(sleeve)

GROUP 4 HERBICIDE

# **FBN 2,4-D Ester 700 EC**

# Herbicide

CONTAINS 2,4-D EMULSIFIABLE CONCENTRATE

For use in wheat, barley, rye, field corn, pastures and non-crop land.

**COMMERCIAL** 

READ THE LABEL AND ATTACHED BOOKLET BEFORE USING

**ACTIVE INGREDIENT:** 2,4-D, present as the 2-ethylhexyl ester ... 660 g/L

REGISTRATION NO. 34857 PEST CONTROL PRODUCTS ACT



POTENTIAL SKIN SENSITIZER

**SKIN IRRITANT** 

NET CONTENTS: 1 L – Bulk

Farmer's Business Network Canada, Inc.

PO Box 5607 High River, Alberta Canada T1V 1M7 1-844-200-FARM (3276)

In case of spills, poisoning or fire, telephone emergency response number 1-613-996-6666 (24 hours a day)

#### **PRECAUTIONS:**

KEEP OUT OF REACH OF CHILDREN. Fatal or poisonous if swallowed. Potential skin sensitizer. Causes skin irritation. DO NOT get on skin. Avoid contact with skin, eyes and clothing. Wash concentrate from skin or eyes IMMEDIATELY. After use, wash hands and other exposed skin. Avoid breathing spray mist.

For crop areas (including sod farms), **DO NOT** enter or allow worker entry into treated areas during the restricted-entry interval (REI) of 12 hours. For non-crop areas (including golf courses), **DO NOT** enter or allow worker entry into treated areas until sprays have dried.

Apply only when the potential for drift beyond the area to be treated is minimal. Take into consideration wind speed, wind direction, temperature inversions, application equipment, and sprayer settings.

## **ENVIRONMENTAL PRECAUTIONS:**

This product contains a petroleum distillate which is toxic to aquatic organisms. Toxic to small mammals, birds, aquatic organisms and non-target terrestrial plants. Observe spray buffer zones specified under DIRECTIONS FOR USE.

This product will harm other broadleaved plants in the vicinity of the treatment area. If applying this product using a mechanically pressurized handgun or backpack sprayer, do not directly spray or allow the spray to drift onto ornamentals or gardens.

Do not spray exposed roots of trees and ornamentals.

**Leaching:** This product demonstrates the properties and characteristics associated with chemicals detected in groundwater. The use of this product in areas where soils are permeable, particularly where the water table is shallow, may result in groundwater contamination.

**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 application when heavy rain is forecast.

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

# PROTECTIVE CLOTHING AND EQUIPMENT:

Wear coveralls over a long-sleeved shirt, long pants, chemical-resistant gloves, socks and shoes during mixing, loading, application, clean-up and repair.

When handling more than 401 L of FBN 2,4-D Ester 700 EC per day, workers must also use a closed system. A closed system means removing a pesticide from its original container, rinsing, mixing, diluting, and transferring the pesticide through connecting hoses and couplings to prevent exposure to the pesticide.

Gloves are not required during application within a closed cab and/or cockpit.

When using a mechanically-pressurized handgun, mixers/loaders/applicators must also wear a respirator with a NIOSH-approved organic-vapour-removing cartridge (with a

prefilter) approved for pesticides, or a NIOSH-approved canister approved for pesticides when handling more than 7.5 L of per day and **CANNOT** handle more than 12 L of FBN 2,4-D Ester 700 EC per day.

#### **OPERATOR USE PRECAUTIONS:**

- Wear freshly laundered clothing and clean protective equipment daily.
- Rinse gloves before removal.
- Wash hands before eating, drinking, using tobacco or using the toilet.
- If herbicide penetrates clothing remove immediately; then wash thoroughly and put on clean clothing. Throw away clothing and other absorbent materials that have been drenched or heavily contaminated with this product's concentrate.
- After using this product, remove clothing and launder separately and promptly, and thoroughly wash hands and exposed skin with soap and water. Follow manufacturer's instructions for cleaning personal protective clothing and equipment. If no such instructions for washables are provided, use detergent and hot water. Keep and wash personal protective equipment separate from household laundry.
- After work, remove all clothing and shower using soap and water.

## FIRST AID:

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

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

# TOXICOLOGICAL INFORMATION:

DO NOT induce vomiting. This product contains petroleum distillates. Vomiting may cause aspiration pneumonia. No specific antidote. Employ supportive care. This product may cause mild irritation to the eyes. Overexposure to 2,4-D may cause coughing, burning, dizziness or temporary loss of muscle coordination. Other possible effects of overexposure include fatigue, muscle weakness or nausea. Treatment should be based on judgement of the physician in response to reactions of the patient. Treat symptomatically.

#### **EMERGENCY TELEPHONE NUMBERS:**

In case of spills, poisoning or fire, telephone emergency response number 1-613-996-6666 (24 hours a day).

For product and use information, Farmer's Business Network Canada, Inc., 1-844-200-FARM (3276).

#### STORAGE:

Store the container tightly closed away from food and feed. Maybe stored at any temperature. SHAKE WELL BEFORE USING.

#### **DISPOSAL:**

# **For Recyclable Containers:**

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/territorial requirements.

## For Returnable Containers:

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 Containers:

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.

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

## **NOTICE TO USER:**

This pest control product is to be used only in accordance with the directions on the label. It is an offence under the *PEST CONTROL PRODUCTS ACT* to use this product in a way that is inconsistent with the directions on the label.

(booklet)

GROUP 4 HERBICIDE

# **FBN 2,4-D Ester 700 EC**

# Herbicide

**CONTAINS 2,4-D EMULSIFIABLE CONCENTRATE** 

For use in wheat, barley, rye, field corn, pastures and non-crop land.

**COMMERCIAL** 

READ THE LABEL AND ATTACHED BOOKLET BEFORE USING

**ACTIVE INGREDIENT:** 2,4-D, present as the 2-ethylhexyl ester ... 660 g/L

REGISTRATION NO. 34857 PEST CONTROL PRODUCTS ACT



POTENTIAL SKIN SENSITIZER

SKIN IRRITANT

NET CONTENTS: 1 L – Bulk

Farmer's Business Network Canada, Inc.

PO Box 5607 High River, Alberta Canada T1V 1M7 1-844-200-FARM (3276)

In case of spills, poisoning or fire, telephone emergency response number 1-613-996-6666 (24 hours a day

#### **PRECAUTIONS:**

KEEP OUT OF REACH OF CHILDREN. Fatal or poisonous if swallowed. Potential skin sensitizer. Causes skin irritation. DO NOT get on skin. Avoid contact with skin, eyes and clothing. Wash concentrate from skin or eyes IMMEDIATELY. After use, wash hands and other exposed skin. Avoid breathing spray mist.

For crop areas (including sod farms), **DO NOT** enter or allow worker entry into treated areas during the restricted-entry interval (REI) of 12 hours. For non-crop areas (including golf courses), **DO NOT** enter or allow worker entry into treated areas until sprays have dried.

Apply only when the potential for drift beyond the area to be treated is minimal. Take into consideration wind speed, wind direction, temperature inversions, application equipment, and sprayer settings.

#### **ENVIRONMENTAL PRECAUTIONS:**

This product contains a petroleum distillate which is toxic to aquatic organisms. Toxic to small mammals, birds, aquatic organisms and non-target terrestrial plants. Observe spray buffer zones specified under DIRECTIONS FOR USE.

This product will harm other broadleaved plants in the vicinity of the treatment area. If applying this product using a mechanically pressurized handgun or backpack sprayer, do not directly spray or allow the spray to drift onto ornamentals or gardens.

Do not spray exposed roots of trees and ornamentals.

**Leaching:** This product demonstrates the properties and characteristics associated with chemicals detected in groundwater. The use of this product in areas where soils are permeable, particularly where the water table is shallow, may result in groundwater contamination.

**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 application when heavy rain is forecast.

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

# PROTECTIVE CLOTHING AND EQUIPMENT:

Wear coveralls over a long-sleeved shirt, long pants, chemical-resistant gloves, socks and shoes during mixing, loading, application, clean-up and repair.

When handling more than 401 L of FBN 2,4-D Ester 700 EC per day, workers must also use a closed system. A closed system means removing a pesticide from its original container, rinsing, mixing, diluting, and transferring the pesticide through connecting hoses and couplings to prevent exposure to the pesticide.

Gloves are not required during application within a closed cab and/or cockpit.

When using a mechanically-pressurized handgun, mixers/loaders/applicators must also wear a respirator with a NIOSH-approved organic-vapour-removing cartridge (with a

prefilter) approved for pesticides, or a NIOSH-approved canister approved for pesticides when handling more than 7.5 L of per day and **CANNOT** handle more than 12 L of FBN 2,4-D Ester 700 EC per day.

## **OPERATOR USE PRECAUTIONS:**

- Wear freshly laundered clothing and clean protective equipment daily.
- Rinse gloves before removal.
- Wash hands before eating, drinking, using tobacco or using the toilet.
- If herbicide penetrates clothing remove immediately; then wash thoroughly and put on clean clothing. Throw away clothing and other absorbent materials that have been drenched or heavily contaminated with this product's concentrate.
- After using this product, remove clothing and launder separately and promptly, and thoroughly wash hands and exposed skin with soap and water. Follow manufacturer's instructions for cleaning personal protective clothing and equipment. If no such instructions for washables are provided, use detergent and hot water. Keep and wash personal protective equipment separate from household laundry.
- After work, remove all clothing and shower using soap and water.

#### FIRST AID:

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

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

## **TOXICOLOGICAL INFORMATION:**

DO NOT induce vomiting. This product contains petroleum distillates. Vomiting may cause aspiration pneumonia. No specific antidote. Employ supportive care. This product may cause mild irritation to the eyes. Overexposure to 2,4-D may cause coughing, burning, dizziness or temporary loss of muscle coordination. Other possible effects of overexposure include fatigue, muscle weakness or nausea. Treatment should be based on judgement of the physician in response to reactions of the patient. Treat symptomatically.

## **EMERGENCY TELEPHONE NUMBERS:**

In case of spills, poisoning or fire, telephone emergency response number 1-613-996-6666 (24 hours a day).

For product and use information, Farmer's Business Network Canada, Inc., 1-844-200-FARM (3276).

#### **STORAGE:**

Store the container tightly closed away from food and feed. Maybe stored at any temperature. SHAKE WELL BEFORE USING.

## **DISPOSAL:**

# For Recyclable Containers:

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/territorial requirements.

#### For Returnable Containers:

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 Containers:

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.

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

## **NOTICE TO USER:**

This pest control product is to be used only in accordance with the directions on the label. It is an offence under the *PEST CONTROL PRODUCTS ACT* to use this product in a way that is inconsistent with the directions on the label.

## **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.

## RESISTANCE-MANAGEMENT RECOMMENDATIONS:

For resistance management, FBN 2,4-D Ester 700 EC is a Group 4 herbicide. Any weed population may contain or develop plants naturally resistant to FBN 2,4-D Ester 700 EC and other Group 4 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 FBN 2,4-D Ester 700 EC or other Group 4 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 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 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 groups.
- 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 Farmer's Business Network Canada, Inc. at 1-844-200-FARM (3276).

## **GENERAL USE PRECAUTIONS:**

FBN 2,4-D Ester 700 EC may cause damage to susceptible crop, ornamental, and other plants, even in minute quantities.

Avoid spray drift to any desirable vegetation. Do not spray during periods of high winds. Do not permit lactating dairy animals to graze fields within 7 days after application. Do not

graze or cut treated crops for forage until 30 days after application. Withdraw meat animals from treated fields at least 3 days before slaughter.

#### **MIXING:**

Shake well before using. To ensure even mixing, half fill the sprayer tank with clean water, add the required amount of FBN 2,4-D Ester 700 EC and agitate thoroughly. Add the remainder of the water and agitate before spraying. If the spray solution has been left standing, agitate thoroughly before use. Wash sprayer thoroughlyafter use. For containers larger than 20L: Use a transfer system that avoids open pouring when transferring the liquid concentrate from such containers into the spray tank.

# APPLICATION METHODS, EQUIPMENT AND SPRAY VOLUME:

#### GROUND APPLICATION

**Knapsack or spot treatment applications:** Mix 200 mL of product in 10 L water. Spray to wet all foliage thoroughly.

**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. Apply in 50 to 200 litres of water per hectare by ground equipment unless otherwise indicated. Higher water volumes will reduce the risk of crop injury.

#### AERIAL APPLICATION

**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. Reduce drift caused by turbulent wingtip vortices. Nozzle distribution along the spray boom length MUST NOT exceed 65% of the wing- or rotor-span. Application of this specific product must meet and/or conform to the following: Volume: Apply the recommended rate in a minimum spray volume of 30 litres of water per hectare.

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.

## **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 must wear coveralls over a long-sleeved shirt, long pants, chemical resistant gloves and goggles or face shield during mixing/loading, cleanup and repair. Follow the more stringent label precautions in cases where the operator precautions exceed the generic label recommendations on the existing ground boom label.

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

# **Product Specific Precautions**

Read and understand the entire label before opening this product. If you have questions, call the manufacturer or obtain technical advice from the distributor or your provincial agricultural representative.

#### TANK MIXES:

This product may be tank mixed with a fertilizer, a supplement, or with registered pest control products, whose labels also allow tank mixing, provided the entirety of both labels, including Directions For Use, Precautions, Restrictions, Environmental Precautions, and Spray Buffer Zones are followed for each product. In cases where these requirements differ between the tank mix partner labels, the most restrictive label must be followed. Do not tank mix products containing the same active ingredient unless specifically listed on this label.

In some cases, tank mixing pest control products can result in reduced pesticide efficacy or increased host crop injury. The user should contact Farmer's Business Network Canada, Inc. (FBN) at 1-844-200-FARM (3276) for information before applying any tank mix that is not specifically recommended on this label.

# CROPS, TIMING, RATES AND METHODS OF APPLICATION

Use the dose required to control the weeds present.

To minimize the risk of crop injury, do not exceed the recommended rate listed for the crop.

Higher rates may be required to control certain weed species. Rates above those recommended for a crop may result in significant crop injury, and should only be used when the risk of crop injury will be offset by the benefits of enhanced weed control. Apply in warm weather when the crop and weeds are growing well, and the weeds are at a susceptible stage.

Avoid application during drought conditions or during exceptionally hot weather.

#### **CROP:**

Spring Cereals (Wheat, Barley, Rye), not underseeded with legumes

# **APPLICATION TIME and RATE:**

• Prior to seeding or after seeding but prior to crop emergence:

When weeds are less than 8 cm tall and actively growing, 0.5 to 0.8 L/ha. If weeds are larger than 8 cm, or for harder-to-control weeds, up to 1.1 L/ha.

• After crop emergence:

From the 4-leaf expanded to the early flag-leaf (shot blade) stage, up to 1.1 L/ha.

#### **METHOD:**

Ground or Aerial application.

#### MAXIMUM RATE PER HECTARE PER YEAR: 1.3 L.

#### **CROP:**

Winter Cereals (Winter Wheat, Fall Rye)

# **APPLICATION TIME and RATE:**

- Prior to seeding or after seeding but prior to crop emergence:
  - When weeds are less than 8 cm tall and actively growing, 0.5 to 0.8 L/ha.
  - If weeds are larger than 8 cm, or for harder-to-control weeds, up to 1.1 L/ha.
- After crop emergence:
  - In spring, from full tillering to the shot blade stage, up to 0.8 L/ha.Do not apply during and after the flag-leaf stage.
  - Do not apply to seedling winter cereals in the fall.

#### **METHOD:**

Ground or Aerial application.

# MAXIMUM RATE PER HECTARE PER YEAR: 1.3 L.

#### **CROP:**

Field Corn

#### **APPLICATION TIME:**

• As an overall spray, before the corn is 15 cm tall (leaf extended) and/or before the6-

leaf stage. Application as an overall spray at later stages will damage the corn. For later applications (corn 15-75 cm, leaf extended), use a shielded spray or a directed spray with drop pipes. Keep spray off corn foliage.

- Do not apply within 2 weeks of silking and tasseling.
- Avoid cultivation for 2 weeks following spraying.
- Use at least 100 L/ha water.Do not add oil or surfactant.
- Do not apply more than one treatment per year.

# **METHOD:**

Ground or Aerial application.

**RECOMMENDED RATE PER HECTARE:** Up to 0.8 L.

#### **CROP:**

Established Grasses Grown for Forage and Seed Production

## **APPLICATION TIME:**

- In spring, up to the shot blade stage of the grass, or in fall, after harvest.
- Application during flower development or pollination will reduce seed yield. Use at least 100 L/ha water.
- Do not apply more than two treatments per year.

## **METHOD:**

Ground or Aerial application.

# RECOMMENDED RATE PER HECTARE:

Up to 0.8 L (crops for seed production)

Up to 1.6 L (hay or pasture crops)

#### **CROP:**

Established Pasture and Rangeland (without legumes)

# **APPLICATION TIME:**

- Apply at a time of rapid growth, usually May, June and/or September.
- Apply after pasture has been grazed or cut and weed growth has resumed.
- Spray thoroughly using 100 to 300 litres of water per hectare.
- A second treatment may be required to control perennial weeds.
- Do not apply in freshly seeded grasses and pastures until well established.
- Under conditions of good growth and adequate soil moisture, sprays can be applied up to 2 weeks before normal frost time.
- Do not apply more than two treatments per year.

# **METHOD:**

Ground or Aerial application.

**RECOMMENDED RATE PER HECTARE:** Up to 3.4 L.

## **NON-CROP USES:**

Stubble Land, Uncropped Land (i.e., roadsides, rights-of-way for transportation, rights-of-way for utility lines, airports, wastelands and industrial parks)

#### **APPLICATION TIME:**

- Apply at a time of rapid growth, usually May, June and/or September.
- Spray thoroughly using 100 to 300 litres of water per hectare.
- A second treatment may be required to control perennial weeds.
- Do not apply more than two treatments per year.
- Cultivating grain stubble and spraying after regrowth may aid in control.
- Under conditions of good growth and adequate soil moisture, sprays can be applied up to 2 weeks before normal frost time.
- When using mechanically pressurized handguns, do not handle more than 7.5 L of FBN 2,4-D Ester 700 EC/day/person without a respirator or 12 L/day/person with a respirator.

## **METHOD:**

Ground or Aerial application (stubble land and uncropped land). Ground application (roadsides, airports).

**RECOMMENDED RATE PER HECTARE:** Up to 3.4 L.

#### TURF USES:

Sod farms, and golf courses (roughs and fairways).

Use adequate spray buffer zones as specified to protect sensitive non-target vegetation.

# **APPLICATION INFORMATION:**

- This product is only effective when applied to the leaves of actively growing weeds. This product will not prevent new weeds apply only when weeds are present.
- Apply at a time of rapid growth, usually May, June and/or September, before grasses are in the flag-leaf (shot blade) stage.
- If weed populations do not warrant a broadcast application (e.g., entire lawn), consider spot treatments that target only weedy areas.
- Applications while plants are under stress, such as during hot, cold or drought conditions, will increase risk of damage to turf and can result in reduced weed control.
- Avoid mowing for several days before and after treatment. Use caution when spraying near sensitive desirable vegetation.
- Do not use on bentgrass or newly seeded areas.
- DO NOT apply to the exposed roots of trees and ornamentals.
- Do not apply if rainfall is expected, or irrigate, within 24 hours or during hot, dry periods.
- Do not allow people (other than the applicator) or pets onto the treatment area during application.

#### **METHOD:**

Ground application only. DO NOT apply by air.

Spray thoroughly using 100 to 300 litres of water per hectare.

# **MAXIMUM APPLICATION FREQUENCY:**

DO NOT apply more than two broadcast applications per season. This does not

include spot treatments.

## **RECOMMENDED RATE PER HECTARE:**

Up to 1.9 L at each application. Up to 3.8 L per year, total.

## CONTROL OF WOODY GROWTH IN NON-GRAZED AREAS:

## **APPLICATION INFORMATION:**

- Apply at time of rapid growth, usually May, June and/or September.
- Apply 3.25 to 6.78 litres of product, by ground in 1000 to 3000 litres of water per hectare.
- For aerial applications use 55 to 165 litres of spray solution per hectare.
- For oil water carrier, use 15 litres of oil mixed in 40 litres of water with continuous agitation.
- Use the lower rate for species that are more susceptible such as chokecherry, western snowberry and willow.
- Spray brush species up to 3 metres tall after foliage is well developed. Applications soon after leaves are fully open usually give the best results.
- Apply sufficient spray volume to thoroughly wet all plant parts to the ground line.
- Brush or trees above 3 metres tall should be cut close to the ground and sprayed when the regrowth is over 0.6 m tall.
- With good growing conditions and adequate soil moisture, sprays may be applied up to 2 to 3 weeks before normal frost time.
- To reduce potential drift hazard, a drift control agent may be added.
- Follow directions on the drift control agent label for the correct mixing sequence.

## **METHOD:**

Ground or aerial application.

# MAXIMUM APPLICATION FREQUENCY:

Do not apply more than two treatments per year.

When using mechanically pressurized handguns, do not handle more than 7.5 L of FBN 2,4-D Ester 700 EC/day/person without a respirator or 12L/day/person with a respirator.

## **BASAL BARK AND STUMP TREATMENT:**

#### **APPLICATION INFORMATION:**

- Controls hard-to-kill woody brush and young trees.
- The solution can be applied to the basal part of standing brush and young trees during any time of the year, prior to formation of corky bark.
- To prevent regrowth treat stumps immediately after cutting by spraying or painting stumps, exposed roots and cut surface.

- Thorough drenching is essential.
- Mix 2.5 L in 100 L of fuel oil. Spray to run-off.

# **MAXIMUM APPLICATION FREQUENCY:**

When using mechanically pressurized handguns, do not handle more than 7.5 L of FBN 2,4-D Ester 700 EC/day/person without a respirator or 12 L/day/person with a respirator.

## **WEEDS CONTROLLED:**

## **Susceptible Weeds:**

Annual sow-thistle, Bluebur (before the 4-leaf stage), Burdock (before the 4-leaf stage), Cocklebur, Daisy fleabane, False flax, False ragweed, Flixweed, Giant ragweed, Goat's-beard, Kochia, Lamb's-quarters, Mustards (except Dog and Tansy), Narrow-leaved hawk's-beard (in fall, and at the 1- to 2-leaf stage in spring), Plantain, Prickly lettuce, Ragweeds, Redroot pigweed, Russian pigweed, Russian-thistle, Shepherd's-purse, Stinging nettle, Stinkweed, Sweet Clover (seedling), Thyme-leaved spurge, Volunteer canola (all types, 1- to 4-leaf), Wild radish, Wild (prairie) sunflower.

## **Rates to Control Susceptible Weeds:**

Small seedlings (2- to 4-leaf), growing rapidly, good growing conditions: 0.5 to 0.8 L/ha. Large weeds, dry or cold weather, heavy infestations: 0.8 L/ha. Resistance increases with age.

## **Harder-To-Control Weeds:**

Curled dock (apply before 4-leaf stage), Dog mustard, Field pepper-grass, Flixweed (if treated before bolting in spring), Groundsel, Hairy galinsoga, Hawkweed, Heal-all, Knotweed (apply before the 4-leaf stage), Narrow-leaved hawk's-beard (if treated before bolting in spring), Oak-leaved goosefoot, Pineappleweed, Prostrate pigweed, Purslane, Sheep sorrel, Tansy mustard, Tumble pigweed, Velvetleaf, Volunteer canola (all types, 4-to 6-leaf).

# **Rates for Harder-To-Control Weeds:**

Small seedlings (2- to 4-leaf), growing rapidly, good growing conditions: 0.9 to 1.3 L/ha. Large weeds, dry or cold weather, heavy infestations: 1.3 L/ha. Resistance increases with age.

## Very-Hard-to-Control Weeds – Only Top Growth Control Can Be Expected:

Biennial wormwood, Blue lettuce, Bull thistle, Burdock, Buttercup, Canada thistle, Chicory, Curled dock, Dandelion, Field bindweed, Field chickweed\*, Field horsetail\*, Gumweed, Hedge bindweed, Hemp-nettle\* (if treated before the 4-leaf stage), Hoary cress, Lady's-thumb\*, Leafy spurge, Mouse-eared chickweed\*, Perennial sow-thistle, Russian knapweed, Scentless mayweed, Smartweed\*, Tartary buckwheat, Teasel, Volunteer sunflower, Wild buckwheat\*, Yellow rocket (controlled with applications before 4-leaf stage).

\* Use highest listed rate for suppression.

# **Rates for Top Growth Control of Very-Hard-To-Control Weeds:**

Small seedlings (2- to 4-leaf), growing rapidly, good growing conditions: 1.1 to 1.3 L/ha. Large weeds, dry or cold weather, heavy infestations: 1.3 L/ha. Resistance increases with age.

# TANK-MIX COMBINATION - FBN 2,4-D ESTER 700 EC + FBN FLORASULAM 50 SC

# **Crops Registered**

Spring wheat (including durum)

# **Application Directions**

For control of a wide spectrum of broadleaved weeds (see Table 2) apply FBN 2,4-D Ester 700 EC at 0.85 L/ha tank-mixed with FBN Florasulam 50 SC at 100 mL/ha. Follow all precautions, directions for use and limitations on the tank -mix partner labels. Apply when wheat is in the 3 leaf expanded stage to the 6 leaf stage. Apply when weeds are actively growing. Only weeds emerged at the time of treatment will be affected. Best results are obtained from application made to seedling weeds. Follow DIRECTIONS FOR USE - GENERAL PRECAUTIONS.

# Table 2: Weeds Controlled or Suppressed by the Tank Mixture of FBN 2,4-D Ester 700 EC + FBN Florasulam 50 SC

## Weeds Controlled:

bluebur flixweed ragweed, common kochia\*\* burdock shepherd's purse smartweed buckwheat, tartary lady's-thumb buckwheat, wild lamb's quarters sowthistle, annual canola, volunteer mustard, ball stinkweed chickweed, common mustard, wild sunflower, annual pigweed, redroot thistle, Russian cleavers plantain vetch cocklebur dandelion (seedlings and prickly lettuce wild radish overwintered rosettes)

• Including all herbicide-tolerant canola varieties.

## Weeds Suppressed:

hempnettle sowthistle, perennial (top growth control) thistle, Canada (top growth control)

## **Mixing Instructions**

1. Fill sprayer tank 1/2 full of water.

<sup>\*\*</sup> Up to 5 cm in height

- 2. Start sprayer tank agitation.
- 3. Add FBN Florasulam 50 SC
- 4. Add FBN 2,4-D Ester 700 EC and continue to agitate.
- 5. Fill the sprayer tank with sufficient water to spray 100 L of spray mixture per hectare.
- 6. Follow sprayer directions and precautions as outlined above, especially when applying next to sensitive crops (e.g. canola and legumes).
- 7. Follow sprayer clean-up directions.

# Pre-Harvest/Grazing Intervals (FBN 2,4-D Ester 700 EC + FBN Florasulam 50 SC)

- 1. Do not permit lactating dairy animals to graze fields within 7 days after application.
- 2. Do not harvest forage or cut hay within 30 days after application.
- 3. Withdraw meat animals from treated fields at least 3 days before slaughter.
- 4. Do not harvest the treated mature crop within 60 days after application.

# TANK-MIX COMBINATIONS WITH FBN 2,4-D ESTER 700 EC + FBN FLORASULAM 50 SC + OTHER HERBICIDES

# **Crops Registered**

Spring wheat (including durum)

# **Application Directions**

Follow DIRECTIONS FOR USE - GENERAL PRECAUTIONS and DIRECTIONS FOR USE – CROP USE, including minimum interval to harvest, on the FBN 2,4-D Ester 700 EC and tank-mix partner labels.

Tank mixtures of FBN 2,4-D Ester 700 EC + FBN Florasulam 50 SC with other registered graminicides for use in spring and durum wheat will provide control of broadleaved weeds and specified annual grasses. Apply when crops and weeds are actively growing. Best results are obtained from applications made to seedling weeds.

# **Mixing Instructions**

- 1. Fill sprayer tank 1/2 full of water.
- 2. Start sprayer tank agitation.
- 3. Add FBN Florasulam 50 SC (see Notes 2 and 3 below).
- 4. Add FBN 2,4-D Ester 700 EC and continue to agitate.
- 5. Add tank mix partner and continue to agitate.
- 6. Fill the sprayer tank with sufficient water to spray 100 L of spray mixture per hectare.
- 7. Follow sprayer directions and precautions as outlined above, especially when applying next to sensitive crops (e.g. canola and legumes).
- 8. Follow sprayer clean-up directions.

**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.

#### **RESTRICTED USE:**

# FOREST AND WOODLAND MANAGEMENT NATURE OF RESTRICTION:

This product is to be used only in the manner authorized. Consult local pesticide regulatory authorities about use permits that may be required.

## **CONIFER RELEASE - AERIAL APPLICATION:**

To control undesirable hardwood species in stands of fir, hemlock, spruce and pine regeneration apply FBN 2,4-D Ester 700 EC at 3.63 to 4.7 L/ha in 30 to 80 L/ha of total spray mixture. Use water or an "oil-water"\* mixture. Never allow any water or mixture containing water to get into the FBN 2,4-D Ester 700 EC or the oil spray premix. Note: FBN 2,4-D Ester 700 EC in water or oilwater sprays forms an emulsion, not a solution, and separation may take place unless sprays are agitated continuously until used up. Mechanical agitation is recommended.

To prevent conifer damage, delay spraying until all new conifer growth has hardened off, when the terminal buds feel sharp to touch.

Caution should be taken to ensure that the conifer is not in a second phase of active or "lammas" growth in late summer. Hardwoods should not have commenced fall colouration. Control of heavy suckering species such as maple, trembling aspen and balsam poplar may only be partial. Raspberries will not be controlled and may if present proliferate following removal of the hardwood overstory.

#### FOREST SITE PREPARATION - AERIAL APPLICATION:

To control mixed hardwood species on sites to be planted to conifers, use 4.7 to 6.78 litres of FBN 2,4-D Ester 700 EC in 30 to 100 litres of total spray mixture per hectare. Apply as a uniform spray when the foliage is well developed and the brush is actively growing. Under conditions of good growth and high soil moisture, sprays can be used 2 to 3 weeks before normal frost time. Do not apply more than two treatments per year. For best results use a 10% oil-water\* mixture. **NOTE:** When preparing sites for planting do not plant conifers before spraying as the conifers present at the time of spraying may be injured or killed.

To reduce potential drift hazard on non-crop locations, a drift control agent may be added. Follow all directions on the drift control agent label for the correct mixing sequence.

\* To prepare the "oil-water" mixture add the FBN 2,4-D Ester 700 EC to the oil in a separate container. With vigorous agitation 1 litre of FBN 2,4-D Ester 700 EC will emulsify up to 10 litres of oil in 100 litres of spray mixture. Start running the water into the empty spray tank, then slowly add the premix with continuous agitation. All the premix should be in the tank by the time 1/3 of the water is in. If the premix is put in the tank without any water, the first water added may form a thick "invert" (water in oil) emulsion which will be hard to break.

#### **USE PRECAUTIONS:**

With aircraft, uniform coverage can be obtained and drift minimized by using 235 kPa spray pressure or less at the nozzle, by using nozzles directed straight back, by using a spray boom no larger than 3/4 the wing span of the aircraft and by spraying when wind velocity is less than 8 km/h.

BEFORE AERIAL APPLICATION TO FORESTS consult the most recent provincially approved topographic maps of the area to be treated (1:50 000) or more up-to-date information (e.g. GPS systems) to identify sensitive aquatic habitats. Sensitive aquatic habitats include:(a) All running and standing water bodies, including impoundments, beaver pond sand bog ponds, that appear on the map or GPS system;(b) Running and standing water bodies that do not appear on the map or GPS system, but are visible from the air.

#### **SPRAY BUFFER ZONES:**

A spray buffer zone is NOT required for:

- uses with hand-held application equipment permitted on this label,
- low-clearance hooded or shielded sprayers that prevent spray contact with crop, fruit or foliage,
- soil drench.

For application to rights-of-way, spray buffer zones for protection of sensitive terrestrial habitats are not required; however, the best available application strategies which minimize off-site drift, including meteorological conditions (e.g., wind direction, low wind speed) and spray equipment (e.g., coarse droplet sizes, minimizing height above canopy), should be used. Applicators must, however, observe the specified spray buffer zones for protection of sensitive aquatic habitats.

The spray buffer zones specified in the tables 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 Application	Crop	Spray Buffer Zones (metres) Required for the Protection of:					
ripplication		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	Golf courses, turf	1	0	1	0	1	

sprayer*	Field crops (wheat, barley, rye, field corn)			1	1	1	1	1
	Grasslands, crop stubble, pastures, rangelands, non- cropland (including rights-of- way** and brush control)		1	1	1	1	2	
Aerial	Field crops (wheat, barley, field corn)		Fixed wing	10	0	1	0	45
			Rotary wing	10	0	1	0	40
	Grasslands, pastures, rangeland, fallowland and crop stubble		Fixed wing	15	0	1	0	60
			Rotary wing	15	0	1	0	50
	Non-cropland (including rights-of- way** and brush control)	3.4 L/ha	Fixed wing	70	0	1	0	150**
			Rotary wing	35	0	1	0	80**
		6.78 L/ha	Fixed wing	125	1	15	1	225**
			Rotary wing	50	1	5	1	100**
	Forestry (site preparation)	3.4 L/ha	Fixed wing	175	0	1	0	NR
			Rotary wing	95	0	1	0	NR
		4.7 L/ha	Fixed wing	225	1	1	0	NR
			Rotary wing	125	1	1	0	NR
		6.8 L/ha	Fixed wing	350	1	20	1	NR
			Rotary wing	175	1	10	1	NR

NR = Not required

<sup>\*</sup> For field sprayer application, spray buffer zones can be reduced with the use of drift reducingspray shields. When using a spray boom fitted with a full shield (shroud, curtain) that extends to the crop canopy, the labelled spray 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 spray buffer zone can be reduced by 30%.

<sup>\*\*</sup> Spray buffer zones for the protection of terrestrial habitats are not required for use on rights-of-way including railroad ballast, rail and hydro rights-of-way, utility

easements, roads, and training grounds and firing ranges on military bases.

When tank mixes are permitted, 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.