Container label

Group 6 Herbicide

## **Starbuck**

## EMULSIFIABLE CONCENTRATE SELECTIVE WEEDKILLER

## CONTAINS BROMOXYNIL

For use in WHEAT (Spring, Durum and Winter), BARLEY, OATS, FLAX (including low linolenic acid varieties), CORN, FALL RYE, CANARY GRASS (for seed production), TRITICALE, GARLIC, ONION (dry bulb only), CARROTS, SEEDLING ALFALFA, ESTABLISHED ALFALFA (for seed production only), and SEEDLING GRASSES, FORAGE AND GRAIN SORGHUM, FIELD CORN, FORAGE MILLET, GRAIN PEARL MILLET as a pre-seed/pre-plant application prior to planting CANOLA and ZERO TILL

#### COMMERCIAL

**ACTIVE INGREDIENT:** BROMOXYNIL (present as the octanoate ester)...240 g/L

**REGISTRATION NO. 33919** 

#### **POISON**

PEST CONTROL PRODUCTS ACT



WARNING

**POISON** 

## **EYE IRRITANT**

READ THE LABEL AND ATTACHED BOOKLET BEFORE USING

WINFIELD UNITED CANADA, ULC 101-302 Wellman Lane Saskatoon, SK S7T-0J1 1-888-975-4769

IN CASE OF SPILLS, POISONING OR FIRE TELEPHONE EMERGENCY RESPONSE NUMBER 1-800-424-9300 (24 HOURS A DAY).

**NET CONTENTS: 9.7 LITRES** 

#### **PRECAUTIONS:**

#### **KEEP OUT OF REACH OF CHILDREN.**

Causes eye irritation, DO NOT get in eyes. Avoid contact with skin and clothing. Harmful or fatal if swallowed. Store the container tightly closed away from seeds, fertilizer, plants and foodstuffs. Wash concentrate from skin or eyes immediately.

Avoid breathing spray mist. After use wash hands and other exposed skin. Avoid spray drift onto crops other than those recommended.

All handlers must wear coveralls over a long-sleeved shirt and long pants. In addition, wear chemical-resistant gloves, socks, chemical resistant footwear and a chemical-resistant apron during mixing/loading activities. Wear goggles or face shield during mixing/loading. Chemical-resistant gloves should be worn during repair and clean-up activity.

DO NOT enter or allow worker entry into treated areas during the restricted-entry interval (REI) of 24 hours unless specified in the following table:

CROP	Post-Application Activity	REI
Garlic	Irrigation, handset	2 days
	All other activities	24 hours
	Irrigation, handset	5 days
Sweet Corn	Harvest, hand	20 days
	All other activities	24 hours

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.

If this product is to be used on a commodity that may be exported to the U.S. and you require information on acceptable residue levels in the U.S. contact Winfield United Canada, ULC.

This product contains a petroleum distillate which is moderately to highly toxic to aquatic organisms. Avoid contamination of aquatic systems during application. DO NOT contaminate these systems through direct application, disposal of waste or cleaning equipment. Avoid contamination of ponds, streams, rivers and other water sources.

Pre-harvest grazing intervals (wheat, barley, oats, forage sorghum, forage millet and seedling alfalfa): Do not use treated crops for grazing of livestock or green feed until 30 days after application of this product unless otherwise stated on the label. Do not cut treated crops for forage until 30 days after application of this product.

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.

**CAUTION:** Do not graze other treated crops or cut for feed unless specified above; sufficient data are not available to support such use.

#### **ENVIRONMENTAL PRECAUTIONS:**

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

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

This product contains a petroleum distillate which is moderately to highly toxic to aquatic organisms. Avoid contamination of aquatic systems during application. DO NOT contaminate these systems through direct application, disposal of waste or cleaning equipment.

Avoid contamination of ponds, streams, rivers and other water sources.

TOXIC to aquatic organisms and non-target terrestrial plants. Observe spray buffer zones specified under DIRECTIONS FOR USE.

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 strip between the treated area and the edge of the water body.

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

**If on skin or clothing:** Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes. Call a poison control centre or doctor for treatment advice.

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

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

#### **TOXICOLOGICAL INFORMATION:**

This product contains petroleum distillates. Vomiting may cause aspiration pneumonia.

## **STORAGE CONDITIONS:**

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

This STARBUCK formulation will solidify at temperatures below -20°C but will become useable again at temperatures above 0°C. Insecticides and fungicides should be segregated from herbicides so as to prevent the possibility of cross-contamination.

SHAKE WELL BEFORE USING.

#### **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.

## **DISPOSAL (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.

#### **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.

Booklet

Group 6 Herbicide

## **STARBUCK**

## EMULSIFIABLE CONCENTRATE SELECTIVE WEEDKILLER

#### CONTAINS BROMOXYNIL

For use in WHEAT (Spring, Durum and Winter), BARLEY, OATS, FLAX (including low linolenic acid varieties), CORN, FALL RYE, CANARY GRASS (for seed production), TRITICALE, GARLIC, ONION (dry bulb only), CARROTS, SEEDLING ALFALFA, ESTABLISHED ALFALFA (for seed production only), and SEEDLING GRASSES, FORAGE AND GRAIN SORGHUM, FIELD CORN, FORAGE MILLET, GRAIN PEARL MILLET as a pre-seed/pre-plant application prior to planting and ZERO TILL

## **COMMERCIAL**

**ACTIVE INGREDIENT:** BROMOXYNIL (present as the octanoate ester)...240 g/L

**REGISTRATION NO. 33919** 

PEST CONTROL PRODUCTS ACT



WARNING

**POISON** 

**EYE IRRITANT** 

READ THE LABEL AND ATTACHED BOOKLET BEFORE USING

WINFIELD UNITED CANADA, ULC 101-302 Wellman Lane Saskatoon, SK S7T-0J1 1-888-975-4769

IN CASE OF SPILLS, POISONING OR FIRE TELEPHONE EMERGENCY RESPONSE NUMBER 1-800-535-5053 (24 HOURS A DAY).

**NET CONTENTS:** 9.7 LITRES

#### **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.

**Sprayer**: Wash the tank and clean all filters, screens and tips. Select nozzle tips to apply the recommended volume of water per hectare. Flood jet type tips are not recommended. Adjust boom height to ensure uniform coverage of weeds. For ground application, spray at 5-10 km/h. 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 STARBUCK and agitate thoroughly. Fill the tank and agitate again before use.

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

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

## **AERIAL APPLICATION (wheat and barley only):**

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 rate 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.

## **Aerial 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 contaminate irrigation/drinking water supplies or aquatic habitats by cleaning of equipment or disposal of wastes.

Do not apply to any body of water. Avoid drifting of spray onto any body of water or non-target areas. Specified spray 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.

Avoid application of this product when winds are gusty.

DO NOT apply when wind speed is greater than 16 km/h at flying height at the site of application.

DO NOT apply with spray droplets smaller than the American Society of Agricultural Engineers (ASAE) medium classification.

To reduce drift caused by turbulent wingtip vortices, the nozzle distribution along the spray boom length MUST NOT exceed 65% of the winspan or rotorspan.

## **Aerial Application 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 chemical resistant gloves, coveralls and goggles or face shield during mixing/loading, cleanup and repair. Follow the more stringent label precautions in cases where the operator precautions exceed the generic label recommendations on the existing ground boom label.

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

Product Specific Precautions: Read and understand the entire label before opening this product. If you have questions, call WINFIELD UNITED CANADA, ULC at 1-888-975-4769 or obtain technical advice from the distributor or your provincial agricultural representative.

Application of this specific product must meet and/or conform to the following:

**Volume**: STARBUCK plus either MCPA or 2,4-D 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, green or pale smartweed, hemp-nettle, redroot pigweed or Canada thistle, a volume rate of 40 L/ha is recommended.

#### **HERBICIDE RESISTANCE MANAGEMENT:**

For resistance management, STARBUCK is a Group 6 herbicide. Any weed population may contain or develop plants naturally resistant to STARBUCK and other Group 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 STARBUCK or other Group 6 herbicides within a growing season (sequence) or among growing seasons with different herbicide groups that control the same weeds in a field.
- Use tank mixtures with herbicides from a different group when such use is permitted. To delay resistance, the less resistance-prone partner should control the target weed(s) as effectively as the more resistance-prone partner.
- Herbicide use should be based on an integrated weed management program that includes scouting, historical information related to herbicide use and crop rotation, and considers tillage (or other mechanical control methods), cultural (for example, higher crop seeding rates; precision fertilizer application method and timing to favour the crop and not the weeds), biological (weed-competitive crops or varieties) and other management practices.

- Monitor weed populations after herbicide application for signs of resistance development (for
  example, only one weed species on the herbicide label not controlled). If resistance is suspected,
  prevent weed seed production in the affected area if possible by an alternative herbicide from a
  different group. Prevent movement of resistant weed seeds to other fields by cleaning harvesting
  and tillage equipment when moving between fields, and planting clean seed.
- Have suspected resistant weed seeds tested by a qualified laboratory to confirm resistance and identify alternative herbicide options.
- Contact your local extension specialist or certified crop advisors for any additional pesticide resistance-management and/or integrated weed-management recommendations for specific crops and weed biotypes.
- For further information or to report suspected resistance, contact your local WINFIELD UNITED CANADA, ULC representative.

## **Spray Buffer zones:**

Use of the following spray methods or equipment do not require a buffer zone: hand-held or backpack sprayer, inter-row hooded sprayer, spot treatment, soil drench and soil incorporation.

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.

	Crop		Spray Buffer Zones (meters) Required for the Protection of:				
Method of Application				er Habitat of pths:		e/Marine of Depths:	Terrestrial Habitat
			Less than 1 m	Greater than 1 m	Less than 1 m	Greater than 1 m	Парісас
Field sprayer	All crops		1	1	1	1	1
Aerial	Oats	Fixed wing	15	2	1	1	50
	Oats	Rotary wing	15	1	1	1	45
	Barley and	Fixed wing	20	5	1	1	55
	wheat	Rotary wing	20	3	1	1	45

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

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.

#### PRECAUTIONS:

#### KEEP OUT OF REACH OF CHILDREN.

Causes eye irritation, DO NOT get in eyes. Avoid contact with skin and clothing. Harmful or fatal if swallowed. Store the container tightly closed away from seeds, fertilizer, plants and foodstuffs. Wash concentrate from skin or eyes immediately. Wear goggles or face shield during mixing/loading.

Avoid breathing spray mist. After use wash hands and other exposed skin. Avoid spray drift onto crops other than those recommended.

All handlers must wear coveralls over a long-sleeved shirt and long pants. In addition, wear chemical-resistant gloves, socks, chemical resistant footwear and a chemical-resistant apron during mixing/loading activities. Wear goggles or face shield during mixing/loading. Chemical-resistant gloves should be worn during repair and clean-up activity. 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.

If this product is to be used on a commodity that may be exported to the U.S. and you require information on acceptable residue levels in the U.S. contact WINFIELD UNITED CANADA, ULC.

This product contains a petroleum distillate which is moderately to highly toxic to aquatic organisms. Avoid contamination of aquatic systems during application. DO NOT contaminate these systems through direct application, disposal of waste or cleaning equipment.

Avoid contamination of ponds, streams, rivers and other water sources.

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.

**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) of 24 hours unless specified in the following table:

CROP	Post-Application Activity	REI
Garlic	Irrigation, handset	2 days
	All other activities	24 hours
	Irrigation, handset	5 days
Sweet Corn	Harvest, hand	20 days
	All other activities	24 hours

**Pre-harvest grazing intervals** (wheat, barley, oats, forage sorghum, forage millet and seedling alfalfa): Do not use treated crops for grazing of livestock or green feed until 30 days after application of STARBUCK unless otherwise stated on the label. Do not cut treated crops for forage until 30 days after application of this product.

**CAUTION**: Do not graze other treated crops or cut for feed unless specified above; sufficient data are not available to support such use.

#### **ENVIRONMENTAL PRECAUTIONS:**

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

This product contains a petroleum distillate which is moderately to highly toxic to aquatic organisms. Avoid contamination of aquatic systems during application. DO NOT contaminate these systems through direct application, disposal of waste or cleaning equipment.

Avoid contamination of ponds, streams, rivers and other water sources.

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

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 strip between the treated area and the edge of the water body.

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

**If on skin or clothing**: Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes. Call a poison control centre or doctor for treatment advice.

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

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

#### **TOXICOLOGICAL INFORMATION:**

This product contains petroleum distillates. Vomiting may cause aspiration pneumonia.

#### **STORAGE CONDITIONS:**

Store the container tightly closed away from seeds, fertilizer, plants and foodstuffs. This product formulation will solidify at temperatures below -20°C but will become useable again at temperatures above 0°C. Insecticides and fungicides should be segregated from herbicides so as to prevent the possibility of cross-contamination.

#### SHAKE WELL BEFORE USING.

#### **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.

## **DISPOSAL (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.

## **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:**

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

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

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.

## WHEAT (spring, durum and winter — not underseeded to legumes)

	Spray volume and pressure	Timing	Application rate
STARBUCK used alone	Apply in 100 L water per hectare at a pressure of 275 kPa.	Spring wheat 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 begins to the early flag leaf stage in the spring.	1.2 - 1.4 L/ha. (The 9.7 L container treats 7.18.3 ha.)  If weeds are beyond the leaf stages indicated on under adverse growing conditions, use of the higher recommended rate will improve control.
STARBUCK + MCPA	Apply in 50-100 L water per hectare at a pressure of 275 kPa.	Spring 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 begins to the early flag leaf stage in the spring.	Spring wheat: STARBUCK at 1.2 L/ha tank-mixed with 275-550 g active ingredient MCPA per hectare where indicated.  Winter wheat: STARBUCK at 1.2 L/ha can be tank-mixed with 275 g active ingredient MCPA per hectare. Refer to table at end of booklet for correct volume of MCPA.  (The 9.7 L container of STARBUCK treats 8.3 ha.)
STARBUCK + 2,4-D	Apply in 100 L water per hectare at a pressure of 275 kPa.	Spring and winter wheat may be treated from the 4-leaf until the early flag leaf stage. Application before the 4-leaf stage may injure the crop.	Note: MCPA-K is preferred for hemp-nettle 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 STARBUCK.  STARBUCK at 1.2 L/ha tank-mixed with 275 - 420 g active ingredient 2,4-D per hectare. Refer to the table at end of booklet for correct volume of 2,4-D.  (The 9.7 L container of STARBUCK treats 8.3 ha.)  Note: 2,4-D ester is preferred although other formulations may be used. Add 2,4-D to the spray tank first, agitate and then add STARBUCK. Refer to the 2,4-D label for precautions and limitations.
STARBUCK + Achieve Liquid Herbicide	Apply in 100 L water per hectare at a pressure of 275 kPa.	Durum wheat, spring wheat and winter wheat may be treated from the 2-leaf until the early flag leaf stage of growth.	STARBUCK at 1.2 L/ha tank mixed with Achieve Liquid Herbicide at 0.5 L/ha. 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).  Note: Follow all mixing and spraying

Spray volume and pressure	Timing	Application rate
		precautions, limitations and timing recommendations on the Achieve Liquid Herbicide label.
		Note: STARBUCK and Achieve Liquid Herbicide tank-mixtures can be used in all varieties of spring wheat (including Canada Western red spring, amber durum, soft white spring, extra strong and Canada prairie spring) and red winter wheat.

## WHEAT (spring, Durum and Winter) – Weeds Controlled

	WEEDS CONTROLLED
STARBUCK used	Seedlings up to 4-leaf stage:
alone	Green smartweed, pale smartweed, lady's-thumb, wild mustard*, kochia**, cow cockle*, Russian thistle**, stinkweed*, cocklebur, common ragweed, pigweed*, velvetleaf***, bluebur, American nightshade.
	Seedlings up to 8-leaf stage: Wild buckwheat, Tartary buckwheat, common buckwheat, common groundsel, lamb's-quarters.
	* In normal conditions will be controlled up to the 4-leaf stage. Plants beyond this stage are unlikely to be controlled. The higher rate generally gives better results.  ** Spray before plants are 5 cm high.  *** Spray before plants are 8 cm high.
STARBUCK	As listed for STARBUCK used alone plus these additional weeds:
+	Seedlings up to 4-leaf stage: Redroot pigweed, flixweed, shepherd's purse, scentless chamomile*, volunteer sunflower,
МСРА	volunteer rapeseed/ canola**, hemp-nettle***, night flowering catchfly, Canada thistle***, perennial sow-thistle****, ball mustard.
	Seedlings up to 8-leaf stage: Stinkweed, common ragweed, wild mustard, wormseed mustard.
	* Spring annuals only. Will not control overwintered weeds.  ** For high infestations tank-mix 550 g active ingredient MCPA per ha.  *** Tank-mix 550 g active ingredient MCPA per ha. Plants beyond the 4-leaf stage are not likely to be controlled. Plants emerging after application, which is often the case on peat-type soils, will not be controlled.  **** Top growth control.
STARBUCK	As listed for STARBUCK used alone plus these additional weeds: Seedlings up to 4-leaf stage: Redroot pigweed, night flowering catchfly, flixweed*, shepherd's purse, volunteer sunflower, ball
+	mustard.
2,4-D	Seedlings up to 8-leaf stage: Stinkweed*, wild mustard.
	* The higher rate of 2,4-D is recommended for larger overwintered weeds (fall rosettes).
STARBUCK	

	WEEDS CONTROLLED			
+	As listed for STARBUCK used alone plus wild oats, volunteer oats, green foxtail (wild millet), yellow foxtail, barnyard grass and persian darnel.			
Achieve Liquid Herbicide				

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

	Spray volume and pressure	Timing	Application rate
STARBUCK used alone	Apply in 100 L water per hectare at a pressure of 275 kPa.	The crop may be treated from the 2-leaf until the early flag leaf stage.	1.2-1.4 L/ha. (The 9.7 L container of STARBUCK treats 7.1-8.3 ha.) If weeds are beyond the leaf stages indicated or under adverse growing conditions, use of the higher recommended rate will improve control.
STARBUCK + MCPA	Apply in 50-100 L water per hectare at a pressure of 275 kPa.	The crop may be treated from the 2-leaf until the early flag leaf stage.	STARBUCK at 1.2 L/ha tank-mixed with 275-550 g active ingredient MCPA per hectare where indicated. Refer to the table at end of booklet for correct volume of MCPA. (The 9.7 L container of STARBUCK treats 8.3 ha.)
			Note: MCPA-K is preferred for hemp-nettle 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 STARBUCK.
STARBUCK + 2,4-D		The crop may be treated from the 4-leaf until the early flag leaf stage.  Application before the 4-leaf stage may result in injury to the crop.	STARBUCK at 1.2 L/ha tank-mixed with 275-420 g active ingredient 2,4-D per hectare. Refer to table at end of booklet for correct volume of 2,4-D. (The 9.7 L container of STARBUCK treats 8.3 ha.)
			Note: 2,4-D ester is preferred although other formulations may be used. Add 2,4-D to the spray tank first, agitate and then add STARBUCK. Refer to the 2,4-D label for precautions and limitations.
STARBUCK + Achieve Liquid Herbicide	Apply in 100 L water per hectare at a pressure of 275 kPa.	Barley may be treated from the 2-leaf until the early flag leaf stage of growth. Note: STARBUCK and Achieve Liquid Herbicide tank-mixtures can be used	STARBUCK at 1.2 L/ha tank-mixed with Achieve Liquid Herbicide at 0.5 L/ha. 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).
		in all 2 or 6 row varieties of barley (malting and feed varieties).	Note: Follow all mixing and spraying precautions, environmental precautions, limitations and timing recommendations on the Achieve Liquid Herbicide label.

## **BARLEY – WEEDS CONTROLLED**

	WEEDS CONTROLLED			
STARBUCK	Seedlings up to 4-leaf stage:			
STANDOCK	Green smartweed, pale smartweed, lady's-thumb, wild mustard*, kochia**, cow cockle*, Russian			
used	thistle**, stinkweed*, cocklebur, common ragweed, pigweed*, velvetleaf***, bluebur, American			
alone	nightshade.			
dione	ingricinate.			
	Seedlings up to 8-leaf stage:			
	Wild buckwheat, Tartary buckwheat, common buckwheat, common groundsel, lamb's-quarters.			
	Julia Sasiannead, Tartar , Sasiannead, Common Sasiannead, Common groundsch, Iamas S quarters			
	* In normal conditions, will be controlled up to the 4-leaf stage. Plants beyond this stage are			
	unlikely to be controlled. The higher rate generally gives better results.			
	** Spray before plants are 5 cm high.			
	*** Spray before plants are 8 cm high.			
STARBUCK	As listed for STARBUCK used alone plus these additional weeds: Seedlings up to 4-leaf stage:			
0.7				
+	Redroot pigweed, flixweed, shepherd's purse, scentless chamomile*, volunteer sunflower,			
	volunteer rapeseed/canola**, hemp-nettle***, night flowering catchfly, Canada thistle****,			
МСРА	perennial sow-thistle****, ball mustard.			
	Seedlings up to 8-leaf stage:			
	Stinkweed, common ragweed, wild mustard, wormseed mustard.			
	* Spring annuals only. Will not control overwintered weeds.			
	** For high infestations tank-mix 550 g active ingredient MCPA per ha.			
	*** Tank-mix 550 g active ingredient MCPA per ha. Plants beyond the 4-leaf stage are not likely to			
	be controlled. Plants emerging after application, which is often the case on peat-type soils, will not			
	be controlled.			
	**** Top growth control.			
STARBUCK	As listed for STARBUCK used alone plus these additional weeds: Seedlings up to 4-leaf stage:			
	Redroot pigweed, night flowering catchfly, flixweed*, shepherd's purse, volunteer sunflower, ball			
+	mustard.			
245	Coodlings up to 0 loof stores			
2,4-D	Seedlings up to 8-leaf stage:			
	Stinkweed*, wild mustard.			
	* The higher rate of 2,4-D is recommended for larger over wintered weeds (fall rosettes).			
STARBUCK	As listed for STARBUCK used alone plus wild oats and green foxtail (wild millet).			
STANDUCK	As listed for STARDOCK used alone plus wild oats and green foxial (wild fillilet).			
+				
'				
Achieve Liquid				
Herbicide				
. ICI DICIGC				

## OATS (not underseeded to legumes)

	Spray volume and pressure	Timing	Application rate
STARBUCK	Apply in 100 L water per hectare at a pressure of	The crop may be treated from the 2-leaf until the	1.2-1.4 L/ha. (This 9.7 L container treats 7.18.3 ha.) If weeds are beyond the leaf
used alone	275 kPa.  DO NOT apply using aerial application equipment.	early flag leaf stage.	stages indicated or under adverse growing conditions, use of the higher recommended rate will improve control.
STARBUCK	Apply in 50-100 L water per hectare at a pressure	The crop may be treated from the 2-leaf until the	STARBUCK at 1.2 L/ha tank-mixed with 275-550 g active ingredient MCPA per
+	of 275 kPa.	early flag leaf stage.	hectare where indicated. Refer to the table at end of booklet for correct volume of
MCPA	DO NOT apply using aerial application equipment.		MCPA. (The 9.7 L container of STARBUCK treats 8.3 ha).
			Note: MCPA-K is preferred for hemp-nettle 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 STARBUCK.

## OATS – WEEDS CONTROLLED

	WEEDS CONTROLLED			
STARBUCK Used alone	Seedlings up to 4-leaf stage: Green smartweed, pale smartweed, lady's-thumb, wild mustard*, kochia**, cow cockle*, Russian thistle**, stinkweed*, cocklebur, common ragweed, pigweed*, velvetleaf***, bluebur, American			
	nightshade.			
	Seedlings up to 8-leaf stage: Wild buckwheat, Tartary buckwheat, common buckwheat, common groundsel, lamb's-quarters.			
	* In normal conditions, will be controlled up to the 4-leaf stage. Plants beyond this stage are unlikely to be controlled. The higher rate generally gives better results.  ** Spray before plants are 5 cm high.			
	*** Spray before plants are 8 cm high.			
STARBUCK	As listed for STARBUCK used alone plus these additional weeds:			
+	Seedlings up to 4-leaf stage: Redroot pigweed, flixweed, shepherd's purse, scentless chamomile*, volunteer sunflower,			
MCPA	volunteer rapeseed/canola**, hemp-nettle***, night flowering catchfly, Canada thistle***, perennial sow-thistle***, ball mustard.			
	Seedlings up to 8-leaf stage: Stinkweed, common ragweed, wild mustard, wormseed mustard.			
	* Spring annuals only. Will not control overwintered weeds.			
	** For high infestations tank-mix 550 g active ingredient MCPA per ha.  *** Tank-mix 550 g active ingredient MCPA per ha. Plants beyond the 4-leaf stage are not likely to be controlled. Plants emerging after application, which is often the case on			
	peat-type soils, will not be controlled.  **** Top growth control.			

## **CORN** (field and sweet)

Corn may be treated with a broadcast post-emergence application at the recommended rate from the 4-leaf stage onward. To ensure adequate coverage of weeds, drop pipes should be used when corn is beyond the 8-leaf stage or for a second application for later germinating weeds such as cocklebur and velvetleaf. Minimum re-treatment interval for the second application is 21 days. The pre-harvest interval (PHI) is 20 days.

days.			
	Spray volume and pressure	Timing	Application rate
STARBUCK	Apply in 200-300 L water per hectare at	Corn may be treated with a broadcast post-emergence	1.2-1.4 L/ha. (The 9.7 L container treats 7.18.3 ha.)
Used alone	a pressure of 275 kPa.	application at the recommended rate from the 4-leaf stage onward. To ensure adequate	Use of the higher recommended rate will improve control when heavy infestations of
	DO NOT apply using aerial application equipment.	coverage of weeds, drop pipes should be used when corn is	weeds are present. STARBUCK is a contact herbicide thus good coverage of the weeds is essential.
		germinating weeds such as cocklebur and velvetleaf.	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). DO NOT ADD OIL OR SURFACTANT.
STARBUCK +	Apply in 200-300 L water per hectare at a pressure of 275 kPa.	Corn should be treated from the 4- to 8-leaf stage. Refer to the ATRAZINE label for limitations on grassy weeds.	STARBUCK at 1.2 L/ha tank-mixed with ATRAZINE at 1.1-1.5 kg active ingredient per hectare. Add ATRAZINE to the spray tank first, agitate well, and then add
ATRAZINE	DO NOT apply using aerial application equipment.		STARBUCK. (The 9.7 L container of STARBUCK treats 8.3 ha.)
STARRUGU			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). DO NOT ADD OIL OR SURFACTANT, OR USE ATRAZINE FORMULATIONS CONTAINING OIL. Refer to the ATRAZINE label for instructions, precautions and limitations (especially on crop restrictions the following year).
+ LOW RATE ATRAZINE	Apply in 200-300 L water per hectare at a pressure of 275 kPa.  DO NOT apply using	4- to 8-leaf stage.	STARBUCK at 1.2-1.4 L/ha tank-mixed with ATRAZINE at 0.5 kg active ingredient per hectare. Add ATRAZINE to the spray tank first, agitate well and then add STARBUCK. (The 9.7 L container of STARBUCK treats 7.1-8.3 ha.)
	aerial application equipment.		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).  DO NOT ADD OIL OR SURFACTANT, OR
			USE ATRAZINE FORMULATIONS CONTAINING OIL.

## **CORN** (field and sweet) – **WEEDS CONTROLLED**

	WEEDS CONTROLLED
STARBUCK	Seedlings up to 4-leaf stage: Green smartweed, pale smartweed, lady's-thumb, wild mustard*, kochia*, cow cockle*, Russian
Used alone	Thistle**, stinkweed*, cocklebur, common ragweed, pigweed*, velvetleaf***, bluebur, American nightshade.
	Seedlings up to 8-leaf stage:
	Wild buckwheat, Tartary buckwheat, common buckwheat, common groundsel, lamb's-quarters.
	* In normal conditions, will be controlled up to the 4-leaf stage. Plants beyond this stage are unlikely
	to be controlled. The higher rate generally gives better results.
	** Spray before plants are 5 cm high.
	*** Spray before plants are 8 cm high.
STARBUCK	As listed for STARBUCK used alone plus weeds as indicated on the ATRAZINE label, and when Atrazine is applied at 1.5 kg active ingredient per hectare, bur cucumber seedling in the 1 to 4-leaf stage.
+	
ATRAZINE	
STARBUCK	As listed for STARBUCK used alone plus:
	Seedlings up to the 6-leaf stage:
+	Redroot pigweed (triazine susceptible), velvetleaf*.
	Seedlings up to the 8-leaf stage:
LOW RATE	Common ragweed.
ATRAZINE	
	* Spray before weeds reach 10 cm in height.

## FIELD CORN (do not use on sweet corn)

	Spray volume and pressure	Timing	Application rate
STARBUCK +  BANVEL,  BANVEL II  or  Oracle Dicamba  Agricultural  Herbicide	pressure Apply in 200-300 L water per hectare at a pressure of 275 kPa.	Field corn should be treated from the 4- to 6-leaf stage as an overall broadcast treatment. Drop pipes should be used when applying to corn over the 6-leaf stage and up to 50 cm; direct drop pipe nozzles on the weeds beneath the corn leaves. Apply no later than 2 weeks prior to tassel emergence and do not apply to corn over 50 cm in height.	STARBUCK at 1.2 L/ha tank-mixed with BANVEL, BANVEL II or Oracle Dicamba Agricultural Herbicide at 290 mL/ha.  Add STARBUCK to the spray tank first, agitate well and then add BANVEL, BANVEL II or Oracle Dicamba Agricultural Herbicide.  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).  Refer to the BANVEL, BANVEL II or Oracle Dicamba Agricultural Herbicide labels for instructions, precautions
			and limitations. DO NOT ADD OIL OR SURFACTANT.

## FIELD CORN – WEEDS CONTROLLED

	WEEDS CONTROLLED
BANVEL, BANVEL II	As listed for STARBUCK used alone plus: Seedlings up to
or	To listed for on the contact dione plast becausings up to
Oracle Dicamba	the 6-leaf stage:
Agricultural	Redroot pigweed and common ragweed including triazine resistant strains.
Herbicide	

## STARBUCK + ACCENT 75 DF + NON-IONIC SURFACTANT:

## **DIRECTIONS FOR USE:**

## FIELD CORN (PRAIRIE PROVINCES)

## NOTE TO USER: READ THE FOLLOWING BEFORE USING THIS PRODUCT FOR THE INDICATED SPECIAL USE APPLICATION:

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

## FIELD CORN (PRAIRIE PROVINCES)

	Spray volume and	Timing	Application rate
	pressure		
STARBUCK	Apply in a minimum of	Apply as a single post-emergent	STARBUCK at 1.2 L/ha tank-mixed with
	100 L water per hectare	spray. Apply post-emergence to	ACCENT 75 DF at 33.4 g/ha and a
+	at a pressure of 275 kPa	corn when at the 4- to 8-leaf	recommended non-ionic surfactant, either
	by ground only.	stage (2-6 visible collars). Do not	CITOWETT® PLUS, AGRAL® 90 or
ACCENT 75		apply prior to the 4-leaf (2 visible	AG-SURF® at 2 L per 1000 L spray
	DO NOT apply using	collars) or after the 8-leaf (6	solution (0.2% v/v).
	aerial application	visible collars) stage of corn.	
+	equipment.	Observe a PHI of 30 days. Refer	
		to the	
non-ionic		ACCENT 75 DF label for further	
surfactant		limitations and precautions.	

## FIELD CORN (PRAIRIE PROVINCES) – WEEDS CONTROLLED

	WEEDS CONTROLLED
STARBUCK	As listed for STARBUCK used alone plus these additional weeds:
+	Seedlings in the 1- to 6-leaf stage (up to early tillering, 2 two-leaf tillers): Yellow foxtail*, barnyard grass, fall panicum, green foxtail, old witchgrass.
ACCENT 75 DF	Plants in the 3- to 6-leaf stage (10-20 cm in height—leaf extended): Quackgrass.
	* Suppression only
+	
non-ionic	
surfactant	

## **FALL RYE (not underseeded to legumes)**

	Spray volume and pressure	Timing	Application rate
STARBUCK	Apply in 100 L water per		1.2-1.4 L/ha.
used alone	hectare at a pressure of 275 kPa.	treated from the time growth begins to the early flag leaf	(The 9.7 L container treats 7.18.3 ha.)
	DO NOT apply using aerial application equipment.	stage in the spring.	If weeds are beyond the leaf stages indicated or under adverse growing conditions, use of the higher recommended rate will improve control
STARBUCK	Apply in 50-100 L water per hectare at a pressure of	Fall rye may be treated from the time growth begins	STARBUCK at 1.2 L/ha tank-mixed with 275 g active ingredient MCPA per hectare where indicated. Refer to the mixing tables at end of book for correct
+	275 kPa.	to the early flag leaf stage in the spring.	volume of MCPA. (The 9.7 L container of STARBUCK treats 8.3 ha.)
МСРА	DO NOT apply using aerial application equipment.		Note: MCPA ester is preferred although other formulations may be used. Add MCPA to the spray tank first, agitate, then add STARBUCK. Refer to the MCPA label for precautions and limitations.

## FALL RYE (not underseeded to legumes) – WEEDS CONTROLLED

	WEEDS CONTROLLED
	WEEDS CONTROLLED
STARBUCK Used alone	Seedlings up to 4-leaf stage: Green smartweed, pale smartweed, lady's-thumb, wild mustard*, kochia**, cow cockle*, Russian thistle**, stinkweed*, cocklebur, common ragweed, pigweed*, velvetleaf***, bluebur, American
	nightshade.  Seedlings up to 8-leaf stage:
	Wild buckwheat, Tartary buckwheat, common buckwheat, common groundsel, lamb's-quarters.
	* In normal conditions, will be controlled up to the 4-leaf stage. Plants beyond this stage are unlikely to be controlled. The higher rate generally gives better results.
	** Spray before plants are 5 cm high.  *** Spray before plants are 8 cm high.
STARBUCK	As listed for STARBUCK used alone plus these additional weeds:
	Seedlings up to 4-leaf stage:
+	Redroot pigweed, flixweed, shepherd's purse, scentless chamomile*, volunteer sunflower, volunteer rapeseed/canola**, night flowering catchfly, Canada thistle**, perennial sow-thistle**, ball mustard.
MCPA	
	Seedlings up to 8-leaf stage:
	Stinkweed, common ragweed, wild mustard, wormseed mustard.
	* Spring annuals only. Will not control overwintered weeds.  ** Top growth control only.

## FLAX (including low linolenic acid varieties)

	Spray volume and pressure	Timing	Application rate
STARBUCK used alone	Apply in 100 L water per hectare at a pressure of 275 kPa.  DO NOT apply using aerial application equipment.	Flax may be treated from the time it is 5 cm high up to the early flower bud stage but for best results apply STARBUCK when flax is 5-10 cm high. Note: 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. Do not spray flax by aircraft. Observe a minimum interval to harvest of 60 days after application of STARBUCK.  Flax is less tolerant of this product than are the cereal crops. Some leaf burn and retarded growth may delay maturity 2-3 days. Avoid using STARBUCK when flax is under stress or during hot (over 29°C) humid weather as	1.2 L/ha.
STARBUCK + MCPA or MCPA-K	Apply in 100 L water per hectare at a pressure of 275 kPa.  DO NOT apply using aerial application equipment.	severe crop injury may occur.  Flax may be treated from the time it is 5 cm high up to the early flower bud stage but for best results apply STARBUCK when flax is 5-10 cm high. Note: 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. Do not spray flax by aircraft. Observe a minimum interval to harvest of 60 days after application of STARBUCK.  Flax is less tolerant of this product than are the cereal crops. Some leaf burn and retarded growth may delay maturity 2-3 days. Avoid using STARBUCK when flax is under stress or during hot (over 29°C) humid weather as severe crop injury may occur.	Follow all precautions, limitations and timing recommendations on MCPA labels.  The amine, ester or K-salt formulations of MCPA can be used in tank-mixtures.

## FLAX – WEEDS CONTROLLED

	WEEDS CONTROLLED
STARBUCK	Seedlings up to 4-leaf stage:
Used alone	Green smartweed, pale smartweed, lady's-thumb, wild mustard*, kochia**, cow cockle*, Russian thistle**, stinkweed*, cocklebur, common ragweed, triazine-resistant pigweed*, velvetleaf***,
	bluebur, American nightshade.
	Seedlings up to 8-leaf stage: Wild buckwheat, Tartary buckwheat, common buckwheat, common groundsel, lamb's-quarters.
	* In normal conditions, 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.
	*** Spray before plants are 8 cm high.

STARBUCK	As listed for STARBUCK used alone plus these additional weeds:
+	Seedlings up to 4-leaf stage:
MCPA or	Redroot pigweed, flixweed, shepherd's purse, scentless chamomile*, volunteer sunflower, volunteer rapeseed/canola**, hemp-nettle***, night flowering catchfly, Canada thistle****, perennial sow-thistle****, ball mustard.
MCPA-K	
	Seedlings up to 8-leaf stage:
	Stinkweed, common ragweed, wild mustard, wormseed mustard.
	* Spring annuals only. Will not control overwintered weeds.
	** For high infestations tank-mix 550 g active ingredient MCPA per ha.
	*** Tank-mix 550 g active ingredient MCPA per ha. Plants beyond the 4-leaf stage are not likely to
	be controlled. Plants emerging after application, which is often the case on peat-type soils, will not
	be controlled.
	**** Top growth control only.

## **CANARY GRASS (for seed production)**

	Spray volume and pressure	Timing	Application rate
STARBUCK	Apply in 100 L water per hectare at a pressure of 275 kPa.	The crop may be treated from the 3- to 5-leaf stage.	1.2 L/ha. (The 9.7 L container treats 8.3 ha.)
used alone	DO NOT apply using aerial application equipment.	sage.	
STARBUCK	Apply in 50-100 L water per hectare at a pressure of	The crop may be treated from the 3- to 5-leaf	STARBUCK at 1.2 L/ha tank-mixed with 275 g active ingredient MCPA per hectare. Refer
+	275 kPa.	stage.	to the table at end of book for correct volume of MCPA.
MCPA	DO NOT apply using aerial application equipment.		(The 9.7 L container of STARBUCK treats 8.3 ha.)
			Note: MCPA ester is preferred although other formulations may be used. Add MCPA to the spray tank first, agitate, then add STARBUCK.
			Refer to the MCPA label for precautions and limitations.

## **CANARY GRASS (for seed production) – WEEDS CONTROLLED**

	WEEDS CONTROLLED
STARBUCK used alone	Seedlings up to 4-leaf stage: Green smartweed, pale smartweed, lady's-thumb, wild mustard*, kochia**, cow cockle*, Russian thistle**, stinkweed*, cocklebur, common ragweed, pigweed*, velvetleaf***, bluebur, American nightshade.
	Seedlings up to 8-leaf stage: Wild buckwheat, Tartary buckwheat, common buckwheat, common groundsel, lamb's-quarters.
	* In normal conditions, 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.  *** Spray before plants are 8 cm high.
STARBUCK	As listed for STARBUCK used alone plus these additional weeds:
+	Seedlings up to 4-leaf stage: Redroot pigweed, flixweed, shepherd's purse, scentless chamomile*, volunteer sunflower, volunteer
MCPA	rapeseed/canola**, night flowering catchfly, Canada thistle**, perennial sow-thistle**, ball mustard.
	Seedlings up to 8-leaf stage:
	Stinkweed, common ragweed, wild mustard, wormseed mustard.
	* Spring annuals only. Will not control overwintered weeds. ** Top growth control only.

## **TRITICALE**

	Spray volume and pressure	Timing	Application rate
STARBUCK	Apply in 100 L water/ha at	The crop may be	1.2-1.4 L/ha. (The 9.7 L container treats
	a pressure of 275 kPa.	treated from the 2-leaf	7.1-8.3 ha.) If weeds are beyond the leaf
used alone		until the early flag leaf	stage indicated or under adverse growing
	DO NOT apply using aerial	stage.	conditions, use of the higher recommended
	application equipment.		rate will improve control.

## TRITICALE – WEEDS CONTROLLED

	WEEDS CONTROLLED	
STARBUCK	Seedlings up to 4-leaf stage:	
used alone	Green smartweed, pale smartweed, lady's-thumb, wild mustard*, kochia**, cow cockle*, Russiar thistle**, stinkweed*, cocklebur, common ragweed, pigweed*, velvetleaf***, bluebur, American nightshade.	
	Seedlings up to 8-leaf stage: Wild buckwheat, Tartary buckwheat, common buckwheat, common groundsel, lamb's-quarters.	
	* In normal conditions, will be controlled up to the 4-leaf stage. Plants beyond this stage are unlikely to be controlled. The higher rate generally gives better results.  ** Spray before plants are 5 cm high.  *** Spray before plants are 8 cm high.	

## **GARLIC**

	Spray volume and	Timing	Application rate
	pressure		
STARBUCK	Apply in 200-300 L water per	Apply early post emergent to weeds by	1.2 L/ha.
used alone	hectare at a pressure of 275 kPa.	ground application only. One application per year.	
	DO NOT apply using aerial application equipment.	Observe a PHI of 58 days.	

## **GARLIC – WEEDS CONTROLLED**

	WEEDS CONTROLLED
STARBUCK	Seedlings up to 4-leaf stage:
used slave	Green smartweed, pale smartweed, lady's-thumb, wild mustard*, kochia**, cow cockle*, Russian thistle**, stinkweed*, cocklebur, common ragweed, pigweed*, velvetleaf***, bluebur, American
used alone	nightshade.
	Seedlings up to 8-leaf stage: Wild buckwheat, Tartary buckwheat, common buckwheat, common groundsel, lamb's-quarters.
	* In normal conditions, will be controlled up to the 4-leaf stage. Plants beyond this stage are unliked to be controlled. The higher rate generally gives better results.  ** Spray before plants are 5 cm high.
	*** Spray before plants are 8 cm high.

#### **CARROT**

NOTE TO USER: READ THE FOLLOWING BEFORE USING THIS PRODUCT FOR THE INDICATED SPECIAL USE APPLICATION:

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

## **CARROT**

	Spray Volume and Pressure	Timing	Application Rate
STARBUCK	Apply in 200 – 300 L water per hectare at a pressure of 275 kPa.	Apply only to carrots grown on muck soils containing greater than 10% organic matter.	1.2-1.4 L/ha. STARBUCK is a contact herbicide
used alone	pressure of 273 ki di	Apply 3-4 days prior to crop emergence by ground application only. One application per year. Observe a PHI of 45 days.	thus good coverage of weeds is essential.
		Do not irrigate carrots that have received a preemergence application of STARBUCK for 2 days following	

	application or 3 days of crop		
	emergence.		
	CARROT - WEEDS CONTROLLED		
	WEEDS CONTROLLED		
STARBUCK	Seedlings up to 4-leaf stage: Green smartweed, pale smartweed, lady's-thumb, wild mustard*, kochia**, cow cockle*, Russian		
used alone	thistle**, stinkweed*, cocklebur, common ragweed, pigweed*, velvetleaf***, bluebur, American nightshade.		
	Seedlings up to 8-leaf stage: Wild buckwheat, Tartary buckwheat, common buckwheat, common groundsel, lamb's-quarters.		
	* In normal conditions, will be controlled up to the 4-leaf stage. Plants beyond this stage are unlikely to be controlled. The higher rate generally gives better results.  ** Spray before plants are 5 cm high.  *** Spray before plants are 8 cm high.		

## **ONION (Dry Bulb Only)**

NOTE TO USER: READ THE FOLLOWING BEFORE USING THIS PRODUCT FOR THE INDICATED SPECIAL USE APPLICATION:

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

ONION (D	ry Bulb Only)		
	Spray Volume and Pressure	Timing	Application Rate
STARBUCK	Apply in 200 L water per hectare at a pressure of 170 kPa.	Make two applications per season, at an interval of 10 to 18 days. The first application should be made when	
used alone		onions are at the 2- to 3-leaf stage, and the second application made when onions are at the 4- to 5-leaf stage.	Application Precaution: STARBUCK may cause severe leaf burn in onions if weather conditions have not been conducive to the development of the outer waxy layer of the onion leaf.
		DO NOT harvest within 75 days of application.	
	ONION (D	Ory Bulb Only) - WEEDS CONTR	OLLED
		WEEDS CONTROLLED	
STARBUCK	Seedlings up to 4-leaf sta Redroot pigweed, commo		
used alone	,	-	

## SEEDLING ALFALFA PROVINCES OF ALBERTA, SASKATCHEWAN, MANITOBA ONLY

	Spray volume and pressure	Timing	Application rate
STARBUCK		treated at the 2 to 6 trifoliate	1.2 L/ha. (The 9.7 L container treats 8.3 ha.)
Used alone	Ground application only.  DO NOT apply using aerial application equipment.		Note: Use of this product may cause temporary leaf scorch or foliar burn in adverse growing conditions, especially if applied during or after periods of cool and wet, or hot and humid weather conditions. Do not apply if crop is under stress. Do not apply to alfalfa seedlings in the unifoliate or 1st trifoliate leaf stage. Avoid overlapping as severe crop injury may occur.

## SEEDLING ALFALFA — WEEDS CONTROLLED

	WEEDS CONTROLLED
STARBUCK	Seedlings up to 4-leaf stage:
	Green smartweed, pale smartweed, lady's-thumb, wild mustard*, kochia**, cow cockle*,
Used alone	Russian thistle**, stinkweed*, cocklebur, common ragweed, pigweed*, velvetleaf***,
	bluebur, American nightshade.
	Seedlings up to 8-leaf stage:
	Wild buckwheat, Tartary buckwheat, common buckwheat, common groundsel, lamb's-quarters.
	* In normal conditions, will be controlled up to the 4-leaf stage. Plants beyond this stage
	are unlikely to be controlled. The higher rate generally gives better results.
	** Spray before plants are 5 cm high.
	*** Spray before plants are 8 cm high.

# ESTABLISHED ALFALFA (for seed production only) PROVINCES OF ALBERTA, SASKATCHEWAN, MANITOBA ONLY

	Spray volume and pressure	Timing	Application rate
STARBUCK		Established alfalfa may be treated until alfalfa is 25 cm	1.2-1.4 L/ha. (The 9.7 L container treats 7.1-8.3 ha.) If weeds are beyond the leaf stage
used alone	Ground application only.  DO NOT apply using	tall. Maximum of 2 applications per year. Minimum re-treatment interval for the second	indicated or under adverse growing conditions, use of the higher recommended rate will improve control.
	aerial application equipment.	application is 21 days.	Note: Use of this product may cause temporary leaf scorch or foliar burn in adverse growing conditions, especially if applied during or after periods of cool and wet, or hot and humid weather conditions. Crop will recover and yield will not be affected.

## ESTABLISHED ALFALFA (for seed production only) — WEEDS CONTROLLED

	Weeds Controlled		
STARBUCK	Seedlings up to 4-leaf stage:		
Used alone	Green smartweed, pale smartweed, lady's-thumb, wild mustard*, kochia**, cow cockle*, Russian thistle**, stinkweed*, cocklebur, common ragweed, pigweed*, velvetleaf***, bluebur, American nightshade.		
	Seedlings up to 8-leaf stage: Wild buckwheat, Tartary buckwheat, common buckwheat, common groundsel, lamb's-quarters.		
	* In normal conditions, will be controlled up to the 4-leaf stage. Plants beyond this stage are unlikely to be controlled. The higher rate generally gives better results.  ** Spray before plants are 5 cm high.  *** Spray before plants are 8 cm high.		

## PRE-SEED/PRE-PLANT APPLICATION PRIOR TO SEEDING CANOLA

	Spray volume and pressure	Timing	Application rate
STARBUCK + Glyphosate (present as potassium or isopropylamine salt, dimethylamine salt, or diammonium salt)		to one day prior to seeding. DO NOT apply after seeding or crop emergence.	STARBUCK at 1.2-1.4 L/ha tank-mixed with glyphosate at 448 – 1782 g a.e./ha. Under adverse growing conditions or heavy weed populations, use of the higher recommended rate of STARBUCK will improve control.  STARBUCK should be added to the spray tank first, then add glyphosate.  Refer to the glyphosate label for the appropriate glyphosate use rate, precautions, mixing instructions and other use instructions.

## PRE-SEED/PRE-PLANT APPLICATION PRIOR TO SEEDING CANOLA — WEEDS CONTROLLED

	Weeds Controlled
STARBUCK	Annual and perennial weeds listed on the glyphosate label plus volunteer canola* seedlings at the
+	1-4 leaf stage.
Glyphosate	
(present as	*Including herbicide resistant biotypes
potassium or	
isopropylamine	
salt,	
dimethylamine	
salt, or	
diammonium	
salt)	

## **MINIMUM OR ZERO TILL**

	Spray volume and pressure	Timing	Application rate
STARBUCK	Apply in 100 L of clean water per hectare at a pressure of 275 kPa.	This recommendation applies only to minimum or zero till situations before emergence of	STARBUCK at 1.2 – 1.4 L/ha tank-mixed with glyphosate at 396 g a.e./ha. Under adverse growing
+	DO NOT apply using aerial		conditions or when high populations of volunteer canola are
Glyphosate	application equipment.	after seeding. Under no	present, use of the higher
(present as		circumstances should application	recommended rate of STARBUCK
potassium or		be made after crop emergence.	to improve control.
isopropylamine		Weeds in the seedling stage are	(This 9.7 L container of
salt,		most susceptible.	STARBUCK treats 8.1 ha.)
dimethylamine			
salt, or		This treatment should only be	STARBUCK should be added to the
diammonium		used for minimum or zero-tillage	spray tank first, then add
salt)		cropping systems in wheat,	glyphosate.

	barley and oats.	
		Refer to the glylphosate label for
		the appropriate glyphosate use
		rate, precautions, mixing
		instructions and other use
		instructions.

## MINIMUM OR ZERO TILL – WEEDS CONTROLLED

	WEEDS CONTROLLED
STARBUCK	Seedlings up to 4-leaf stage:
+	Green smartweed, pale smartweed, lady's-thumb, wild mustard*, kochia**, cow cockle*, Russian thistle**, stinkweed*, cocklebur, common ragweed, pigweed*, velvetleaf***, bluebur, American nightshade, Volunteer canola****.
Glyphosate	
(present as	Seedlings up to 8-leaf stage:
potassium or	Wild buckwheat, Tartary buckwheat, common buckwheat, common groundsel,
isopropylamine	lamb's-quarters.
salt, dimethylamine	Consequence do um to 15 anno
salt, or	Grassy weeds up to 15 cm:
diammonium	Wild oats, volunteer cereals, green foxtail.
salt)	* In normal conditions, 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.
	*** Spray before plants are 8 cm high.
	****Including herbicide tolerant types.

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

	Spray volume and pressure	Timing	Application rate
STARBUCK Used alone	Apply in 150 L water per hectare at a pressure of 275 kPa.		1.2-1.4 L/ha. (The 9.7 L container treats 7.18.3 ha.)
osed alone	DO NOT apply using aerial application equipment.	stage.	If weeds are beyond the leaf stage indicated or under adverse growing conditions, use of the higher recommended rate will improve control.
			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, reed canary grass.
STARBUCK	Apply in 150 L water per hectare at a pressure of		STARBUCK at 1.2 L/ha tank-mixed with 275 g active ingredient MCPA per hectare. Refer to the table at
+	275 kPa.	the 2- to 4-leaf stage.	end of book for correct volume of MCPA. (The 9.7 L container of STARBUCK treats 8.3 ha.)
МСРА	DO NOT apply using aerial application equipment.		Note: MCPA ester is preferred although other formulations may be used. Add MCPA to the spray tank first, agitate, then add STARBUCK. Refer to the MCPA label for precautions and limitations.

## **SEEDLING GRASSES – WEEDS CONTROLLED**

	WEEDS CONTROLLED
STARBUCK	Seedlings up to 4-leaf stage:
Used alone	Green smartweed, pale smartweed, lady's-thumb, wild mustard*, kochia**, cow cockle*, Russian thistle**, stinkweed*, cocklebur, common ragweed, pigweed*, velvetleaf***,
	bluebur, American nightshade.
	Seedlings up to 8-leaf stage:
	Wild buckwheat, Tartary buckwheat, common buckwheat, common groundsel, lamb's-quarters.
	* In normal conditions, will be controlled up to the 4-leaf stage. Plants beyond this stage are unlikely to be controlled. The higher rate generally gives better results.  ** Spray before plants are 5 cm high.
	*** Spray before plants are 8 cm high.
STARBUCK	As listed for STARBUCK used alone plus these additional weeds:
+	Seedlings up to 4-leaf stage:
MCDA	Redroot pigweed, flixweed, shepherd's purse, scentless chamomile*, volunteer
MCPA	rapeseed/canola**, volunteer sunflower, night flowering catchfly, Canada thistle**, perennial sow-thistle**, ball mustard.
	Seedlings up to 8-leaf stage: Stinkweed, common ragweed, wild mustard, wormseed mustard. * Spring annuals only. Will not control overwintered weeds.
	** Top growth control only.

## FORAGE SORGHUM AND FORAGE MILLET

	Spray volume and pressure	Timing	Application rate
STARBUCK		Apply when the crop is at or beyond the 4-leaf stage and less than 20 cm in height	1.2 L/ha.
Used alone	1.	by ground application only. One application per year. Observe a PHI of 30	
	DO NOT apply using aerial application equipment.	1	

## FORAGE SORGHUM AND FORAGE MILLET – WEEDS CONTROLLED

	WEEDS CONTROLLED					
STARBUCK	Seedlings up to 4-leaf stage:					

Used alone	Green smartweed, pale smartweed, lady's-thumb, wild mustard*, kochia**, cow cockle*, Russian thistle**, stinkweed*, cocklebur, common ragweed, pigweed*, velvetleaf***, bluebur, American nightshade.
	Seedlings up to 8-leaf stage: Wild buckwheat, Tartary buckwheat, common buckwheat, common groundsel, lamb's-quarters.
	* In normal conditions, will be controlled up to the 4-leaf stage. Plants beyond this stage are unlikely to be controlled. The higher rate generally gives better results.  ** Spray before plants are 5 cm high.  *** Spray before plants are 8 cm high.

## DIRECTIONS FOR USE: GRAIN SORGHUM and GRAIN PEARL MILLET STARBUCK Herbicide

## NOTE TO USER: READ THE FOLLOWING BEFORE USING THIS PRODUCT FOR THE INDICATED SPECIAL USE APPLICATION:

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

## **GRAIN SORGHUM AND GRAIN PEARL MILLET**

	Spray Volume and Pressure	Timing	Application Rate
STARBUCK	Apply in 200-300 L water/ha at a pressure	Apply when the crop is at or beyond the 4 leaf stage and less than 20	STARBUCK at 1.2 L/ha.
used alone	of 275 kPa.	cm in height by ground application only. One application per year.	
		Observe a PHI of 100 days.	

## **GRAIN SORGHUM and GRAIN PEARL MILLET - WEEDS CONTROLLED**

	WEEDS CONTROLLED
STARBUCK	Seedlings up to 4-leaf stage:
Used alone	Green smartweed, Pale smartweed, Lady's-thumb, Wild mustard*, Kochia**, Cow cockle*, Russian thistle**, Stinkweed*, Cocklebur, Common ragweed, Pigweed*, Velvetleaf***, Bluebur, American nightshade.
	Seedlings up to 8-leaf stage: Wild buckwheat, Tartary buckwheat, Common buckwheat, Common groundsel, Lamb's-quarters.
	* In normal conditions will be controlled up to the 4-leaf stage. Plants beyond this stage are unlikely to be controlled. The higher rate generally gives better results.  ** Spray before plants are 5 cm high.

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

## **MIXING TABLE:**

For calculating the amount of product to add to the spray tank when applying 100L spray solution per hectare.

		STARBUCK (240 MCPA Amine 500 or g/L) MCPA Ester 500				MCPA Sodium Salt 300			
Rate acti	•	280 g 340 g 275 g 550 g 275 g			550 g	275 g	550 g		
Rate prod hecta	-	1.2 L	1.4 L	550 mL	1.1 L	690 mL	1.38 L	920 mL	1.83 L
Size of spray tank				Litres of ch	nemical to add	l to spray tar	nk (approx.)		
Gallons	Litres								
500	2273	27.2	31.8	12.5	25.0	15.7	31.4	20.9	41.6
400	1818	21.8	25.5	10.0	20.0	12.5	25.0	16.7	33.3
350	1591	19.1	22.3	8.75	17.5	11.0	22.0	14.6	29.2
300	1363	16.3	19.0	7.5	15.0	9.4	18.8	12.5	25.0
250	1136	13.6	15.9	6.25	12.5	7.8	15.7	10.5	20.8
200	909	10.9	12.7	5.0	10.0	6.25	12.5	8.4	16.6
100	455	5.4	6.3	2.5	5.0	3.2	6.3	4.2	8.4
50	227	2.7	3.2	1.25	2.5	1.6	3.2	2.1	4.2
22	100	1.2	1.4	550 mL	1.1	690 mL	1.38	920 mL	1.8
10	45	540 mL	630 mL	250 mL	500 mL	310 mL	620 mL	420 mL	820 mL

		STARBUCK (240 g/L)		2,4-D AMINE 500	2,4-D 600 LV ESTER	2,4-D 700 LV ESTER
Rate active per hectare Rate product per hectare		280 g 1.2 L	340 g 1.4 L	275 g 550 mL	275 g 458 mL	275 g 393 mL
Size of spray tank		Litres of chemical to add to the spray tank (approx.)				
Gallons	Litres					
500	2273	27.2	31.8	12.5	10.4	8.9
400	1818	21.8	25.5	10.0	8.3	7.1
350	1591	19.1	22.3	8.75	7.3	6.25
300	1363	16.3	19.0	7.5	6.25	5.4
250	1136	13.6	15.9	6.25	5.2	4.5
200	909	10.9	12.7	5.0	4.2	3.6
100	455	5.4	6.3	2.5	2.1	1.8
50	227	2.7	3.2	1.25	1.0	890 mL
22	100	1.2	1.4	550 mL	458 mL	390 mL
10	45	540 mL	630 mL	250 mL	210 mL	180 mL