced.
- 4. Effective swath width (as determined by boom width and spray pattern overlaps) must be accurately maintained. Conduct tests to determine the effective swath width of *your* aircraft. (For example, the effective swath width may be less than one-half of the overall swath.)
- 5. Flat-fan or hollow cone nozzles are recommended.
- 6. Nozzles should be positioned to compensate for prop-wash and wing-tip vortex effects. Nozzles should not be placed within 1 m of wing tips.
- 7. Orient nozzles (measured from direction of flight) to achieve desired minimum droplet density with maximum coverage.

<b>VOLUME RATE</b>	NOZZLE TYPE	<b>NOZZLE ORIENTATION</b>		
20 L/ha	Flat Fan	90°		
	Hollow Cone	135°		
30 L/ha	Flat Fan	$90^\circ - 135^\circ$		
	Hollow Cone	135°		
40 L/ha	Flat Fan	135°		
	Hollow Cone	$135^\circ - 180^\circ$		

- 8. Efficient track-marking is essential ("Automatic Flagmen" markers should only be used as a back-up system).
- 9. Avoid spraying in temperatures greater than 25°C.
- 10. Spray only when wind is blowing away from a sensitive crop.
- 11. Do not spray in a dead calm and when wind speed exceeds 16 Kph.

#### **Buffer Zones to Protect Sensitive Habitat**

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

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

Method of			Buffer Zones (metres) Required for the Protection of:				
Application			Freshwater Habitat of Depths:		Estuarine/Marine Habitats of Depths:		Terrestrial Habitat
			Less than 1 m	Greater than 1 m	Less than 1 m	Greater than 1 m	
Field Sprayer*	All crops		1	1	1	1	4
Aerial	Oats	Fixed wing	15	2	1	1	60
		Rotary wing	15	1	1	1	50
	Barley and wheat	Fixed wing	20	5	1	1	60
		Rotary wing	20	3	1	1	50

When a tank mixture is used, consult the labels of the tank-mix partners and observe the largest (most restrictive) buffer zone of the products involved in the tank mixture.

\*For field sprayer application, buffer zones can be reduced with the use of drift reducing spray shields. When using a spray boom fitted with a full shield (shroud, curtain) that extends to the crop canopy, the labelled buffer zone can be reduced by 70%. When using a spray boom where individual nozzles are fitted with cone-shaped shields that are no more than 30 cm above the crop canopy, the labelled buffer zone can be reduced by 30%.

#### HERBICIDE RESISTANCE MANAGEMENT:

For resistance management, please note that LOGIC M is a Group 4 and 6 herbicide. Any weed population may contain or develop plants naturally resistant to LOGIC M and other Group 4 and 6 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 LOGIC M or other Group 4 and 6 herbicides 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.
- Herbicide use should be based on an IPM program that includes scouting, historical information related to herbicide use and crop rotation, and considers tillage (or other mechanical), cultural, biological and other chemical control practices.
- Monitor treated weed populations for resistance development.
- Prevent movement of resistant weed seeds to other fields by cleaning harvesting and tillage equipment and planting clean seed.
- 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 Interprovincial Cooperative Ltd. at 1-204-233-3461.

#### WHEAT (Spring, Durum & Winter) (not underseeded to legumes)

#### LOGIC M USED ALONE:

**SPRAY VOLUME & PRESSURE:** Apply in NOT LESS than 50 litres of water per hectare at a pressure of 275 kPa.

**TIMING:** Spring and durum wheat may be treated from the 2-leaf until the early flag leaf stage. Winter wheat may be treated from the 2 to 4-leaf stage in the fall or from the time growth commences to the early flag leaf stage in the spring.

#### APPLICATION RATE: 1.25 L/ha

#### Seedlings up to 4-leaf stage Green smartweed Pale smartweed Lady's-thumb Cow cockle\* Redroot pigweed Flixweed Bluebur Shepherd's-purse Kochia\*\* Russian thistle\*\* Scentless chamomile\*\*\* Volunteer sunflower Volunteer rapeseed (including Canola) Night flowering catchfly Cocklebur Velvetleaf\*\*\*\* Ball mustard American nightshade

#### WEEDS CONTROLLED

Seedlings up to 6-leaf stage Wild tomato Seedlings up to 8-leaf stage Wild buckwheat Tartary buckwheat Common buckwheat Stinkweed Wild mustard Wormseed mustard Lamb's-quarters Common ragweed Common groundsel Perennials: Top-growth checked Canada thistle Perennial sow-thistle

\*In normal conditions cow cockle will be controlled up to the 4-leaf stage. Plants beyond this stage are unlikely to be controlled.
\*\*Spray before plants are 5 cm high.
\*\*\*Spring annuals only.
\*\*\*Spray before plants are 8 cm high.

WHEAT (CONTD)

#### LOGIC M + MCPA

**SPRAY VOLUME & PRESSURE:** Apply in NOT LESS than 50 litres of water per hectare at a pressure of 275 kPa.

**TIMING:** Spring and durum wheat may be treated from the 2-leaf until the early flag leaf stage.

**APPLICATION RATE:** LOGIC M at 1.25 L/ha tank-mixed with 275 g active ingredient MCPA per hectare.

**NOTE:** MCPA-K is preferred for hempnettle although other formulations may be used. Refer to the MCPA label for precautions, buffer zones, grazing instructions and limitations. Add MCPA to the spray tank first, agitate, then add LOGIC M.

#### WEEDS CONTROLLED

As listed for LOGIC M alone plus these additional weeds.

Seedlings up to 4-leaf stageSeedlings up to 8-leaf stageHempnettle\*Volunteer rapeseed (including Canola)\*Hempnettle is unlikely to be controlled beyond the 4-leaf stage. Plants emerging after application, which is often the case on peat- type soils, will not be controlled.

WHEAT (CONTD)

#### LOGIC M + AVENGE 200-C\* (SPRING WHEAT AND DURUM WHEAT)

\*AVENGE is a registered trademark of Amvac Chemical Corporation.

Follow all precautions, limitations, buffer zones, grazing instructions and timing recommendations on the AVENGE 200-C label.

**SPRAY VOLUME & PRESSURE:** Apply in 100 litres of water per hectare at a pressure of 275 kPa.

**TIMING:** Spring wheat and durum wheat may be treated from the 2 to 6-leaf stage. Wild oats must be in the 3 to 5-leaf stage and broadleaf weeds in the seedling stage as indicated.

**APPLICATION RATE:** LOGIC M at 1.25 L/ha tank-mixed with AVENGE 200-C at 3.5 – 4.25 L/ha **OR** LOGIC M at 1.25 L/ha plus 275 g active ingredient MCPA ester per hectare tank-mixed with AVENGE 200-C at 3.5 – 4.25 L/ha.

**NOTE:** LOGIC M should be added to the spray tank first, agitated, then add AVENGE 200-C. AVENGE 200-C can only be applied to certain varieties of spring wheat and durum wheat. Refer to the AVENGE 200-C label.

#### WEEDS CONTROLLED

As listed for LOGIC M used alone or in combination with MCPA plus wild oats.

#### LOGIC M + LIQUID ACHIEVE\* SC HERBICIDE (Spring and Durum Wheat)

## For sale for use in the Prairie Provinces and Peace River, Okanagan and Creston Flats Regions of British Columbia Only.

\*Achieve and \*\*Turbocharge are registered trademarks of a Syngenta Group Company. Dow AgroSciences Canada Inc. is a licensed user.

Follow all mixing and spraying precautions, limitations, buffer zones, grazing instructions and timing recommendations on the Liquid Achieve SC Herbicide label.

**SPRAY VOLUME & PRESSURE:** For ground application, apply in 50-100 litres of water per hectare at a pressure of 275 kPa. For aerial application, apply in 30-45 litres of water per hectare at a pressure of 140-275 kPa.

**TIMING:** Applications of LOGIC M + Liquid Achieve SC Herbicide tank mixtures should be made to spring or durum wheat from the 2-leaf until the early flag leaf stage of growth (total leaves including tillers) (Zadoks or BBCN growth stage of 11,20 to 14,21) and when wild or volunteer oats are at the 1 - 6 leaf stage of growth (total leaves including tillers) (Zadoks or BBCN growth stage of 11,20 to 14,22) and when green or yellow foxtail are at the 1 - 5 leaf stage of growth (Zadoks or BBCN growth stage of 11,20 to 14,21) and when barnyard grass or persian darnel are at the 1-4 leaf stage of growth (Zadoks or BBCN growth stage of 11 to 14). Refer to the illustration on the Liquid Achieve SC Herbicide label.

**APPLICATION RATE:** LOGIC M at 1.25 L/ha tank-mixed with Liquid Achieve SC Herbicide at 0.5 L/ha in 50-100 L/ha of water. When using this tank mixture, add TURBOCHARGE\*\* to the spray tank at a concentration of 0.5% v/v (i.e. 0.5 L of TURBOCHARGE per 100 L of spray solution). The incorrect TURBOCHARGE rate can result in unacceptable weed control or crop injury.

#### WEEDS CONTROLLED:

As listed on the LOGIC M alone plus wild oats, volunteer oats, green foxtail, yellow foxtail, barnyard grass and persian darnel.

**NOTE:** LOGIC M + Liquid Achieve SC Herbicide tank mixture can be used in all varieties of spring wheat (including hard red spring, Canada prairie spring, soft white spring, and utility) and durum.

Only apply this mixture to spring or durum wheat that is NOT UNDERSEEDED TO LEGUMES.

#### LOGIC M + ALLY\*

\*ALLY is a registered trademark of E.I. DuPont de Nemours Company.

**NOTE:** Refer to the ALLY label for all buffer zones, grazing instructions, precautions, including limitations on soil pH, crop rotations and sprayer cleanup. DO NOT apply using aerial application equipment.

**SPRAY VOLUME & PRESSURE:** Apply in NOT LESS than 100 litres of water per hectare at a pressure of 275 kPa.

**TIMING:** Spring wheat and durum wheat (not underseeded with other crops) may be treated from the 2-leaf to early flag leaf stage.

**APPLICATION RATE:** LOGIC M at 1.25 L/ha tank-mixed with ALLY at 7.5 g/ha plus a surfactant as required on the ALLY label. Add ALLY to the required water volume in the tank first, agitate, then add LOGIC M, agitate, then add the surfactant. On repeat tank loads, prepare an ALLY/water slurry and add it to the required water volume in the tank prior to adding the LOGIC M.

#### WEEDS CONTROLLED:

As listed for LOGIC M alone at the recommended rate, plus hempnettle up to the 8 leaf stage (4 pairs of leaves), and chickweed up to 7 cm high. For best results, apply to the first main flush of young, actively growing weeds.

WHEAT (CONTD)

#### LOGIC M + HORIZON\* 240EC + Surfactant or LOGIC M + HORIZON W. O.\*\* (Spring Wheat and Durum Wheat only) For sale for use in the Prairie provinces and Peace River, Okanagan and Creston Flats Regions of British Columbia only.

\*Horizon and Score are registered trademarks of a Syngenta Group Company.

Follow all mixing and spraying precautions, buffer zones, grazing instructions, limitations and timing recommendations on the Horizon 240EC and Horizon W. O. labels. HORIZON Tank Mix consists of HORIZON 240EC and SCORE Adjuvant or HORIZON W.O. and SCORE Adjuvant. DO NOT apply using aerial application equipment.

**SPRAY VOLUME & PRESSURE:** Apply in 100 liters of water per hectare at a pressure of 275 kPa.

#### WEEDS CONTROLLED:

As listed for LOGIC M alone at the recommended rate, plus wild oats, volunteer (tame) oats, green foxtail (wild millet), yellow foxtail, barnyard grass, persian darnel and volunteer canary seed.

**TIMING (Crop):** Do not apply the LOGIC M + Horizon 240EC + Surfactant or LOGIC M + Horizon W. O. tank mixture before crop emergence is complete. Applications of the LOGIC M + Horizon 240EC + Surfactant or LOGIC M + Horizon W. O. tank mixture should be made in the 2 to prior to emergence of  $4^{\text{th}}$  tiller.

#### TIMING: (Weeds)

WILD OATS AND VOLUNTEER CANARY SEED: 1 to 6 leaf stage on main stem, prior to emergence of 4th tiller.

VOLUNTEER (TAME) OATS: 3 to 6 leaf stage on main stem, prior to emergence of 4<sup>th</sup> tiller.

GREEN FOXTAIL AND YELLOW FOXTAIL (wild millet, pigeon grass): 1 to 5 leaf stage on main stem. For optimum control apply prior to emergence of the 3rd tiller and while foxtail is actively growing.

BARNYARD GRASS AND PERSAIN DARNEL: 1 to 5 leaf stage on main stem. For optimal control apply before tillering, and while weeds are actively growing.

**APPLICATION RATE:** For wild oat, volunteer (tame) oats, green foxtail, yellow foxtail, barnyard grass and volunteer canaryseed control: LOGIC M at 1.25 L/ha tank-mixed with 230 mL/ha of HORIZON 240EC + 800 ml/ha SCORE Adjuvant with 100 L/ha of water (0.8 % volume/volume).

*For weeds listed above plus persian darnel control:* LOGIC M at 1.25 L/ha tank-mixed with 290 ml/ha of HORIZON 240EC + 1 L/ha SCORE Adjuvant with 100 L/ha of water (1.0% volume/volume).

For wild oats and green foxtail control only: LOGIC M at 1.25 L/ha tank-mixed with 230

ml/ha of HORIZON W. O. + 800 ml/ha SCORE Adjuvant with 100 L/ha of water (0.8 % volume/volume).

**MIXING INSTRUCTIONS:** Fill spray tank <sup>1</sup>/<sub>2</sub> full with water, followed by LOGIC M. Agitate for 2-3 minutes then add Horizon 240EC or Horizon W.O. and agitate for 2-3 minutes. Then add Score adjuvant, agitate 1-2 minutes, add the remaining water and maintain constant agitation.

#### NOTE:

The LOGIC M + Horizon 240EC + surfactant or LOGIC M + Horizon W. O. tank mixtures can be used on all varieties of spring and durum wheat.

Only apply this tank mixture to wheat that is NOT UNDERSEEDED TO LEGUMES. Do not apply within 15 metres of a body of water or wetland area.

#### LOGIC M + EVEREST\* 70 WDG + Surfactant (Spring wheat) For Sale and Use in Manitoba, Saskatchewan, Alberta and Peace River Region of British Columbia only.

\* Everest is a registered trademark of Arysta LifeScience North American Corporation.

Follow all mixing and spraying precautions, limitations and timing recommendations on the Everest 70 WDG label. DO NOT apply using aerial application equipment.

**SPRAY VOLUME & PRESSURE:** Apply in a spray volume of 100 litres of water per hectare at a pressure of 275 kPa.

#### WEEDS CONTROLLED:

As listed for LOGIC M alone at the recommended rate, plus wild oats and green foxtail (wild millet)

**TIMING (Crop):** Do not apply the LOGIC M + Everest 70 WDG tank mixture before crop emergence is complete. Applications of the LOGIC M + Everest 70 WDG tank mixture should be made to spring wheat that has a minimum of one leaf to a maximum of four leaves on the main stem, plus two tillers (1 leaf to 6 total leaves). Application beyond this stage may result in yield losses due to weed competition.

**TIMING (Weeds):** *Wild oats*: 1 to 4 leaves on the main stem, plus 2 tillers (1 leaf to 6 total leaves). No larger than 4-leaf, 2 tillers.

*Green foxtail (wild millet):* 1 to 4 leaves on the main stem, plus 2 tillers (1 leaf to 6 total leaves). No larger than 4-leaf, 2 tillers.

**APPLICATION RATE:** *For green foxtail (wild millet) control only:* LOGIC M at 1.25 L/ha tank-mixed with 21.5 g/ha of Everest 70 WDG and 0.25% v/v or 0.25 L/100 L of Agral 90 or Ag-Surf.

*For wild oat control only:* LOGIC M @1.25 L/ha tank-mixed with 28.5 g/ha of Everest 70 WDG and 0.25% v/v or 0.25 L/100L of Agral 90 or Ag-Surf.

*For green foxtail (wild millet) and wild oat control:* LOGIC M at 1.25 L/ha tank-mixed with 43 g/ha of Everest 70 WDG and 0.25% v/v or 0.25 L/100 L of Agral 90 **or** Ag-Surf.

**MIXING INSTRUCTIONS:** Fill spray tank 1/3 to ½ full with water, followed by Everest 70 WDG then LOGIC M, and surfactant, and remainder of the water.

#### NOTE:

The LOGIC M + Everest 70 WDG tank mixture can be used in all varieties of spring wheat (including hard red spring, Canada prairie spring, soft white spring and extra strong (utility) wheat.

Only apply this mixture to spring wheat that is NOT UNDERSEEDED TO LEGUMES. The following crops may be planted 11 months after application of LOGIC M + Everest 70 WDG depending on soil zone. *In the Black, Dark Brown and Gray-Wooded Soil Zones:* Spring wheat, barley, canola, field peas. Field peas may be grown the year following in fields where annual precipitation has been normal or above normal (10 year average) during the growing season, and where organic matter content is above 4%, and pH below 7.5. *In the Black and Dark Brown Soil Zones*: flax and durum may be planted 11 months after Logic M + Everest WDG is applied. *In the Black Soil Zone*: Field bean may be planted 11 months later. *In the Brown Soil Zones*: only spring wheat may be planted 11 months later. WHEAT (CONTD)

#### LOGIC M + REFINE EXTRA\* HERBICIDE DRY FLOWABLE 75% + Surfactant LOGIC M + REFINE EXTRA\* TOSS-N-GO DRY FLOWABLE 75% + Surfactant LOGIC M + REFINE SG HERBICIDE\* + Surfactant (winter wheat, spring wheat and Durum wheat)

\*Refine and Refine Extra are registered Trademarks of E.I. du Pont de Nemours Company.

Follow all mixing and spraying precautions, buffer zones, grazing instructions, limitations and timing recommendations on the Refine Extra Herbicide Dry Flowable 75%, Refine Extra Toss-N-Go Dry Flowable 75% and Refine SG Herbicide labels. DO NOT apply using aerial application equipment.

**SPRAY VOLUME & PRESSURE:** Apply in NOT LESS than 55 litres of water per hectare at a pressure of 275 kPa.

#### WEEDS CONTROLLED:

As listed for LOGIC M alone at the recommended rate, plus hemp-nettle up to the 6-leaf stage (3 pairs of leaves), and chickweed up to the 6 leaf stage (3 pairs of leaves).

**TIMING (Crop):** *Spring Wheat (not underseeded with other crops):* Apply from the 2 leaf to early flag leaf stage.

**TIMING (Weeds):** For best results apply to emerged, young, actively growing weeds that are less than 10 cm tall or across. Thorough coverage of target weeds is essential.

**APPLICATION RATE:** LOGIC M at 1.25 L/ha tank-mixed with 6.7 g/ha of Refine Extra Herbicide Dry Flowable 75% or 6.7 g/ha of Refine Extra Toss-N-Go Dry Flowable 75% or 10 g/ha of Refine SG Herbicide plus Agral 90 or Agsurf or Citowett Plus at a rate of 2 litres per 1000 litres of spray solution.

**MIXING INSTRUCTIONS:** Add Refine Extra Herbicide Dry Flowable 75%, Refine Extra Toss-N-Go Dry Flowable 75% or Refine SG Herbicide to the required water volume in the tank first, agitate, then add LOGIC M, agitate, then add the surfactant. On repeat tank loads, prepare a Refine Extra/water slurry and add it to the required water volume in the tank prior to adding LOGIC M.

WHEAT (CONTD)

#### LOGIC M + PUMA<sup>120</sup> SUPER \* Spring Wheat and Durum Wheat

For sale and use in the Prairie provinces and Peace River Region of British Columbia only. and in Spring Wheat in Eastern Canada<sup>†</sup>

\*Puma is a registered trademark of Bayer.

Follow all mixing and spraying precautions, buffer zones, grazing instructions, limitations and timing recommendations on the Puma<sup>120</sup> Super label.

**SPRAY VOLUME & PRESSURE:** For ground application, apply in 55-110 liters of water per hectare at a pressure of 275 kPa. For aerial application, apply in NOT LESS than 35 litres of water per hectare at a pressure no less than 300 kPa.

**TIMING:** Applications of LOGIC M + Puma<sup>120</sup> Super tank mixtures should be made to spring wheat and durum wheat from the 1-6 leaf stage of growth on the main stem plus 3 tillers. Application beyond the 6 leaf stage of spring and durum wheat may result in crop injury. Apply when annual grassy weeds are in the 1-6 leaf stage of growth.

**APPLICATION RATE:** LOGIC M at 1.25 L/ha tank-mixed with Puma<sup>120</sup> Super at 385 mL/ha.

#### WEEDS CONTROLLED:

As listed on the LOGIC M alone plus green foxtail (wild millet) only.

**APPLICATION RATE:** LOGIC M at 1.25 L/ha tank-mixed with Puma<sup>120</sup> Super at 770 mL/ha.

#### WEEDS CONTROLLED:

As listed on the LOGIC M alone plus wild oats, green foxtail (wild millet), yellow foxtail and barnyard grass.

**NOTE:** LOGIC M + Puma<sup>120</sup> Super tank mixtures can be used in all varieties of spring wheat (including hard red spring, Canada prairie soft, soft white spring, and utility) and durum.

<sup>†</sup>For control weeds listed on the LOGIC M alone plus wild oats in spring wheat grown in eastern Canada, apply LOGIC M at 1.25 L/ha + PUMA<sup>120</sup> SUPER at 770 ml/ha.

Rainfall within 1 hour of application may reduce effectiveness of tank-mix.

#### LOGIC M + REFINE EXTRA HERBICIDE DRY FLOWABLE 75%\* OR REFINE SG HERBICIDE\* + PUMA<sup>120</sup> SUPER\* Spring Wheat and Durum Wheat For sale for use in the Prairie provinces and Peace River Region of British Columbia only

\* Refine and Refine Extra are registered Trademarks of E.I. du Pont de Nemours Company. \*\*Puma is a registered trademark of Bayer.

**NOTE:** Follow all mixing and spraying precautions, buffer zones, grazing instructions, limitations and timing recommendations of the REFINE EXTRA HERBICIDE DRY FLOWABLE 75%, REFINE SG HERBICIDE AND PUMA<sup>120</sup> SUPER labels. DO NOT apply using aerial application equipment.

**SPRAY VOLUME AND PRESSURE:** Apply in 100 litres of water per hectare at a pressure of 275 kPa.

**TIMING:** Applications of LOGIC M + REFINE EXTRA HERBICIDE DRY FLOWABLE 75% OR REFINE SG HERBICIDE + PUMA<sup>120</sup> SUPER should be made to spring wheat and durum wheat from the 2-6 leaf stage of growth on the main stem plus 3 tillers. Application beyond the 6 leaf stage of spring and durum wheat may result in crop injury. Apply when annual grassy weeds are in the 1-6 leaf stage of growth.

**APPLICATION RATE:** LOGIC M at 1.25 L/ha tank mixed with REFINE EXTRA HERBICIDE DRY FLOWABLE 75% at 6.7 g/ha or REFINE SG at 10 g/ha + PUMA<sup>120</sup> SUPER at 385 ml/ha.

**WEEDS CONTROLLED:** As listed for LOGIC M alone at the recommended rate, plus hempnettle up to the 6<sup>th</sup> leaf stage (3 pairs of leaves), chickweed up to the 6 leaf stage (3 pairs of leaves), green foxtail (wild millet) ONLY. For best results, apply to the first main flush of young, actively growing weeds.

**APPLICATION RATE:** LOGIC M at 1.25 L/ha tank mixed with REFINE EXTRA HERBICIDE DRY FLOWABLE 75% at 6.7 g/ha or REFINE SG HERBICIDE at 10 g/ha + PUMA<sup>120</sup> SUPER at 770 ml/ha.

**WEEDS CONTROLLED:** As listed for LOGIC M alone at the recommended rate, plus hempnettle up to the  $6^{th}$  leaf stage (3 pairs of leaves), chickweed up to the 6 leaf stage (3 pairs of leaves), wild oats, green foxtail (wild millet), yellow foxtail and barnyard grass. For best results, apply to the first main flush of young, actively growing weeds.

WHEAT (CONTD)

#### LOGIC M + AXIAL 100EC\* + ADIGOR\*\* (Spring Wheat only) For sale for use in the prairie provinces and Peace River, Okanagan and Creston Flats regions of British Columbia

\*Axial and \*\*Adigor are registered trademarks of a Syngenta group company.

Follow all mixing and spraying precautions, buffer zones, grazing instructions, limitations and timing recommendations of the Axial 100EC label. DO NOT apply using aerial application equipment.

**SPRAY VOLUME & PRESSURE:** Apply in 50 to 100 liters of water per hectare at a pressure of 275 kPa.

**WEEDS CONTROLLED:** As listed for LOGIC M alone at the recommended rate, plus wild oats, green foxtail, yellow foxtail, volunteer oats, volunteer canary seed and proso millet.

**TIMING (Crop):** Application of LOGIC M + AXIAL 100EC + ADIGOR should be made to spring wheat from the 2 to flag leaf stage of growth. Do not apply past flag leaf stage.

**TIMING (Weeds):** Application of LOGIC M + AXIAL 100EC + ADIGOR should be made when wild oats, green foxtail, yellow foxtail, volunteer oats, volunteer canary seed, proso millet are in the 1 - 6 leaf stage of growth, prior to  $4^{th}$  tiller and while actively growing. Do not apply past flag leaf stage.

**APPLICATION RATE:** LOGIC M at 1.25 l/ha tank mixed with AXIAL 100EC at 600 ml/ha + ADIGOR at 700 ml/ha. When tank-mixing, always add LOGIC M to the spray tank first; followed by AXIAL 100EC with ADIGOR Adjuvant added last.

**NOTE:** Temporary crop injury may occur with this tank mix under extreme weather conditions or when the crop is suffering from stress due to inadequate or abnormally high moisture levels or extreme temperatures.

LOGIC M + AXIAL 100EC can be used in all varieties of spring wheat. One application per year is permitted. Observe a minimum interval to harvest to 60 days after treatment for grain and straw and of 30 days after treatment for hay and grazing of livestock. Do not apply if rain is expected within 1 hour after spraying. Only apply this tank mixture to wheat that is NOT UNDERSEEDED TO LEGUMES.

#### WHEAT (winter)

#### (underseeded to red clover)

For use in Ontario, Qubec and the Maritime Provinces only.

#### LOGIC M USED ALONE

**SPRAY VOLUME & PRESSURE:** Apply in NOT LESS than 200 liters of water per hectar at a pressure of 275 kPa.

**TIMING:** Apply in the spring when the red clover is in the 1<sup>st</sup> to 3<sup>rd</sup> trifoliate leaf stage and when the winter wheat provides a protective canopy over the red clover. The winter wheat may be treated from the 2-leaf until the early flag leaf stage.

#### APPLICATION RATE: 1.25 L/ha

**NOTE:** Use of this product may cause temporary leaf scorch or foliar burn in adverse growing conditions, especially if applied before or during periods of hot and humid weather conditions. Do not apply if the red clover is under stress. Avoid overlapping as severe crop injury may occur.

#### WEEDS CONTROLLED

Seedlings up to 4-leaf stage Green smartweed Pale smartweed Lady's-thumb Cow cockle\* Redroot pigweed Flixweed Bluebur Shepherd's-purse Kochia\*\* Russian thistle\*\* Scentless chamomile\*\*\* Volunteer sunflower Volunteer rapeseed (including Canola) Night flowering catchfly Cocklebur Velvetleaf\*\*\*\* Ball mustard American nightshade

Seedlings up to 6-leaf stage Wild tomato Seedlings up to 8-leaf stage Wild buckwheat Tartary buckwheat Common buckwheat Stinkweed Wild mustard Wormseed mustard Lamb's-quarters Common ragweed Common groundsel Perennials: Top-growth checked Canada thistle Perennial sow-thistle

\*In normal conditions cow cockle will be controlled up to the 4-leaf stage. Plants beyond this stage are unlikely to be controlled.

\*\*Spray before plants are 5 cm high.

\*\*\*Spring annuals only.

\*\*\*\*Spray before plants are 8 cm high.

Rainfall within 1 hour of application may reduce effectiveness of tank-mix.

## **BARLEY** (not underseeded to legumes)

#### LOGIC M USED ALONE

**SPRAY VOLUME & PRESSURE:** Apply in NOT LESS than 50 litres of water per hectare at a pressure of 275 kPa.

**TIMING:** The crop may be treated from the 2-leaf until the early flag leaf stage.

#### APPLICATION RATE: 1.25 L/ha

#### WEEDS CONTROLLED

#### Seedlings up to 4-leaf stage

Green smartweed Pale smartweed Lady's-thumb Cow Cockle\* Redroot pigweed Flixweed Bluebur Shepherd's-purse Kochia\*\* Russian thistle\*\* Scentless chamomile\*\*\* Volunteer sunflower Volunteer rapeseed (including Canola) Night flowering catchfly Cocklebur Velvetleaf\*\*\*\* Ball mustard American nightshade

Seedlings up to 6-leaf stage Wild tomato Seedlings up to 8-leaf stage Wild buckwheat Tartary buckwheat Common buckwheat Stinkweed Wild mustard Wormseed mustard Lamb's-quarters Common ragweed Common groundsel

**Perennials: Top-growth checked** Canada thistle Perennial sow-thistle

\*In normal conditions cow cockle will be controlled up to the 4-leaf stage. Plants beyond this stage are unlikely to be controlled. \*\*Spray before plants are 5 cm high.

\*\*\*Spring annuals only.

\*\*\*\*Spray before plants are 8 cm high.

#### LOGIC M + MCPA

**SPRAY VOLUME & PRESSURE:** Apply in NOT LESS than 50 litres of water per hectare at a pressure of 275 kPa.

**TIMING:** The crop may be treated from the 2-leaf until the early flag leaf stage.

**APPLICATION RATE:** LOGIC M at 1.25 L/ha tank-mixed with 275 g active ingredient MCPA per hectare.

**NOTE:** MCPA-K is preferred for hempnettle although other formulations may be used. Refer to the MCPA label for precautions, buffer zones, grazing instructions and limitations. Add MCPA to the spray tank first, agitate, then add LOGIC M.

#### WEEDS CONTROLLED

As listed for LOGIC M alone plus these additional weeds. Seedlings up to 4-leaf stage Hempnettle\* \*Hempnettle is unlikely to be controlled beyond the 4-leaf stage. Plants emerging after application, which is often the case on peat- type soils, will not be controlled.

#### LOGIC M + AVENGE 200-C\*

\*AVENGE is a registered trademark of Amvac Chemical Corporation.

Follow all precautions, buffer zones, grazing instructions, limitations and timing recommendations on the AVENGE 200-C label.

**SPRAY VOLUME & PRESSURE:** Apply in 100 litres of water per hectare at a pressure of 275 kPa.

**TIMING:** The crop may be treated from the 2 to 6-leaf stage. Wild oats must be in the 3 to 5-leaf stage and broadleaf weeds in the seedling stage as indicated.

**APPLICATION RATE:** LOGIC M at 1.25 L/ha tank-mixed with AVENGE 200-C at 3.5 – 4.25 L/ha **OR** LOGIC M at 1.25 L/ha plus 275 g active ingredient MCPA ester per hectare tank-mixed with AVENGE 200-C at 3.5 – 4.25 L/ha.

**NOTE:** LOGIC M should be added to the spray tank first, agitated, then add AVENGE 200-C.

#### WEEDS CONTROLLED

As listed for LOGIC M used alone or in combination with MCPA *plus* wild oats.

#### LOGIC M + LIQUID ACHIEVE SC HERBICIDE\* (Spring Barley only)

#### For sale for use in the Prairie provinces and Peace River, Okanagan and Creston Flats Regions of British Columbia only.

\*Achieve and \*\*Turbocharge are registered trademarks of a Syngenta Group Company. Dow AgroScience Canada Inc. is a licensed user.

Follow all mixing and spraying precautions, buffer zones, grazing instructions, limitations and timing recommendations on the Liquid Achieve SC Herbicide label.

**SPRAY VOLUME & PRESSURE:** For ground application, apply in 50-100 litres of water per hectare at a pressure of 275 kPa. For aerial application, apply in 30-45 litres of water per hectare at a pressure of 140-275 kPa.

**TIMING:** Applications of LOGIC M + Liquid Achieve SC Herbicide tank mixtures should be made to spring barley from the 2-leaf until the early flag leaf stage of growth (total leaves including tillers) (Zadoks or BBCN growth stage of 11,20 to 14,21) and when wild oats or volunteer oats are at the 1 - 6 leaf stage of growth (total leaves including tillers) (Zadoks or BBCN growth stage of 11,20 to 14,22) and when green foxtail (wild millet) or yellow foxtail are at the 1 - 5 leaf stage of growth (Zadoks or BBCN growth stage of 11,20 to 14,21) and when barnyard grass or Persian darnel are at the 1-4 leaf stage of growth (Zadoks or BBCN growth stage of 11 to 14). Refer to the illustration on the Liquid Achieve SC Herbicide label.

**APPLICATION RATE:** LOGIC M at 1.25 L/ha tank-mixed with Liquid Achieve SC Herbicide 0.5 L/ha in 50-100 L/ha of water. When using this tank mixture, add Turbocharge\*\* to the spray tank at a concentration of 0.5% v/v (i.e. 0.5 L of Turbocharge per 100 L of spray solution). The incorrect TURBOCHARGE rate can result in unacceptable weed control and crop injury.

#### WEEDS CONTROLLED

As listed on the LOGIC M alone plus wild oats, green foxtail, yellow foxtail, barnyard grass and persian darnel.

**NOTE:** LOGIC M + Liquid Achieve SC Herbicide tank mixture can be used in all 2 or 6 row varieties of barley (malting and general-purpose varieties including semi-dwarf and hulless). Only apply this mixture to spring barley that is NOT UNDERSEEDED TO LEGUMES.

BARLEY (CONTD)

#### LOGIC M + ALLY\*

\*ALLY is a registered trademark of E.I. DuPont de Nemours Company.

**NOTE:** Refer to the ALLY label for all precautions, buffer zones, grazing instructions, including limitations on soil pH, crop rotations and sprayer cleanup. DO NOT apply using aerial application equipment.

**SPRAY VOLUME & PRESSURE:** Apply in NOT LESS than 100 litres of water per hectare at a pressure of 275 kPa.

**TIMING:** Barley (not underseeded with other crops) may be treated from the 2-leaf to early flag leaf stage.

**APPLICATION RATE:** LOGIC M at 1.25 L/ha tank-mixed with ALLY at 7.5 g/ha plus a surfactant as required on the ALLY label. Add ALLY to the required water volume in the tank first, agitate, then add LOGIC M, agitate, then add the surfactant. On repeat tank loads, prepare an ALLY/water slurry and add it to the required water volume in the tank prior to adding the LOGIC M.

#### WEEDS CONTROLLED

As listed for LOGIC M alone at the recommended rate, plus hempnettle up to the 8 leaf stage (4 pairs of leaves), and chickweed up to 7 cm high. For best results, apply to the first main flush of young, actively growing weeds.

BARLEY (CONTD)

#### LOGIC M + REFINE EXTRA\* HERBICIDE DRY FLOWABLE 75% + Surfactant LOGIC M + REFINE EXTRA\* TOSS-N-GO DRY FLOWABLE 75% + Surfactant LOGIC M + REFINE SG HERBICIDE\* + Surfactant (spring barley)

\* Refine and Refine Extra are registered Trademarks of E.I. du Pont de Nemours Company.

Follow all mixing and spraying precautions, buffer zones, grazing instructions, limitations and timing recommendations on the Refine Extra Herbicide Dry Flowable 75%, Refine Extra Toss-N-Go Dry Flowable 75% and Refine SG Herbicide labels. DO NOT apply using aerial application equipment.

**SPRAY VOLUME & PRESSURE:** Apply in NOT LESS than 55 litres of water per hectare at a pressure of 275 kPa.

#### WEEDS CONTROLLED:

As listed for LOGIC M alone at the recommended rate, plus hemp-nettle up to the 6-leaf stage (3 pairs of leaves), and chickweed up to the 6 leaf stage (3 pairs of leaves).

TIMING (Crop): Spring Barley: Apply from the 2 leaf to early flag leaf stage.

**TIMING (Weeds):** For best results apply to emerged, young, actively growing weeds that are less than 10 cm tall or across. Thorough coverage of target weeds is essential.

**APPLICATION RATE:** LOGIC M at 1.25 L/ha tank-mixed with 6.7 g/ha of Refine Extra Herbicide Dry Flowable 75%, 6.7 g/ha of Refine Extra Toss-N-Go Dry Flowable 75% or 10 g/ha of Refine SG Herbicide plus Agral 90 **or** Agsurf **or** Citowett Plus at a rate of 2 litres per 1000 litres of spray solution.

**MIXING INSTRUCTIONS:** Add Refine Extra Herbicide Dry Flowable 75%, Refine Extra Toss-N-Go Dry Flowable 75% or Refine SG Herbicide to the required water volume in the tank first, agitate, then add LOGIC M, agitate, then add the surfactant. On repeat tank loads, prepare a Refine Extra/water slurry and add it to the required water volume in the tank prior to adding LOGIC M.

#### NOTE:

Only apply this mixture to spring barley that is NOT UNDERSEEDED TO LEGUMES.

#### LOGIC M + PUMA<sup>120</sup> SUPER\* Spring Barley For sale for use in the Prairie Provinces and Peace River Region of British Columbia ONLY

\*Puma is a registered trademark of Bayer, Inc.

Follow all mixing and spraying precautions, buffer zones, grazing instructions, limitations and timing recommendations on the Puma<sup>120</sup> Super Herbicide label.

**SPRAY VOLUME & PRESSURE:** For ground application, apply in 55-110 liters of water per hectare at a pressure of 275 kPa. For aerial application, apply in no less than 35 liters of water per hectare at a pressure no less than 300 kPa.

**TIMING:** Applications of LOGIC M + Puma<sup>120</sup> Super tank mixtures should be made to spring barley from the 2-5 leaf stage of growth on the main stem plus 2 tillers (Zadoks 11-15,22). Application beyond the 5 leaf, 2 tiller stage of spring barley may result in crop injury. Applications of Puma<sup>120</sup> Super on Spring Barley should be avoided 2-3 days prior to or following cold temperatures (3°C or lower). Apply when annual grassy weeds are in the 1-6 leaf stage of growth.

**APPLICATION RATE:** LOGIC M at 1.25 L/ha tank-mixed with Puma<sup>120</sup> Super at 385 mL/ha.

#### WEEDS CONTROLLED:

As listed on the LOGIC M alone plus green foxtail ONLY.

**APPLICATION RATE:** LOGIC M at 1.25 L/ha tank-mixed with Puma<sup>120</sup> Super at 770 mL/ha.

#### WEEDS CONTROLLED:

As listed on the LOGIC M alone plus wild oats, green foxtail (wild millet), yellow foxtail and barnyard grass.

Do not apply within 15 metres of a body of water or wetland area.

Rainfall within 1 hour of application may reduce effectiveness of tank-mix.

#### LOGIC M + REFINE EXTRA HERBICIDE DRY FLOWABLE 75%\* OR REFINE SG HERBICIDE + PUMA<sup>120</sup> SUPER\*\* Spring Barley For use in the Prairie Provinces and Peace River Region of British Columbia ONLY.

\*Refine and Refine Extra are registered Trademarks of E.I. du Pont de Nemours Company. \*\*Puma is a registered trademark of Bayer, Inc.

**NOTE:** Follow all mixing and spraying precautions, buffer zones, grazing instructions, limitations and timing recommendations of the REFINE EXTRA HERBICIDE DRY FLOWABLE 75%, REFINE SG HERBICIDE AND PUMA<sup>120</sup> SUPER labels. DO NOT APPLY THIS TANK MIX USING AERIAL APPLICATION EQUIPMENT.

**SPRAY VOLUME AND PRESSURE:** Apply in 100 litres of water per hectare at a pressure of 275 kPa.

**TIMING:** Applications of LOGIC M + REFINE EXTRA HERBICIDE DRY FLOWABLE 75% OR REFINE SG HERBICIDE + PUMA<sup>120</sup> SUPER should be made to spring barley from the 2-5 leaf stage of growth on the main stem plus 2 tillers. Application beyond the 5 leaf stage of spring barley may result in crop injury. Applications of Puma<sup>120</sup> Super on Spring Barley should be avoided 2-3 days prior to or following cold temperatures (3°C or lower) Apply when annual grassy weeds are in the 1-6 leaf stage of growth.

**APPLICATION RATE:** LOGIC M at 1.25 L/ha tank mixed with REFINE EXTRA HERBICIDE DRY FLOWABLE 75% at 6.7 g/ha or REFINE SG HERBICIDE at 10 g/ha + PUMA<sup>120</sup> SUPER at 385 ml/ha.

**WEEDS CONTROLLED:** As listed for LOGIC M alone at the recommended rate, plus hempnettle up to the 6<sup>th</sup> leaf stage (3 pairs of leaves), chickweed up to the 6 leaf stage (3 pairs of leaves), green foxtail ONLY. For best results, apply to the first main flush of young, actively growing weeds.

**APPLICATION RATE:** LOGIC M at 1.25 L/ha tank mixed with REFINE EXTRA HERBICIDE DRY FLOWABLE 75% at 6.7 g/ha or REFINE SG HERBICIDE at 10 g/ha + PUMA<sup>120</sup> SUPER at 770 ml/ha.

**WEEDS CONTROLLED:** As listed for LOGIC M alone at the recommended rate, plus hempnettle up to the 6<sup>th</sup> leaf stage (3 pairs of leaves), chickweed up to the 6 leaf stage (3 pairs of leaves), wild oats, green foxtail (wild millet), yellow foxtail and barnyard grass. For best results, apply to the first main flush of young, actively growing weeds.

#### LOGIC M + AXIAL 100EC\* + ADIGOR\*\* (Spring Barley only) For use in the prairie provinces and Peace River, Okanagan and Creston Flats regions of British Columbia

\*Axial and \*\*Adigor are registered trademarks of a Syngenta group company.

Follow all mixing and spraying precautions, buffer zones, grazing instructions, limitations and timing recommendations of the Axial 100EC label. DO NOT apply using aerial application equipment.

**SPRAY VOLUME & PRESSURE:** Apply in 50 to 100 liters of water per hectare at a pressure of 275 kPa.

**WEEDS CONTROLLED:** As listed for LOGIC M alone at the recommended rate, plus wild oats, green foxtail, yellow foxtail, volunteer oats, volunteer canary seed and proso millet.

**TIMING (Crop):** Application of LOGIC M + AXIAL 100EC + ADIGOR should be made to spring barley from the 2 leaf to flag leaf stage of growth. Do not apply past flag leaf stage.

**TIMING (Weeds):** Application of LOGIC M + AXIAL 100EC + ADIGOR should be made when wild oats, green foxtail, yellow foxtail, volunteer oats, volunteer canary seed, proso millet are in the 1 - 6 leaf stage of growth, prior to  $4^{th}$  tiller and while actively growing. Do not apply past flag leaf stage.

**APPLICATION RATE:** LOGIC M at 1.25 l/ha tank mixed with AXIAL 100EC at 600 ml/ha + ADIGOR at 700 ml/ha. When tank-mixing, always add LOGIC M to the spray tank first; followed by AXIAL 100EC with ADIGOR Adjuvant added last.

**NOTE:** Temporary crop injury may occur with this tankmix under extreme weather conditions or when the crop is suffering from stress due to inadequate or abnormally high moisture levels or extreme temperatures.

LOGIC M + AXIAL 100EC can be used in all varieties of spring barley. One application per year is permitted. Observe a minimum interval to harvest of 60 days after treatment for grain and straw and of 30 days after treatment for hay and grazing of livestock. Do not apply if rain is expected within 1 hour after spraying. Only apply this tank mixture to spring wheat that is NOT UNDERSEEDED TO LEGUMES.

## OATS (not underseeded to legumes)

#### LOGIC M USED ALONE

**SPRAY VOLUME & PRESSURE:** Apply in NOT LESS than 50 litres of water per hectare at a pressure of 275 kPa.

**TIMING:** The crop may be treated from the 2-leaf until the early flag leaf stage.

#### APPLICATION RATE: 1.25 L/ha

#### WEEDS CONTROLLED

#### Seedlings up to 4-leaf stage

Green smartweed Pale smartweed Lady's-thumb Cow Cockle\* Redroot pigweed Flixweed Bluebur Shepherd's-purse Kochia\*\* Russian thistle\*\* Scentless chamomile\*\*\* Volunteer sunflower Volunteer rapeseed (including Canola) Night flowering catchfly Cocklebur Velvetleaf\*\*\*\* Ball mustard American nightshade

Seedlings up to 6-leaf stage Wild tomato Seedlings up to 8-leaf stage Wild buckwheat Tartary buckwheat Common buckwheat Stinkweed Wild mustard Wormseed mustard Lamb's-quarters Common ragweed Common groundsel

**Perennials: Top-growth checked** Canada thistle Perennial sow-thistle

\*In normal conditions cow cockle will be controlled up to the 4-leaf stage. Plants beyond this stage are unlikely to be controlled. \*\*Spray before plants are 5 cm high. \*\*\*Spring annuals only.

\*\*\*\*Spray before plants are 8 cm high.

# LOGIC M + MCPA

**SPRAY VOLUME & PRESSURE:** Apply in NOT LESS than 50 litres of water per hectare at a pressure of 275 kPa.

**TIMING:** The crop may be treated from the 2-leaf until the early flag leaf stage.

**APPLICATION RATE:** LOGIC M at 1.25 L/ha tank-mixed with 275 g active ingredient MCPA per hectare.

**NOTE:** MCPA-K is preferred for hempnettle although other formulations may be used. Refer to the MCPA label for precautions and limitations. Add MCPA to the spray tank first, agitate, then add LOGIC M.

#### WEEDS CONTROLLED

As listed for LOGIC M alone plus these additional weeds. Seedlings up to 4-leaf stage Hempnettle\* \*Hempnettle is unlikely to be controlled beyond the 4-leaf stage. Plants emerging after application, which is often the case on peat- type soils, will not be controlled.

## CORN (Field & Sweet)

#### LOGIC M USED ALONE

**SPRAY VOLUME & PRESSURE:** Apply in 200 – 300 litres of water per hectare at a pressure of 275 kPa. DO NOT apply using aerial application equipment.

**TIMING:** Corn should be treated with a broadcast post-emergence application at the recommended rate FROM THE 4 to 6-LEAF STAGE. Damage to corn will result if sprayed beyond the 6-leaf stage.

#### APPLICATION RATE: 1.25 L/ha

**NOTE:** Temporary crop injury in the form of leaf scorching may occur in adverse growing conditions (especially if applied during or after periods of cool and wet, or hot and humid weather conditions). Cultivation after application is not recommended. DO NOT ADD OIL OR SURFACTANT.

#### WEEDS CONTROLLED

#### Seedlings up to 4-leaf stage

Green smartweed Pale smartweed Lady's-thumb Cow Cockle\* Redroot pigweed Flixweed Bluebur Shepherd's-purse Kochia\*\* Russian thistle\*\* Scentless chamomile\*\*\* Volunteer sunflower Volunteer rapeseed (including Canola) Night flowering catchfly Cocklebur Velvetleaf\*\*\*\* Ball mustard American nightshade

Seedlings up to 6-leaf stage Wild tomato Seedlings up to 8-leaf stage Wild buckwheat Tartary buckwheat Common buckwheat Stinkweed Wild mustard Wormseed mustard Lamb's-quarters Common ragweed Common groundsel

# Perennials: Top-growth checked

Canada thistle Perennial sow-thistle

\*In normal conditions cow cockle will be controlled up to the 4-leaf stage. Plants beyond this stage are unlikely to be controlled. \*\*Spray before plants are 5 cm high. \*\*\*Spring annuals only. \*\*\*\*Spray before plants are 8 cm high.

#### LOGIC M + ATRAZINE

**SPRAY VOLUME & PRESSURE:** Apply in 200 – 300 litres of water per hectare at a pressure of 275 kPa. DO NOT apply using aerial application equipment.

**TIMING:** Corn should be treated FROM THE 4 to 6-LEAF STAGE. Damage to corn will result if sprayed beyond the 6-leaf stage.

**APPLICATION RATE:** LOGIC M at 1.25 L/ha tank-mixed with 1.1 - 2.25 kg active ingredient per hectare. Add atrazine to the spray tank first, mix well, then add LOGIC M.

**NOTE:** Temporary crop injury in the form of leaf scorching may occur in adverse growing conditions (especially if applied during or after periods of cool and wet, or hot and humid weather conditions). Cultivation after application is not recommended. DO NOT ADD OIL OR SURFACTANT, OR USE ATRAZINE FORMULATIONS CONTAINING OIL. Refer to the atrazine label for instructions, precautions, buffer zones, grazing instructions and limitations, especially on crop restrictions the following year.

#### WEEDS CONTROLLED

As listed for LOGIC M used alone *plus* weeds as indicated on the atrazine label.

# FALL RYE (not underseeded to legumes)

# LOGIC M USED ALONE

**SPRAY VOLUME & PRESSURE:** Apply in NOT LESS than 50 litres of water per hectare at a pressure of 275 kPa.

**TIMING:** Fall rye may be treated from the time growth commences to the early flag leaf stage in the spring.

### APPLICATION RATE: 1.25 L/ha

#### Seedlings up to 4-leaf stage

Green smartweed Pale smartweed Lady's-thumb Cow Cockle\* Redroot pigweed Flixweed Bluebur Shepherd's-purse Kochia\*\* Russian thistle\*\* Scentless chamomile\*\*\* Volunteer sunflower Volunteer rapeseed (including Canola) Night flowering catchfly Cocklebur Velvetleaf\*\*\*\* Ball mustard American nightshade

#### WEEDS CONTROLLED

Seedlings up to 6-leaf stage Wild tomato Seedlings up to 8-leaf stage Wild buckwheat Tartary buckwheat Common buckwheat Stinkweed Wild mustard Wormseed mustard Lamb's-quarters Common ragweed Common groundsel

**Perennials: Top-growth checked** Canada thistle Perennial sow-thistle

\*In normal conditions cow cockle will be controlled up to the 4-leaf stage. Plants beyond this stage are unlikely to be controlled. \*\*Spray before plants are 5 cm high. \*\*\*Spring annuals only. \*\*\*\*Spray before plants are 8 cm high

# FLAX (including low linolenic acid varieties) LOGIC M USED ALONE

**SPRAY VOLUME & PRESSURE:** Apply in NOT LESS than 50 litres of water per hectare at a pressure of 275 kPa. DO NOT apply using aerial application equipment.

**TIMING:** Flax may be treated from the time it is 5 cm high up to the early flower bud stage but for *best results apply LOGIC M when flax is 5 to 10 cm high*. Some leaf burn and check to growth may follow spraying.

Observe a minimum interval to harvest of 60 days after application of LOGIC M. **Spraying in the evening may reduce risk of flax injury.** 

**WARNING:** Do not spray unthrifty crops or when plants are under stress. Do not spray in periods of hot, humid weather.

# APPLICATION RATE: 1.25 L/ha

## WEEDS CONTROLLED

Due to flax's less competitive nature, weeds should be sprayed in as early a leaf stage as possible, up to the recommended leaf stage.

Seedlings up to 4-leaf stage	Seedlings up to 6-leaf stage
Green smartweed	Wild tomato
Pale smartweed	Seedlings up to 8-leaf stage
Lady's-thumb	Wild buckwheat
Cow Cockle*	Tartary buckwheat
Flixweed	Common buckwheat
Bluebur	Stinkweed
Shepherd's-purse	Wild mustard
Kochia**	Wormseed mustard
Russian thistle**	Lamb's-quarters
Scentless chamomile***	Common ragweed
Volunteer sunflower	Common groundsel
Volunteer rapeseed (including Canola)	
Night flowering catchfly	Perennials: Top-growth checked
Cocklebur	Canada thistle
Velvetleaf****	Perennial sow-thistle
Ball mustard	
American nightshade	

\*In normal conditions cow cockle will be controlled up to the 4-leaf stage. Plants beyond this stage are unlikely to be controlled.

\*\*Spray before plants are 5 cm high.

\*\*\*Spring annuals only.

\*\*\*\*Spray before plants are 8 cm high.

FLAX (CONTD)

# LOGIC M + SELECT\* + AMIGO\*\*

# LOGIC M + CENTURION\*\*\* + AMIGO

# LOGIC M + ARROW 240 EC\*\*\*\* + SURFACTANT

## **ON FLAX**

#### (including low linolenic acid varieties)

SELECT\*, AMIGO\*\* and CENTURION\*\*\* are registered trademarks of Arysta LifeScience North America Corporation.

ARROW 240 EC\*\*\*\* is a registered trademark of Makhteshim-Agan of North America Ltd.

Follow all precautions, buffer zones, grazing instructions, limitations and timing recommendations on the tank mix partner label.

**SPRAY VOLUME & PRESSURE:** Apply in 55 – 110 litres of water per hectare at a pressure of 275 kPa. DO NOT apply using aerial application equipment.

**TIMING:** Flax may be treated from 5 cm. high up to the early bud stage. For best results, apply this tank-mix when flax is 5-10 cm. high and weeds are in the seedling stage. Leaf burn and check to crop growth may follow spraying. When using this tank-mix, it is important that application be made at the recommended stage of weed growth, particularly where smartweed is present. If broadleaf weeds and grasses are not within the recommended stage at the same time, then separate applications should be made.

**WARNING:** Do not spray unthrifty crops or when flax is under stress due to drought or excess soil moisture. Do not spray in hot, humid weather conditions. This treatment may cause leaf burn, retarded growth and delayed maturity of the crop.

**APPLICATION RATE:** LOGIC M at 1.25 L/ha tank-mixed with 0.19 L/ha SELECT, CENTURION or ARROW 240 EC. AMIGO adjuvant must be added as per the SELECT or CENTURION label directions. Surfactant adjuvant must be added as per the ARROW 240 EC lable. Add LOGIC M to the spray tank half filled with water, agitate, add SELECT, CENTURION or ARROW 240 EC, continue agitation, add AMIGO or Surfactant and remaining amount of water, continue to agitate.

# WEEDS CONTROLLED

As listed for LOGIC M alone on flax *plus* these additional weeds:

Wild oats Barnyard grass Volunteer barley Volunteer oats Volunteer wheat Volunteer corn Volunteer canary seed Yellow & green foxtail Persian darnel Crabgrass (smooth and large) Proso millet Witchgrass Fall panicum Quackgrass suppression

**APPLICATION RATE:** LOGIC M at 1.25 L/ha tank-mixed with 0.38 L/ha SELECT, CENTURION or ARROW 240 EC.

## WEEDS CONTROLLED

As listed for LOGIC M alone on flax *plus* these additional weeds: Quackgrass control

#### FLAX (CONTD)

## LOGIC M + POAST\* ULTRA + Surfactant (Flax including low linolenic acid varieties)

\* Poast ULTRA is a registered trademark of BASF AG. \*\*Merge is a registered trademark of BASF AG.

Follow all mixing and spraying precautions, buffer zones, grazing instructions, limitations and timing recommendations on the Poast Ultra label.

**SPRAY VOLUME & PRESSURE:** Thoroughly clean all screens to prevent nozzle clogging, especially when water volumes of 50 to 100 L/ha are used. In general, use water volumes of 50 to 100 L/ha, and a minimum of 240 kPa pressure. For applications to dense weed infestations use 100 to 200 L of water per hectare at pressures of 275 to 425 kPa. For quackgrass control use 100 to 200 L of water per hectare at pressures of 275 to 425 kPa. DO NOT apply using aerial application equipment.

**WARNING:** Do not spray unthrifty crops or when flax is under stress due to drought or excess soil moisture. Do not spray in hot, humid weather conditions. This treatment may cause leaf burn, retarded growth and delayed maturity of the crop.

## WEEDS CONTROLLED:

As listed for LOGIC M alone at the recommended rate, annual and perennial grasses listed on the Poast Ultra Herbicide label.

**TIMING (Crop):** Flax may be treated from 5 to 10 cm high. Leaf burn and check to growth may follow spraying. When using this tank-mix it is important that application be made at the recommended stage of weed growth, particularly where green and pale smartweed are present. If broad-leaved weeds and grasses are not within the recommended treatment stage at the same time, then separate applications should be made. Do not apply during flowering.

**TIMING (WEEDS):** As listed for LOGIC M alone for weed staging. For annual and perennial grasses refer to the Poast Ultra Herbicide label.

**APPLICATION RATE:** LOGIC M at 1.25 L/ha tank-mixed with 0.32-0.47 L/ha of Poast Ultra Herbicide and Merge\*\* adjuvant at 0.5-1 L/ha.

For maximum crop safety, it is recommended that the lowest registered Merge surfactant rate be used in this tank-mix.

**MIXING INSTRUCTIONS:** Fill spray tank ½ full with water and start agitation system. Add Poast Ultra Herbicide. Then add LOGIC M, Merge adjuvant and the balance of the water.

## LOGIC M + FUSION HERBICDE\* ON FLAX (including low linolenic acid varieties) For sale for use in Prairie provinces and Peace River regions of British Columbia only.

\*FUSION is a registered trademark of Bayer CropScience Inc.

Follow all precautions, buffer zones, grazing instructions, limitations and timing recommendations on the FUSION HERBICIDE label.

**SPRAY VOLUME & PRESSURE:** Apply in 55 – 110 litres of water per hectare at a pressure of 275 kPa. DO NOT apply using aerial application equipment.

**TIMING:** Apply when annual grassy weeds are in the 1-6 leaf stage of growth. Weeds that emerge after application will not be controlled.

**WARNING:** During periods of stress, plants are not actively growing. When daytime temperatures before or after application are very hot, combined with very dry conditions and low humidity, plants are under stress. Application during these periods may result in substantially reduced control. Do not apply to crop that is stressed by severe weather conditions, frost, low fertility, drought, water saturated soil, disease or insect damage, as crop injury may result.

**APPLICATION RATE:** LOGIC M at 1.25 L/ha tank-mixed with Component #1 of the FUSION HERBICIDE tank mix at a rate of 0.46 L/ha of plus Component #2 of the FUSION HERBICIDE tank mix at a rate of 0.8 L/ha. Add LOGIC M to the spray tank half filled with water, agitate, add Component #1 of FUSION tank mix, continue agitation until mixed completely, then add Component #2 of FUSION tank mix and remaining amount of water, continue to agitate.

## WEEDS CONTROLLED

As listed for LOGIC M alone on flax *plus* these additional weeds:

Wild oats Barnyard grass Volunteer barley Volunteer wheat Green foxtail (wild millet) Persian darnel

**NOTE:** Do not apply within 15 metres of a body of water or wetland area. Do not contaminate water supply, ponds, lakes, rivers, streams and irrigation ditches by direct application, spray drift or when cleaning and rinsing spray equipment or containers.

# CANARY SEED (*Phalaris canariensis*) (for seed production)

# LOGIC M USED ALONE

**SPRAY VOLUME & PRESSURE:** Apply in NOT LESS than 50 litres of water per hectare at a pressure of 275 kPa.

**TIMING:** The crop may be treated from the 3 to 5-leaf stage.

#### APPLICATION RATE: 1.25 L/ha

#### WEEDS CONTROLLED

#### Seedlings up to 4-leaf stage

Green smartweed Pale smartweed Lady's-thumb Cow Cockle\* Redroot pigweed Flixweed Bluebur Shepherd's-purse Kochia\*\* Russian thistle\*\* Scentless chamomile\*\*\* Volunteer sunflower Volunteer rapeseed (including Canola) Night flowering catchfly Cocklebur Velvetleaf\*\*\*\* Ball mustard American nightshade

Seedlings up to 6-leaf stage Wild tomato Seedlings up to 8-leaf stage Wild buckwheat Tartary buckwheat Common buckwheat Stinkweed Wild mustard Wormseed mustard Lamb's-quarters Common ragweed Common groundsel

**Perennials: Top-growth checked** Canada thistle Perennial sow-thistle

\*In normal conditions cow cockle will be controlled up to the 4-leaf stage. Plants beyond this stage are unlikely to be controlled. \*\*Spray before plants are 5 cm high.

\*\*\*Spring annuals only.

\*\*\*\*Spray before plants are 8 cm high.

The DIRECTIONS FOR USE for the uses described in this section of the label were developed by persons other than Interprovincial Cooperative Limited under the User Requested Minor Use Label Expansion program. For these uses, Interprovincial Cooperative Limited 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.

ANNUAL CANARYGRASS	
As listed for IPCO Logic M Liquid Herbicide ALONE	
Apply in a minimum of 50 L water per hectare at a pressure of	
275 kPa by ground only.	
3 to 5 leaf stage of crop. Weeds from seedlings up to 4 leaf stage.	
Some weeds may be treated up to the 8-leaf stage.	
1.25 L/ha	
1	
Annual canarygrass seeds can be harvested for human consumption.	
Annual canarygrass is NOT to be cut for feed or grazed.	
DO NOT APPLY USING AERIAL APPLICATION EQUIPMENT	

# **SEEDLING GRASSES** (not underseeded to legumes)

NOTE: Grasses grown for seed production in the year of establishment only.

**CROPS:** Brome grass, Crested wheat grass, Intermediate wheat grass, Slender wheat grass, Tall wheat grass, Russian wild rye, Timothy, Orchard grass, Creeping red fescue, Meadow fescue, Meadow foxtail, Seedling tall fescue, Seedling meadow bromegrass, Streambank wheatgrass, and Reed canary grass.

CAUTION: Do not graze or harvest for green feed until 56 days after treatment.

# LOGIC M USED ALONE

**SPRAY VOLUME & PRESSURE:** Apply in 150 litres of water per hectare at a pressure of 275 kPa.

**TIMING:** Seedling grasses may be treated from the 2 to 4-leaf stage. Make only one application per season.

WEEDS CONTROLLED

#### APPLICATION RATE: 1.25 L/ha

## Seedlings up to 4-leaf stage Green smartweed Pale smartweed Lady's-thumb Cow Cockle\* Redroot pigweed Flixweed Bluebur Shepherd's-purse Kochia\*\* Russian thistle\*\* Scentless chamomile\*\*\* Volunteer sunflower Volunteer rapeseed (including Canola) Night flowering catchfly Cocklebur Velvetleaf\*\*\*\* Ball mustard American nightshade

# Seedlings up to 6-leaf stage Wild tomato Seedlings up to 8-leaf stage Wild buckwheat Tartary buckwheat Common buckwheat Stinkweed Wild mustard Wormseed mustard Lamb's-quarters Common ragweed Common groundsel

**Perennials: Top-growth checked** Canada thistle Perennial sow-thistle

\*In normal conditions cow cockle will be controlled up to the 4-leaf stage. Plants beyond this stage are unlikely to be controlled. \*\*Spray before plants are 5 cm high.

\*\*\*Spring annuals only.

\*\*\*\*Spray before plants are 8 cm high.

# **ESTABLISHED GRASSES** (not underseeded to legumes)

# LOGIC M USED ALONE

**CROP:** Established Timothy Grown for Seed

**SPRAY VOLUME:** Apply in 150 liters of water per hectare.

**TIMING:** Apply prior to shot blade in the seed production year. Make only one application per season.

**RATE:** 1.25 L/ha

## WEEDS CONTROLLED

As listed for LOGIC M used alone in seedling grasses.

NOTE: Rainfall within 1 hour of application may reduce effectiveness.

# LOGIC M USED ALONE

**CROP:** Established Timothy Grown for Hay

**SPRAY VOLUME:** Apply in 150 liters of water per hectare. DO NOT apply using aerial application equipment.

**TIMING:** Apply at the 3-6 leaf stage of Timothy. Apply post-emergence by ground application. Make only one application per season. Observe a PHI of 30 days.

**RATE:** 1.25 L/ha

## WEEDS CONTROLLED

As listed for LOGIC M used alone in seedling grasses.

NOTE: Rainfall within 1 hour of application may reduce effectiveness.

\*\*\*\*\*\*\*