GROUP

3

HERBICIDE

PENSHUI HERBICIDE

Microencapsulated Pendimethalin in an Aqueous Carrier

MICROCAPSULE SUSPENSION

COMMERCIAL (AGRICULTURAL)

(NOT FOR SALE FOR USE IN PRAIRIE PROVINCES, EXCEPT FOR DRY BULB ONIONS ON MINERAL SOILS, GREEN ONIONS AND TRANSPLANTED LEEKS ON MINERAL SOILS, CARROTS AND COMMERCIAL OUTDOOR ORNAMENTAL PRODUCTION)

ACTIVE INGREDIENT: Pendimethalin......455 g/L

Contains 1,2-benzisothiazolin-3-one at 0.0174% as preservative, or Contains 5-Chloro-2-methyl-4-isothiazolin-3-one at 0.00102% and 2 Methyl 4 isothiazolin-3-one at 0.00033% as preservatives

REGISTRATION NO. 33837 PEST CONTROL PRODUCTS ACT

READ THE LABEL AND ATTACHED BROCHURE BEFORE USING KEEP OUT OF REACH OF CHILDREN

IN CASE OF EMERGENCY ENDANGERING LIFE OR PROPERTY INVOLVING THIS PRODUCT, CALL DAY OR NIGHT 1-844-810-5720

NET CONTENTS: 5 L – BULK

Sharda Cropchem Limited

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Sharda Cropchem Limited

63 Kingsview Blvd Etobicoke, Ontario, CA

M9R 1V1

1-844-810-5720 1-416-840-5639

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/drinking water supplies or aquatic habitats by cleaning of equipment or disposal of wastes.

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 and Biological Engineers (ASABE) medium classification.

DO NOT apply using aerial application equipment.

Buffer zones

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

		Buffer zones (metres) required for the protection of:						
Method of application	Crop	Freshwater habitats of depths:		Estuarine/marine habitats of depths:		Terrestrial habitat		
		Less than 1 m	1 – 3 m	Greater than 3 m	Less than 1 m	1 – 3 m	Greater than 3 m	
Field sprayer*	Dry bulb onions and carrots (muck soil)	15	5	2	40	15	5	5
	Field corn and carrots (mineral soil), pearl millet	5	2	1	20	10	3	2
	Dry bulb onions (mineral soil - Western Canada)	5	2	1	20	5	3	2
	Dry bulb onions (mineral soil - Eastern Canada)	5	3	1	25	10	4	4
	Soybeans	5	2	1	15	5	2	2
	White and kidney beans	5	2	1	15	5	2	2
	Adzuki, snap and Lima beans	5	2	1	15	5	2	2
	Green onions (muck soil)	15	5	2	40	15	5	5
	Transplanted leeks and green onions (mineral soil)	5	2	1	15	5	2	2

^{*} For field sprayer application, buffer zones can be reduced with the use of drift-reducing spray shields. When using a spray boom fitted with a full shield (shroud, curtain) that extends to the crop canopy or

ground, the labeled 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 or ground, the labeled buffer zone can be reduced by 30%.

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

FIELD CORN

GENERAL INFORMATION

PENSHUI herbicide applied on corn will control certain annual grass and annual broadleaved weeds (see appropriate section under Application Directions for weeds controlled).

PENSHUI herbicide can be applied on corn alone as a pre-emergence treatment or in tank mix with atrazine, BANVEL® II or MARKSMAN® at pre-emergence or post-emergence timings. **PENSHUI** herbicide may also be applied as a post-emergence treatment in tank mix with Elim EP 25% DF, Elim EP 25% DF plus BANVEL II, Accent 75 DF plus BANVEL II, glyphosate or MARKSMAN + glyphosate. Apply post-emergence tank mixes with glyphosate to glyphosate tolerant corn only (i.e., varieties with the Roundup Ready® gene).

For burndown and residual control of selected annual weeds, **PENSHUI** herbicide may be tank mixed with Roundup®¹ or Touchdown® iQ™ Liquid Herbicide and applied after seeding but before crop emergence.

PENSHUI herbicide tank mixture treatments are most effective in controlling weeds when adequate rainfall is received within 7 days after application. If cultivation is necessary because of soil crusting, soil compaction, or weed germination before rain, use shallow tillage (such as rotary hoe), and make certain corn seeds are below the tilled area. After early post-emergence treatments, wait 7 to 10 days before cultivating. Annual grasses must be in the 2-leaf stage or smaller at the time of early post-emergence application. A shallow cultivation or rotary hoeing will generally result in improved weed control.

Read and follow the label of tank mix partner products regarding specific precautions, restrictions and application information.

SOIL CLASSIFICATIONS

Soil textures are classified as coarse, medium and fine. These terms are further defined as follows:

Coarse - sands, loamy sands, sandy loams

Medium - sandy clay loams, sandy clays, loams, silts, silt loams

Fine - silty clay loams, sandy clay loams, clay loams, silty clays, clays

Roundup Original Liquid Herbicide, Roundup Transorb Liquid Herbicide, Roundup WeatherMax with Transorb 2 Technology Liquid Herbicide or Roundup Ultra2 Liquid Herbicide

PLANT BACK RESTRICTIONS AND ROTATIONAL CROPS

For **PENSHUI** herbicide tank mixtures, follow the cropping restrictions for the tank mix partner.

In the case of a crop failure, land treated with **PENSHUI** herbicide can be reseeded only with the original crop (corn), provided seeding depth is below the retilled layer. Crop injury will result if seed is planted in the retilled layer of soil which is treated with **PENSHUI** herbicide. **DO NOT** plant corn where land preparation prior to reseeding has incorporated the **PENSHUI** herbicide into the seed germination zone.

PENSHUI herbicide treated land may be planted to corn or soybeans in the year following application. Fall seeded crops (winter wheat, winter barley, winter rapeseed) should not be planted on land that was treated with **PENSHUI** herbicide the previous spring.

APPLICATIONS WITH LIQUID FERTILIZERS

Pre-emergence applications of **PENSHUI** herbicide alone and of **PENSHUI** herbicide plus atrazine, BANVEL II, or MARKSMAN can be applied in liquid fertilizers (rate of 200 litres of liquid fertilizer per hectare).

DO NOT apply PENSHUI herbicide post-emergence in liquid fertilizers. Apply postemergence applications in water only.

Liquid Fertilizer Compatibility Determinations

If the liquid fertilizer/herbicide(s) mixture separates in the spray tank, clogged equipment and uneven application can result, which can cause poor weed control and crop injury. Always predetermine the compatibility of **PENSHUI** herbicide alone or with other herbicides in the specific liquid fertilizer to be used according to the following directions:

- 1. Add 0.5 L of fertilizer to a one-litre jar.
- 2. i) When using **PENSHUI** herbicide alone, add to the jar the correct amount of **PENSHUI** herbicide alone as specified in the following table.
 - ii) When using **PENSHUI** herbicide tank mixtures, first add the specified quantity of product to be tank mixed with **PENSHUI** herbicide (see table), and then add the correct amount of **PENSHUI** herbicide.
- 3. Close the jar and shake thoroughly for 10 seconds. Let stand for 30 minutes and then observe the results. Look for signs of separation, an oily layer or globules, sludge, flakes or other precipitates.
- 4. Determine compatibility:
 - i) If the herbicide(s) and liquid fertilizer mixture does not separate, use this mixture in your spray tank.
 - ii) If the mixture separates, but mixes readily with shaking, the mixture can be used providing good agitation is maintained in the spray tank.

iii) If separation of the mixture occurs and agitation does not correct this problem, DO NOT use **PENSHUI** herbicide with that specific liquid fertilizer.

Amount of Specified Herbicide to be Added to 0.5 L of Liquid Fertilizer Solution*				
Litres of Liquid Fertilizer to be Applied per Hectare	PENSHUI Herbicide Alone	Aatrex Liquid 480	BANVEL II Herbicide	MARKSMAN Herbicide
200	9 mL	8 mL	3 mL	11 mL

^{*} Based on maximum use rate used in the label for each product. **

RESTRICTIONS AND LIMITATIONS

DO NOT apply **PENSHUI** herbicide more than once during a season for each field.

DO NOT apply **PENSHUI** herbicide more than one year in sequence.

DO NOT INCORPORATE OR SERIOUS CROP INJURY WILL RESULT.

DO NOT apply **PENSHUI** herbicide post-emergence in liquid fertilizers.

The application of **PENSHUI** herbicide is restricted to corn grown only in medium and fine texture soils with more than 3% organic matter.

DO NOT use on corn grown in peat or muck soils.

Unless otherwise specified, DO NOT add oils or surfactant to post-emergence applications.

The seed bed should be firm and free of clods and trash. Plant corn AT LEAST 4 cm deep to ensure good seed coverage.

PENSHUI herbicide controls certain annual grass and broadleaf weeds as they germinate, but will not control established weeds. Destroy existing weeds before applying **PENSHUI** herbicide (except as recommended in specific post-emergence combination treatments or when tankmixed with glyphosate and applied as a pre-emergence treatment). Unusually cold, excessively wet, or hot and dry conditions that delay germination or extend germination over a long period of time can reduce weed control.

Applied according to label directions and under normal growing conditions, **PENSHUI** herbicide will not cause crop injury. Over-application can result in crop stand loss, crop injury, or soil residues. Uneven application can decrease weed control or cause crop injury.

Seedling diseases, cold weather, excessive moisture, deep planting, high soil pH, high soil salt concentration, or drought can weaken seedlings and plants and increase the possibility of crop damage from **PENSHUI** herbicide. Under these conditions, crop yields can be reduced.

DO NOT graze the treated immature corn or cut for silage prior to 100 days after **PENSHUI** herbicide application.

DO NOT apply to sweet corn or corn grown for seed.

APPLICATION DIRECTIONS

Uniformly apply with properly calibrated ground equipment using a minimum of 200 L water per hectare.

Use a properly calibrated low-pressure (138 kPa to 276 kPa) sprayer equipped with 80° or 110° flat fan nozzles to achieve uniform spray distribution and minimize drift. Keep the by-pass line on or near the bottom of the tank to minimize foaming. Nozzle screens must be no finer than 50 mesh.

A. PENSHUI Herbicide Alone

Application Timing

Pre-emergence - after planting, before weeds or crop emerges

Application Rate: 3.7 L/ha **PENSHUI** Herbicide

PENSHUI herbicide alone applied as directed will control the following weeds:

GrassesBarnyard grass

Broadleaf Weeds
Lamb's-quarters¹

Crabgrass (large and smooth) Redroot pigweed¹ (suppression only)

Fall panicum Green foxtail

B. PENSHUI Herbicide plus Glyphosate (Roundup¹ or Touchdown iQ Liquid Herbicide)

For burndown and residual control of selected annual weeds, **PENSHUI** herbicide may be tank mixed at a rate of 3.7 L/ha with Roundup¹ or Touchdown iQ Liquid Herbicide and applied after seeding but before crop emergence.

Consult the glyphosate label for use rates and weeds controlled by glyphosate, as well as for further recommendations, precautions and restrictions.

¹Roundup Transorb Liquid Herbicide, Roundup WeatherMax with Transorb 2 Technology Liquid Herbicide or Roundup Ultra2 Liquid Herbicide

C. PENSHUI Herbicide + Aatrex Liquid 480

¹ includes triazine-resistant biotypes

Application Timing

Pre-emergence - after planting, before weeds or crop emerges

Post-emergence - before the 2-leaf stage of annual grasses and up to and including the 4-leaf stage of corn

Application Rate

Timing	PENSHUI Herbicide	Aatrex Liquid 480 *	
Preemergence	3.7 L/ha	3.1 L/ha	
Postemergence	3.7 L/ha	3.1 L/ha	

This tank mixture applied as directed will control the following weeds:

GrassesBroadleaf WeedsBarnyard grassCommon ragweedCrabgrass (large and smooth)1Lamb's-quarters2Fall panicumRedroot pigweed2Green foxtailSmartweedYellow foxtailVelvetleaf3

D. PENSHUI Herbicide + BANVEL II Herbicide

Application Timing

Pre-emergence - after planting, before weeds or crop emerge

Post-emergence - before the 2-leaf stage of annual grasses and up to the 4-leaf stage of corn

Application Rate

Timing	PENSHUI Herbicide	BANVEL II Herbicide
Pre-emergence	3.7 L/ha	1.25 L/ha
Post-emergence	3.7 L/ha	0.6 to 1.25 L/ha

This tank mixture applied as directed will control the following weeds:

Grasses

Barnyard grass¹

Crabgrass (large and smooth)²

Broadleaf Weeds

Common ragweed

Lamb's-quarters³

¹ pre-emergence application only

² includes triazine-resistant biotypes

³ early post-emergence application only up to the 3-leaf stage of corn

Fall panicum² Redroot pigweed³

Green foxtail Velvetleaf

Precaution

DO NOT apply if temperature exceeds 25°C at application time.

E. PENSHUI Herbicide + MARKSMAN Herbicide

Application Timing

Pre-emergence - after planting, before weeds or crop emerge Post-emergence - before the 2-leaf stage of annual grasses

Application Rate

Timing	PENSHUI Herbicide	MARKSMAN Herbicide*
Pre-emergence	3.7 L/ha	3.7 to 4.5 L/ha
Post-emergence	3.7 L/ha	3.7 to 4.5 L/ha

^{*} Consult the MARKSMAN label for rates, recommendations, precautions and restrictions.

This tank mixture applied as directed will control the following weeds:

Grasses

Barnyard grass¹

Crabgrass (large and smooth)¹

Fall panicum²

Green foxtail

Old witchgrass

Broadleaf weeds

Common ragweed

Lamb's-quarters^{1, 3}

Redroot pigweed³

Velvetleaf ⁴

Precautions

- 1. DO NOT apply if temperature exceeds 25°C at application time.
- 2. DO NOT apply where drift may contact sensitive crops.

F. PENSHUI Herbicide + ELIM EP 25% DF Herbicide

¹ post-emergence application provides partial control and reduces competition from this weed

² pre-emergence application only

^{3 i}ncludes triazine-resistant biotypes

¹ post-emergence application provides partial control and reduces competition from this weed 2 pre-emergence application only

³ includes triazine-resistant biotypes

⁴ pre-emergence application provides partial control and reduces competition from this weed

Application Timing

Post-emergence - at the 1-4 leaf stage of annual grasses and from the spike to the 3-leaf stage of corn

Application Rate

Add a non-ionic surfactant at 0.2% v/v (2 L/1000 L) to the tank mix.

Timing	PENSHUI Herbicide	Elim EP 25% DF
Post-emergence	2.2 L/ha	50 g/ha

This tank mixture applied as directed will control the following weeds:

Grasses

Barnyard grass

Crabgrass (large and smooth)

Fall anicum

Broadleaf Weeds

Lamb's-quarters^{1, 2}

Redroot pigweed¹

Fall anicum Green foxtail Old witchgrass Yellow foxtail

G. PENSHUI Herbicide + ELIM EP 25% DF + BANVEL II

Application Timing

Post-emergence - at the 1-4 leaf stage of annual grasses, and from the spike to the 3-leaf stage of corn

Application Rate

Add a non-ionic surfactant at 0.2% v/v (2 L/1000 L) to the tank mix.

Timing	PENSHUI	Elim EP 25% DF	BANVEL II
	Herbicide	Herbicide	Herbicide
Post-emergence	2.2 L/ha	50 g/ha	625 mL/ha

This tank mixture applied as directed will control the following weeds:

GrassesBroadleaf weedsBarnyard grassCanada thistle (top growth only)Crabgrass (large and smooth)Corn spurryFall panicumCow cockleGreen foxtailEastern black nightshadeOld witchgrassField bindweedYellow foxtailGreen smartweedLady's-thumb

¹ includes triazine-resistant biotypes

² provides partial control and reduces competition from this weed

Lamb's-quarters1 Ragweed (common) Redroot pigweed¹

Perennial sow-thistle (top growth

only)

Tartary buckwheat

Velvetleaf

Wild buckwheat Wild mustard

Wormseed mustard

H. PENSHUI Herbicide + ACCENT 75 DF + BANVEL II

Application Timing

Post-emergence - at the 1-4 leaf stage of annual grasses, and from the spike to the 3-leaf stage of corn

Application Rate

Add Agral 90 at 0.2% v/v (2 L/1000 L) to the tank mix.

Timing	PENSHUI	Accent 75 DF	BANVEL II
	Herbicide	Herbicide	Herbicide
Post-emergence	2.2 L/ha	16.7 g/ha	625 mL/ha

This tank mixture applied as directed will control the following weeds:

Grasses	Broadleaf weeds
Barnyard grass	Canada thistle (top growth only)
Fall panicum	Corn spurry
Green foxtail	Cow cockle
Large crabgrass ¹	Field bindweed
Old witchgrass	Green smartweed
Yellow foxtail ¹	Lady's-thumb
	Lamb's-quarters ²
	Ragweed (common)
	Redroot pigweed ²
	Perennial sow-thistle (top growth only)
	Tartary buckwheat
	Velvetleaf
	Wild buckwheat
	Wild mustard
	Wormseed mustard

¹ suppression only

¹ includes triazine-resistant biotypes

² includes triazine-resistant biotypes

I. PENSHUI Herbicide + Glyphosate

PENSHUI herbicide may be applied in tank-mix combination with glyphosate as a postemergence application to glyphosate tolerant corn for burndown control of emerged weeds on the glyphosate label and residual control of the following grass and broadleaf weeds.

Refer to the glyphosate label for weeds controlled in addition to those listed below:

Grasses

Barnyard grass

Crabgrass (large and smooth)

Green foxtail

Broadleaf Weeds

Lamb's-quarters¹

Redroot pigweed¹

Application Timing

Post-emergence - at the 1 to 4-leaf stage of glyphosate tolerant corn (i.e., varieties with the Roundup Ready® gene).

Warning

Corn varieties which are not designated as glyphosate tolerant will be damaged or destroyed by this treatment. Consult the glyphosate label for further recommendations, precautions and restrictions.

Application Rate

Timing	PENSHUI Herbicide	glyphosate*
Post-emergence	2.2 L/ha	2.5 L/ha of glyphosate (360 g ae/L equivalent)

^{*} **PENSHUI** herbicide is compatible with all liquid glyphosate formulations registered for use as a post-emergence treatment to glyphosate tolerant corn in which glyphosate is present as an isopropylamine salt, di-ammonium salt or potassium salt.

J. PENSHUI Herbicide + MARKSMAN Herbicide + Glyphosate

The addition of **MARKSMAN** herbicide to the above tank mix of **PENSHUI** herbicide + glyphosate (see section I) will provide improved residual control of broadleaf weeds and annual grasses in glyphosate tolerant corn.

Refer to the glyphosate label for weeds controlled in addition to those listed below:

GrassesBarnyard grass

Broadleaf Weeds
Lamb's-quarters¹

¹ includes triazine-resistant biotypes

Crabgrass (large and smooth) Green foxtail

Ragweed (common) Redroot pigweed¹ Velvetleaf

Application Timing

Post-emergence - at the 1 to 4-leaf stage of glyphosate tolerant corn (i.e., varieties with the Roundup Ready® gene).

Warning

Corn varieties which are not designated as glyphosate tolerant will be damaged or destroyed by this treatment. Consult the glyphosate label for further recommendations, precautions and restrictions.

Application Rate

Timing	PENSHUI Herbicide	MARKSMAN Herbicide	glyphosate*
Post-emergence	2.2 L/ha	2.5 L/ha	2.5 L/ha of glyphosate (360 g ae/L equivalent)

^{*} **PENSHUI** herbicide and **MARKSMAN** herbicide are compatible with all liquid glyphosate formulations registered for use as a post-emergence treatment to glyphosate tolerant corn in which glyphosate is present as an isopropylamine salt, di-ammonium salt or potassium salt.

SOYBEANS

GENERAL INFORMATION

PENSHUI herbicide applied preplant to soybeans will provide residual control of select broadleaf weeds and annual grasses (see appropriate section under APPLICATION DIRECTIONS for weeds controlled).

PENSHUI herbicide can be applied to soybeans as an early preplant surface application in tank mix with glyphosate or PURSUIT herbicide and glyphosate. **PENSHUI** herbicide may also be applied as a preplant incorporated application to soybeans up to 45 days before planting in tank mix with PURSUIT herbicide.

PENSHUI herbicide controls certain annual grass and broadleaf weeds as they germinate, but will not control established weeds. Unusually cold, excessively wet, or hot and dry conditions that delay germination or extend germination over a long period of time can reduce weed control.

Read and follow the label of tank mix partner products regarding specific precautions, restrictions and application information.

PLANT BACK AND FOLLOW CROP RESTRICTIONS FOR SOYBEANS

¹ includes triazine-resistant biotypes

For **PENSHUI** herbicide tank mixtures, follow the cropping restrictions for the tank mix partner.

The following rotational crops may be planted the season following **PENSHUI** herbicide use in soybeans:

Field corn Soybeans White and kidney beans

Fall seeded crops (winter wheat, winter barley, winter rapeseed) should not be planted on land that was treated with **PENSHUI** herbicide the previous spring.

There is insufficient information to clearly define what additional rotational crops can be planted the season following a **PENSHUI** herbicide application. Conduct a field bioassay (a test strip grown to maturity) the year before growing any other crop.

In the case of a crop failure, land treated with **PENSHUI** herbicide can be reseeded with soybeans or corn, provided seeding depth is below the retilled layer. Rework the soil no deeper than the treated zone. Do not apply a second treatment of **PENSHUI** herbicide. In case of a crop failure, land treated with **PENSHUI** herbicide plus PURSUIT herbicide can be reseeded only with soybeans, provided seeding depth is below the retilled layer. Rework the soil no deeper than the treated zone. Do not apply a second treatment of **PENSHUI** herbicide tank mix.

RESTRICTIONS AND LIMITATIONS

DO NOT apply **PENSHUI** herbicide more than once during a season for each field.

DO NOT apply **PENSHUI** herbicide more than one year in sequence.

DO NOT apply **PENSHUI** herbicide after planting soybeans as crop injury may occur.

DO NOT apply **PENSHUI** herbicide on coarse textured soils or soils with less than 3% organic matter.

DO NOT apply **PENSHUI** herbicide to soybeans within 100 days of harvest.

DO NOT graze soybeans treated with a tank mix of **PENSHUI** herbicide plus PURSUIT herbicide or cut for hay; sufficient data are not available to support such use.

DO NOT apply PURSUIT herbicide as a preplant incorporated application more than one year in sequence. Allow at least 24 months between pre-plant incorporated applications.

Refer to the tank mix partner label(s) for further precautions, restrictions and limitations. Always use in accordance with the more restrictive label restrictions and precautions.

APPLICATION DIRECTIONS

A. PENSHUI Herbicide + Glyphosate

For burndown and early season residual control of key grass and broadleaf weeds in soybeans, **PENSHUI** herbicide may be tank mixed at a rate of 2.2 L/ha with glyphosate and applied as an early preplant surface application. Consult the glyphosate label for use rates and weeds controlled by glyphosate, as well as for further recommendations, precautions and restrictions. **PENSHUI** herbicide is compatible with all liquid glyphosate formulations registered for use as a preplant treatment prior to soybeans in which glyphosate is present as an isopropylamine salt, potassium salt or diammonium salt.

This treatment will only provide early-season weed control and should be used in a program where a later application of a herbicide is anticipated.

Uniformly apply with properly calibrated ground equipment using a minimum of 200 L water per hectare. To reduce the potential for crop injury, this tank mix is to be applied prior to planting soybeans in no-till or reduced tillage situations. Soybeans should be planted at least 5 cm deep.

Adequate soil moisture is required for optimum activity. The amount of rainfall or irrigation required following application depends on existing soil moisture, soil texture and organic matter content. Sufficient water to moisten the soil to a depth of 5 cm is normally adequate.

PENSHUI herbicide will provide early season residual control of the following grass and broadleaf weeds. Consult the glyphosate label for weeds controlled by glyphosate, as well as for further recommendations, precautions and restrictions. Glyphosate susceptible weeds must be emerged at time of application.

Grasses

Barnyard grass Crabgrass (large and smooth) Green foxtail Yellow foxtail

Broadleaf Weeds

Lamb's-quarters¹ (suppression only) Ragweed (common) Redroot pigweed¹

B. PENSHUI Herbicide + PURSUIT herbicide

For control of selected annual weeds in soybeans, **PENSHUI** herbicide may be tank mixed at a rate of 2.2 L/ha with PURSUIT herbicide at a rate of 312 mL/ha and applied as a preplant incorporated application to soybeans up to 45 days before planting.

A tank mix of **PENSHUI** herbicide plus PURSUIT herbicide controls weeds by uptake by weed roots and translocation to the growing points where it stops weed growth. Adequate soil moisture is required for optimum activity. The amount of rainfall or irrigation required following application depends on existing soil moisture, soil texture and organic matter content. Sufficient water to moisten the soil to a depth of 5 cm is normally adequate. If adequate moisture is not received, then cultivation is recommended to control escaped weeds. When adequate moisture is received after dry conditions, a tank mix of **PENSHUI**

¹ includes triazine-resistant biotypes

herbicide plus Pursuit herbicide will provide residual control of susceptible germinating weeds; activity on established weeds will depend on the weed species and the location of its root system in the soil. Weeds which continue to grow beyond the 2 true leaf stage may be escapes and should be controlled by tillage or application of a post-emergence herbicide.

Uniformly apply with properly calibrated ground equipment using 100 to 400 litres of water per hectare. This tank mix must be soil applied and incorporated into the soil prior to planting. Soybeans should be planted at least 5 cm deep.

This tank mix may be applied following land preparation and should be thoroughly incorporated to a depth of 5 cm. Incorporate prior to soybean planting. Mechanical incorporation can be achieved by the following:

- a) Disk harrow set to cut 7 10 cm deep and operated at 6 to 10 kph with the second pass at an angle to the first.
- b) PTO-driven equipment (tillers, cultivators, hoes) set to cut deep and operated one time at 6 kph or less.
- c) Field cultivator with 3 to 4 rows of sweeps (Do not use chisel points), spaced at intervals of 10 cm or less and staggered so that no soil is left unturned, set to cut 7 cm deep and operated two times at more than 7 kph with the second pass made at an angle to the first.

If soybeans are planted on beds, apply and incorporate after bed formation using PTO-driven equipment or a rolling cultivator.

This tank mixture applied as directed will control the following grass and broadleaf weeds.

Grasses	Broadleaf Weeds
Barnyard grass	Ragweed, common ¹
Green foxtail	Lamb's-quarters, common ²
Yellow foxtail	Redroot pigweed ²
	Velvetleaf

¹ provides partial control and reduces competition from this weed

C. PENSHUI Herbicide + PURSUIT herbicide + Glyphosate

For burndown and residual control of key grass and broadleaf weeds in no-till and reduced-till soybeans, **PENSHUI** herbicide may be tank mixed at a rate of 2.2 L/ha with PURSUIT herbicide at a rate of 312 mL/ha and with glyphosate applied as an early preplant surface application. Refer to the glyphosate product label for specific use rate and weeds controlled

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² includes triazine-resistant biotypes

A tank mix of **PENSHUI** herbicide plus PURSUIT herbicide controls weeds by uptake by weed roots and translocation to the growing points where it stops weed growth. Adequate soil moisture is required for optimum activity. The amount of rainfall or irrigation required following application depends on existing soil moisture, soil texture and organic matter content. Sufficient water to moisten the soil to a depth of 5 cm is normally adequate. If adequate moisture is not received, then cultivation is recommended to control escaped weeds. When adequate moisture is received after dry conditions, a tank mix of **PENSHUI** herbicide plus Pursuit herbicide will provide residual control of susceptible germinating weeds; activity on established weeds will depend on the weed species and the location of its root system in the soil. Weeds which continue to grow beyond the 2 true leaf stage may be escapes and should be controlled by tillage or application of a post-emergence herbicide.

Uniformly apply with properly calibrated ground equipment using 100 to 200 litres of water per hectare. To reduce the potential for crop injury, this tank mix is to be applied prior to planting soybeans in no-till or reduced tillage situations. Soybeans should be planted at least 5 cm deep.

Consult the glyphosate label for use rates and weeds controlled by glyphosate, as well as for further recommendations, precautions and restrictions. **PENSHUI** herbicide is compatible with all liquid glyphosate formulations registered for use as a preplant treatment prior to soybeans in which glyphosate is present as an isopropylamine salt, potassium salt or diammonium salt

This tank mixture applied as directed will control the following grass and broadleaf weed species. Consult the glyphosate label for weeds controlled by glyphosate in addition to those listed below. Glyphosate susceptible weeds must be emerged at time of application.

Grasses

Barnyard grass

Green foxtail

Yellow foxtail

Ragweed, common¹

Lamb's-quarters, common²

Redroot pigweed ²

Velvetleaf

PEARL MILLET (FORAGE, GRAIN AND SWEET STEM)

¹ provides partial control and reduces competition from this weed

² includes triazine-resistant biotypes

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

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For control of selected annual weeds in pearl millet (forage, grain and sweet stem), **PENSHUI** herbicide may be applied as a pre- emergent application (after planting, but before weeds and crop emerge) at a rate of 3.7 L/ha. Plant pearl millet at least 4 cm deep to ensure good seed coverage. Uniformly apply with properly calibrated ground equipment using a minimum of 200 L water per hectare.

PENSHUI herbicide controls certain annual grass and broadleaf weeds as they germinate, but will not control established weeds.

Adequate soil moisture is required for optimum activity. The amount of rainfall or irrigation required following application depends on existing soil moisture, soil texture and organic matter content. If adequate moisture is not received, then cultivation is recommended to control escaped weeds.

Unusually cold, excessively wet or hot and dry conditions that delay germination or extend germination over a long period of time may reduce weed control.

PENSHUI herbicide applied as directed will control the following grass and broadleaf weed species:

Grasses
Barnyard grass
Crabgrass (large and smooth)
Fall panicum
Green foxtail

Broadleaf Weeds
Lamb's-quarters¹
Redroot pigweed¹ (suppression only)

¹ includes triazine-resistant biotypes

PLANT BACK AND FOLLOW CROP RESTRICTIONS FOR PEARL MILLET

In the case of a crop failure, land treated with **PENSHUI** herbicide can be reseeded with field corn, provided seeding depth is below the retilled layer. Crop injury will result if seed is planted in the retilled layer of soil which is treated with **PENSHUI** herbicide. **DO NOT** plant corn where land preparation prior to reseeding has incorporated the **PENSHUI** herbicide into the seed germination zone.

The following rotational crops may be planted the season following **PENSHUI** herbicide use in pearl millet:

Field corn Soybeans Pearl millet

Fall seeded crops (winter wheat, winter barley, winter rapeseed) should not be planted on land that was treated with **PENSHUI** herbicide the previous spring.

RESTRICTIONS AND LIMITATIONS

For use in Eastern Canada only.

DO NOT apply **PENSHUI** herbicide more than once during a season for each field.

DO NOT apply **PENSHUI** herbicide more than one year in sequence.

DO NOT apply **PENSHUI** herbicide as a preplant or preplant incorporated application to pearl millet as crop injury may occur.

DO NOT apply **PENSHUI** herbicide on pearl millet grown on coarse textured soils or soils with less than 3% organic matter.

DO NOT graze or harvest millet for forage within 55 days application.

DO NOT harvest millet for hay within 75 days of application.

DO NOT harvest millet grain and straw within 120 days of application.

Crop Injury Disclaimer: Penshui herbicide use may result in crop injury, loss or damage to certain crops under a number of conditions, including but not limited to agronomic, cultural, mechanical, and environmental. Numerous risks of loss or damage to certain crops may be associated with the use of Penshui herbicide even when directions for use are followed completely. The user or grower should take all such risks into consideration before deciding to apply the product. Sharda Cropchem Ltd. recommends testing on a small portion of the target crop to determine if damage is likely to occur. Each grower who is considering the product for such use should test Penshui herbicide to determine its suitability. A grower should use Penshui herbicide only to the extent, that in his sole opinion, the benefit of Penshui herbicide use outweighs the potential injury to the grower's crop.

ADZUKI, SNAP AND LIMA BEANS

For control of selected annual weeds in adzuki, snap and lima beans, **PENSHUI** herbicide may be applied as a preplant incorporated application at a rate of 2.37 L/ha. **PENSHUI** herbicide controls certain annual grass and broadleaf weeds as they germinate, but will not control established weeds.

Uniformly apply with properly calibrated ground equipment using a minimum of 200 L water per hectare. **PENSHUI** herbicide must be soil applied and incorporated into the soil prior to planting.

DO NOT apply after planting adzuki, snap and lima beans as crop injury may occur.

Adequate soil moisture is required for optimum activity. The amount of rainfall or irrigation required following application depends on existing soil moisture, soil texture and organic matter content. If adequate moisture is not received, then cultivation is recommended to control escaped weeds.

Unusually cold, excessively wet or hot and dry conditions that delay germination or extend germination over a long period of time may reduce weed control.

PENSHUI herbicide applied as directed will control the following grass and broadleaf weed species:

Grasses
Green foxtail

Broadleaf Weeds
Lamb's-quarters¹ (suppression only)
Redroot pigweed¹

PLANT BACK AND FOLLOW CROP RESTRICTIONS FOR ADZUKI, SNAP AND LIMA BEANS

The following rotational crops may be planted the season following **PENSHUI** herbicide use in adzuki beans:

Field corn Soybeans

Fall seeded crops (winter wheat, winter barley, winter rapeseed) should not be planted on land that was treated with **PENSHUI** herbicide the previous spring.

In the case of a crop failure, land treated with **PENSHUI** herbicide can be reseeded with soybeans or corn, provided seeding depth is below the retilled layer. Rework the soil no deeper than the treated zone. Do not apply a second treatment of **PENSHUI** herbicide.

RESTRICTIONS AND LIMITATIONS

For use on adzuki beans grown in Eastern Canada only.

DO NOT apply **PENSHUI** herbicide more than once during a season for each field.

DO NOT apply **PENSHUI** herbicide more than one year in sequence.

¹ includes triazine-resistant biotypes

DO NOT apply **PENSHUI** herbicide after planting adzuki, snap or lima beans as crop injury may occur.

DO NOT apply **PENSHUI** herbicide to adzuki beans within 90 days of harvest.

DO NOT apply **PENSHUI** herbicide to snap and lima beans within 50 and 80 days of harvest, respectively.

Unusually cold, excessively wet, or hot and dry conditions that delay germination or extend germination over a long period of time can reduce weed control.

WHITE AND KIDNEY BEANS

For control of selected annual weeds in white and kidney beans, **PENSHUI** herbicide may be applied as a preplant incorporated application at a rate of 2.37 L/ha. **PENSHUI** herbicide controls certain annual grass and broadleaf weeds as they germinate, but will not control established weeds.

Uniformly apply with properly calibrated ground equipment using a minimum of 200 L water per hectare. **PENSHUI** herbicide must be soil applied and incorporated into the soil prior to planting.

DO NOT apply after planting white and kidney as crop injury may occur.

Adequate soil moisture is required for optimum activity. The amount of rainfall or irrigation required following application depends on existing soil moisture, soil texture and organic matter content. If adequate moisture is not received, then cultivation is recommended to control escaped weeds.

Unusually cold, excessively wet or hot and dry conditions that delay germination or extend germination over a long period of time may reduce weed control.

PENSHUI herbicide applied as directed will control the following grass and broadleaf weed species:

GrassesBroadleaf WeedsBarnyard grassLamb's-quarters¹ (suppression only)Green foxtailRedroot pigweed¹

PLANT BACK AND FOLLOW CROP RESTRICTIONS FOR WHITE AND KIDNEY BEANS

The following rotational crops may be planted the season following **PENSHUI** herbicide use in white and kidney beans:

Field corn Soybeans

¹ includes triazine-resistant biotypes

White and kidney beans

Fall seeded crops (winter wheat, winter barley, winter rapeseed) should not be planted on land that was treated with **PENSHUI** herbicide the previous spring.

There is insufficient information to clearly define what additional rotational crops can be planted the season following a **PENSHUI** herbicide application. Conduct a field bioassay (a test strip grown to maturity) the year before growing any other crop.

In the case of a crop failure, land treated with **PENSHUI** herbicide can be reseeded with soybeans, white or kidney beans. Rework the soil no deeper than the treated zone. Do not apply a second treatment of **PENSHUI** herbicide.

RESTRICTIONS AND LIMITATIONS

DO NOT apply **PENSHUI** herbicide more than once during a season for each field.

DO NOT apply **PENSHUI** herbicide more than one year in sequence.

DO NOT apply **PENSHUI** herbicide after planting white or kidney beans as crop injury may occur.

DO NOT apply **PENSHUI** herbicide to white or kidney beans within 90 days of harvest.

Unusually cold, excessively wet, or hot and dry conditions that delay germination or extend germination over a long period of time can reduce weed control.

GREEN (BUNCHING) ONIONS AND TRANSPLANTED LEEKS ON MINERAL SOILS

Penshui herbicide will control key annual grasses and broadleaf weeds in green (bunching) onions and transplanted leeks grown on mineral soils. Uniformly apply the recommended rate of **Penshui** herbicide as a single application at the 2 to 3 true leaf stage of green onions or after transplanting leeks and before weed emergence. **PENSHUI** herbicide will not control emerged weeds. Destroy existing weeds before applying **PENSHUI** herbicide. **PENSHUI** herbicide treatments are most effective in controlling weeds when adequate rainfall or overhead irrigation is received within seven (7) days after application.

Uniformly apply with properly calibrated ground equipment using a minimum of 200 L water per hectare. Do not apply **PENSHUI** herbicide in liquid fertilizers.

Do not apply within 30 days of harvest.

Application Timing

Transplanted Leeks
After transplanting of leeks and before weed emergence

Green (Bunching) Onions

At the 2 to 3 true leaf stage after the crop has fully emerged and before weed emergence. Application made prior to full emergence may result in significant crop injury.

Application Rate

Soil Type	PENSHUI Herbicide
Mineral	2.37 L/ha

PENSHUI herbicide applied as directed will control the following weeds:

Grasses

Broadleaf Weeds Green foxtail

Lamb's-quarters¹ (suppression only) Redroot pigweed¹

GREEN (BUNCHING) ONIONS ON MUCK SOILS (direct seed only)

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

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Penshui herbicide will provide short term residual control of key annual grasses and broadleaf weeds in green (bunching) onions grown on muck soils (direct seed only). Uniformly apply the recommended rate of **Penshui** herbicide as a single application between the loop stage and flag stage of green onions and before weed emergence. Application made prior to full emergence may result in significant crop injury. **PENSHUI** herbicide will not control emerged weeds. Destroy existing weeds before applying PENSHUI herbicide. PENSHUI herbicide treatments are most effective in controlling weeds when adequate rainfall or overhead irrigation is received within seven (7) days after application.

Planting depth must be a minimum of 2 cm when planting green (bunching) onions.

Uniformly apply with properly calibrated ground equipment using a minimum of 200 L water per hectare.

Penshui herbicide applied as directed will provide short term residual control the following grass and broadleaf weeds:

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¹ includes triazine-resistant biotypes

Barnyard grass
Crabgrass (large and smooth)
Green foxtail
Yellow foxtail
Common chickweed
Lamb's-quarters¹
Pigweed¹

Application Timing and Rate

Timing	PENSHUI Herbicide
Between the loop stage and flag stage of green onions	6.6 L/ha

Do not enter or allow worker entry into treated areas during the restricted entry interval (REI) of 4 days for scouting, 7 days for hand-set irrigation, and 15 days for hand weeding.

Do not apply **PENSHUI** herbicide in liquid fertilizers.

DO NOT feed forage or graze livestock in treated fields.

Do not apply within 30 days of harvest.

DO NOT use **PENSHUI** herbicide on onions grown from sets on muck soils.

DO NOT apply **PENSHUI** herbicide more than once during a season for each field.

DO NOT apply **PENSHUI** herbicide more than one year in sequence.

CULTURAL PRACTICES FOLLOWING APPLICATION

Should weeds develop, a shallow cultivation or rotary hoeing will generally result in better weed control. When cultivating for any reason, it should be shallow.

In the case of a crop failure, land treated with **PENSHUI** herbicide can be reseeded with dry bulb onions.

FOLLOW CROP RESTRICTIONS

Pendimethalin, the active ingredient in **PENSHUI** herbicide, has the potential to carry over and harm rotational crops following onions in muck soils.

- 1. ONLY dry bulb onions may be planted in the year of **PENSHUI** herbicide application.
- 2. Carrots, direct seeded lettuce and dry bulb onions may be planted into soil which was treated with **PENSHUI** herbicide the previous year.

¹ includes triazine-resistant biotypes

There is insufficient information to clearly define what additional rotational crops can be planted or what recropping intervals are appropriate. Recrop injury may be reduced by ploughing treated land to a depth of 30 cm prior to planting other crops.

Do not plant any succeeding crops other than carrots, direct seeded lettuce or dry bulb onions within 12 months of the last **PENSHUI** herbicide application.

Crop Injury Disclaimer: Penshui herbicide use may result in crop injury, loss or damage to certain crops under a number of conditions, including but not limited to agronomic, cultural, mechanical, and environmental. Numerous risks of loss or damage to certain crops may be associated with the use of Penshui herbicide even when directions for use are followed completely. The user or grower should take all such risks into consideration before deciding to apply the product. Sharda Cropchem Ltd. recommends testing on a small portion of the target crop to determine if damage is likely to occur. Each grower who is considering the product for such use should test Penshui herbicide to determine its suitability. A grower should use Penshui herbicide only to the extent, that in his sole opinion, the benefit of Penshui herbicide use outweighs the potential injury to the grower's crop

DRY BULB ONIONS ON MUCK SOIL (direct seed only)

PENSHUI herbicide can be applied at the loop and 2-true-leaf stage of crop development. Uniformly apply the recommended rate of **PENSHUI** herbicide in 250 or more litres of water per hectare by ground equipment. **PENSHUI** herbicide treatments will NOT control emerged weeds. Destroy existing weeds before applying **PENSHUI** herbicide. **PENSHUI** herbicide treatments are most effective in controlling weeds when adequate rainfall or overhead irrigation is received within seven (7) days after application.

PENSHUI herbicide applied as directed will control the following grass and broadleaf weeds:

Barnyard grass
Crabgrass (large and smooth)
Green foxtail
Yellow foxtail
Common chickweed
Lamb's-quarters¹
Pigweed¹

Application Rate

Timing	PENSHUI Herbicide	
Loop stage of onion growth	6.6 L/ha	
2-true-leaf stage of onion growth	6.6 L/ha	

¹ includes triazine-resistant biotypes

Application at both growth stages is required for season-long control, however, note the precautions in the Follow Crop Rotation section. Sequential applications of other herbicides may be required for broad spectrum weed control. Consult the labels of the other herbicides for weeds controlled and proper time for application.

Precautions

- 1. On muck soils, DO NOT use **PENSHUI** herbicide on onions grown from sets.
- 2. Livestock cannot be fed pendimethalin treated onions.

CULTURAL PRACTICES FOLLOWING APPLICATION

Should weeds develop, a shallow cultivation or rotary hoeing will generally result in better weed control. When cultivating for any reason, it should be shallow.

In the case of a crop failure, land treated with **PENSHUI** herbicide can be reseeded only with the original crop (onions).

FOLLOW CROP RESTRICTIONS FOR ONIONS

Pendimethalin, the active ingredient in **PENSHUI** herbicide, has the potential to carry over and harm rotational crops following onions in muck soils.

- 1. ONLY onions may be planted in the year of **PENSHUI** herbicide application.
- 2. Carrots and direct seeded lettuce may be planted into soil which was treated with **PENSHUI** herbicide the previous year.

There is insufficient information to clearly define what additional rotational crops can be planted or what recropping intervals are appropriate. Recrop injury may be reduced by 1) using only one application per season (i.e., loop stage) and 2) ploughing treated land to a depth of 30 cm prior to planting other crops.

Do not plant any succeeding crops other than carrots or direct seeded lettuce within 12 months of the last **PENSHUI** herbicide application.

DRY BULB ONIONS ON MINERAL SOILS IN EASTERN CANADA

Weeds	PENSHUI Rate	Directions
Labeled annual grasses and broadleaf weeds	2.2 - 3.3 L/ha	Maximum of two applications per year. Apply as a foliar spray. Ground application only. Apply in 250 L water/ha. Apply at 2-6 true-leaf stage.

DRY BULB ONIONS ON MINERAL SOILS IN WESTERN CANADA

Weeds	PENSHUI Rate	Directions
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NEWLY PLANTED AND ESTABLISHED FRUIT TREES IN BRITISH COLUMBIA ONLY (apple, peach, nectarine, cherry and apricot)

Weeds	PENSHUI Rate	Directions
Annual grasses and labeled broadleaf weeds	3.7 L/ha	One application per year. Ground application. Boom sprayer. Apply pre-emergent to weed growth. For use in British Columbia only.

COMMERCIAL ORNAMENTAL PRODUCTION AND CONIFERS FOR FIELD PRODUCTION

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

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Penshui Herbicide will control annual grasses and certain broadleaf weeds in and around field, liner and container outdoor ornamentals and conifers for field production, including Christmas trees.

Uniformly apply the recommended rate of **Penshui** Herbicide with properly calibrated ground equipment before weed emergence. **PENSHUI** herbicide will not control emerged weeds. Destroy existing weeds before applying **PENSHUI** herbicide. **PENSHUI** herbicide treatments are most effective in controlling weeds when adequate rainfall or overhead irrigation is received. If **PENSHUI** is not activated by rainfall or irrigation within 7 days, erratic weed control may result.

Outdoor ornamentals and conifers may vary in their tolerance to herbicides, including **Penshui** herbicide. The tolerance of the listed ornamental species below has been found to be acceptable when **Penshui** herbicide is applied as directed. Since not every variety or strain of outdoor ornamental species has been tested for tolerance to **Penshui** herbicide, first use of **Penshui** herbicide should be limited to a small area of each species to confirm tolerance prior to adoption as a general field practice. Additionally, consult your plant or seed supplier for information on the tolerance of specific species of outdoor ornamentals to **Penshui** herbicide.

Plant only those plant species for which tolerance has been confirmed into soil treated the previous season with Penshui herbicide or injury may occur.

APPLICATION DIRECTIONS

Uniformly apply with properly calibrated ground equipment using a minimum of 100 L water per hectare.

Application Rate: 3.7 L/ha **PENSHUI** Herbicide

Established Container or Field Grown Ornamentals and Conifers for field production, including Christmas trees

Apply as a directed spray. DO NOT make over-the-top applications. DO NOT apply during bud swell, bud break or at time of first flush of new growth. If newly budded or graphed rootstock, make an application using a shielded sprayer. Care must be taken to ensure there are no cracks in the soil where **PENSHUI** Herbicide could come in contact with the roots.

Newly Transplanted Container or Field Grown Ornamentals and Conifers for field production, including Christmas trees

Apply as a directed spray. DO NOT make over-the-top applications. DO NOT apply until transplants have been watered and soil has been thoroughly packed and settled around transplants. Care must be taken to ensure there are no cracks in the soil where PENSHUI Herbicide could come in contact with the roots. For container grown ornamentals, delay first application of the product to bareroot liners for two weeks after transplanting. **DO NOT** apply during bud swell, bud break or at time of first flush of new growth. Direct sprays away from graphed or budded tissue on transplants at all times.

Weeds Controlled

PENSHUI herbicide applied pre-emergence as directed will control the following weeds:

Grasses **Broadleaf Weeds** Barnyard grass Lamb's-quarters¹ Redroot pigweed¹ (suppression only)

Crabgrass (large and smooth)

Fall panicum Green foxtail

1 includes triazine-resistant biotypes

TOLERANCE OF THE ORNAMENTAL SPECIES LISTED BELOW HAS BEEN FOUND TO BE ACCEPTABLE WHEN PENSHUI HERBICIDE IS APPLIED AS DIRECTED.

Scientific name Common name Fraser fir Abies fraseri. Common yarrow Achillea millefolium Columbine Aquilegia sp. "McKana"

River birch Betula nigra

Chrysanthemum maximum Shasta daisy

Lanceleaf tickseed Coreopsis lanceolata
Leyland cypress Cupressocyparis leylandii

Foxglove Digitalis purpurea
Purple coneflower Echinacea purpurea
Forsythia Forsythia intermedia
Green ash Fraxinus pennsylvanica

Blanket flower Gaillardia aristata

Gaillardia pulchella

Avens Geum quellyon

Geum chiloense

Baby's breath
Daylily
Andorra juniper
Crepe myrtle
Statice
Gypsophila paniculata
Hemerocallis spp.
Juniperus horizontalis
Lagerstroemia indica
Limonium latifolium

Peony Paeonia sp. Loblolly pine Pinus taeda Water oaks Quercus nigra Blood stonecrop Sedium spurium Stokes aster Stokesia laevis Taxus cuspidate Spreading yew Globe arborvitate Thuja occidentalis Canadian hemlock Tsuga Canadensis

DO NOT APPLY PENSHUI HERBICIDE ONTO THE ORNAMENTAL SPECIES LISTED BELOW AS UNACCEPTABLE INJURY OR PLANT DEATH MAY OCCUR

Common nameScientific nameJapanese holly fernCyrtomium falcatum

Golden balsam *Impatiens* sp. Petunia *Petunia hybrida*

False dragonhead Physostegia virginiana

White pine Pinus strobus
Black-eyed Susan Rudbeckia hirta
Lamb's ear Stachys byzantina

RESTRICTIONS AND LIMITATIONS

DO NOT apply **PENSHUI** herbicide to newly-transplanted ornamentals and conifers until plants have been watered and soil has been thoroughly packed and settled around roots.

DO NOT make over-the-top applications.

DO NOT treat plants grown for food or feed. **DO NOT** use treated plants for food or feed.

Unusually cold, excessively wet, or hot and dry conditions that delay weed germination or extend weed germination over a long period of time can reduce weed control.

Applied according to label directions and under normal growing conditions, **PENSHUI** herbicide will not cause plant injury. Over-application can result in plant injury or soil residues. Uneven application can decrease weed control or cause plant injury.

Seedling diseases, cold weather, excessive moisture, high soil pH, high soil salt concentration, or drought can weaken seedlings and plants, and increase the possibility of plant damage from **PENSHUI** herbicide.

Unintentional consequences such as crop injury may result because of certain environmental or growing conditions, manner of use or application. Therefore, before treating a large number of plants, spray a few plants and observe for plant damage prior to full-scale operation

Avoid unintentional contact of spray solution with stone, wood, or other porous surfaces as staining may occur. Rinse surfaces immediately using a heavy spray of water to avoid staining.

CARROTS

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

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Crop	Weeds	Application rate (L/ha)
Carrots in mineral soil Barnyard grass		3.7 L/ha
	Crabgrass (large and smooth)	
	Fall panicum	
	Green foxtail	
	Lamb's-quarters ¹	
	Redroot pigweed¹ (suppression only)	
	¹ includes triazine-resistant biotypes	
Carrots in muck soil	Barnyard grass	6.6 L/ha
	Crabgrass (large and smooth)	
	Green foxtail	
	Yellow foxtail	
	Common chickweed	
	Lamb's-quarters ¹	
	Pigweed ¹	
	¹ includes triazine-resistant biotypes	

Penshui Herbicide will control labeled weeds listed above in carrots grown on muck and mineral soils. Uniformly apply the recommended rate of Penshui Herbicide as a single broadcast spray to the soil surface as a post-plant treatment within 2 days after planting and prior to the emergence of the crop and weeds. One application per year. Penshui Herbicide will not control emerged weeds. Destroy existing weeds before applying Penshui Herbicide. Penshui Herbicide treatments are most effective in controlling weeds when adequate rainfall or overhead irrigation is received within seven (7) days after application.

Uniformly apply with properly calibrated ground equipment using a minimum of 200 L water per hectare. Do not apply Penshui Herbicide in liquid fertilizers.

Do not apply as a broadcast spray over top of carrots or crop injury may result.

Do not apply to carrots grown for seed production.

Do not feed forage or graze livestock in treated fields.

Do not apply within 90 days of harvest.

DO NOT apply PENSHUI herbicide more than once during a season for each field.

DO NOT apply PENSHUI herbicide more than once in two consecutive years.

ROTATIONAL CROPS AND PLANT BACK RESTRICTIONS FOR CARROTS GROWN ON MINERAL SOIL

The following rotational crops may be planted the year following PENSHUI herbicide use in carrots grown on mineral soil:

Field corn Sovbeans

Dry bulb onions

Fall seeded crops (winter wheat, winter barley, winter rapeseed) should not be planted on land that was treated with PENSHUI herbicide the previous spring.

Conduct a field bioassay (a test strip to mature) the year before growing any other crop.

In the case of a crop failure, land treated with PENSHUI herbicide can be reseeded with corn provided seeding depth is below the retilled layer. Crop injury will result if seed is planted in the retilled layer of soil which is treated with PENSHUI herbicide. DO NOT plant corn where land preparation prior to reseeding has incorporated the PENSHUI herbicide into the seed germination zone.

CULTURAL PRACTICES FOLLOWING APPLICATION TO CARROTS GROWN ON MUCK SOIL

Should weeds develop, a shallow cultivation or rotary hoeing will generally result in better weed control. When cultivating for any reason, it should be shallow.

In the case of a crop failure, land treated with PENSHUI herbicide can be reseeded with dry bulb onions.

FOLLOW CROP RESTRICTIONS FOR CARROTS GROWN ON MUCK SOIL

Pendimethalin, the active ingredient in PENSHUI herbicide, has the potential to carry over and harm rotational crops following carrots in muck soils.

- 1. ONLY dry bulb onions may be planted in the year of PENSHUI herbicide application.
- 2. Carrots, direct seeded lettuce and dry bulb onions may be planted into soil which was treated with PENSHUI herbicide the previous year.

There is insufficient information to clearly define what additional rotational crops can be planted or what recropping intervals are appropriate. Recrop injury may be reduced by ploughing treated land to a depth of 30 cm prior to planting other crops.

Do not plant any succeeding crops other than carrots or direct seeded lettuce within 12 months of the last PENSHUI herbicide application

Conduct a field bioassay (a test strip to mature) the year before growing any other crop.

Crop Injury Disclaimer: Penshui herbicide use may result in crop injury, loss or damage to certain crops under a number of conditions, including but not limited to agronomic, cultural, mechanical, and environmental. Numerous risks of loss or damage to certain crops may be associated with the use of Penshui herbicide even when directions for use are followed completely. The user or grower should take all such risks into consideration before deciding to apply the product. Sharda Cropchem Ltd. recommends testing on a small portion of the target crop to determine if damage is likely to occur. Each grower who is considering the product for such use should test Penshui herbicide to determine its suitability. A grower should use Penshui herbicide only to the extent, that in his sole opinion, the benefit of Penshui herbicide use outweighs the potential injury to the grower's crop.

MIXING INSTRUCTIONS

Fill tank one-half to three quarters full with clean water or liquid fertilizer and agitate. Prior
to mixing PENSHUI or PENSHUI tank mixtures in liquid fertilizer, refer to appropriate
label sections for recommended uses in liquid fertilizer, application instructions and
compatibility determinations. DO NOT apply PENSHUI herbicide post-emergence in
liquid fertilizers. Apply post-emergence applications in water only.

2. **PENSHUI** Herbicide Alone

When using **PENSHUI** herbicide alone, add **PENSHUI** to the partially filled tank while agitating and then fill the remainder of the tank with water or liquid fertilizer.

If applying with liquid fertilizer, pre-slurry PENSHUI 1-to-1 with water prior to mixing with liquid fertilizers.

3. **PENSHUI** Herbicide Tank Mixes

When applied as a tank-mix combination, read and observe all label directions, including rates, personal protective equipment, restrictions and precautions for each product used in the tank-mix. Always use in accordance with the most restrictive label restrictions and precautions.

Add the tank mixture ingredients in the order listed below prior to adding **PENSHUI** herbicide:

a) Wettable Powder, Dry Flowable or Water Dispersible Granule Formulations: When using water as your carrier, add the dry material to the partially filled tank while agitating. If applying with liquid fertilizer, first make a slurry of the dry material in water (1:2 ratio) before adding to liquid fertilizer in spray tank.

b) PENSHUI herbicide:

Add PENSHUI herbicide to the partially filled tank while agitating. If applying with liquid fertilizer, pre-slurry PENSHUI 1-to-1 with water prior to mixing with liquid fertilizers. Ensure that PENSHUI is completely mixed prior to adding additional tank mix products to tank.

- LIQUID formulations:
 Add the liquid to the partially filled tank while agitating.
- d) Emulsifiable Concentrate formulations:
 Add the EC to the partially filled tank while agitating.
- e) Solution formulations, including glyphosate products:
 Add the solution to the partially filled tank while agitating. Add the glyphosate tank mix partner after any solution formulation products but prior to any surfactants.

After complete mixing, add PENSHUI herbicide to the partially filled tank while agitating.

When tank mixing ELIM EP 25% DF, ELIM EP 25% DF plus BANVEL II, or ACCENT 75 DF plus BANVEL II, ensure that the tank mix is well mixed and in suspension, then add a recommended non-ionic surfactant such as CITOWETT® PLUS, AGRAL® or AGSURF® to the tank mix.

Fill the remainder of the tank with water or liquid fertilizer while agitating.

4. MAINTAIN CONTINUOUS AGITATION WHILE ADDING HERBICIDES AND UNTIL SPRAYING IS COMPLETE. If the spray mixture is allowed to settle for any period of

time, thorough agitation is essential to re-suspend the mixture before spraying is resumed.

RESISTANCE-MANAGEMENT RECOMMENDATIONS

For resistance management, **PENSHUI** is a Group 3 herbicide. Any weed population may contain or develop plants naturally resistant to **PENSHUI** and other Group 3 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 PENSHUI or other Group 3 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 SHARDA at 1-844-810-5720.

PRECAUTIONS

- 1. KEEP OUT OF REACH OF CHILDREN.
- DO NOT APPLY USING AERIAL APPLICATION EQUIPMENT.
- 3. Harmful if swallowed or absorbed through the skin. Causes moderate eye irritation. Avoid contact with skin, eyes or clothing.
- 4. Wear long sleeved shirt, long pants, chemical resistant gloves and shoes plus socks when mixing, loading and during clean up and repair. Wear long sleeved shirt, long pants, and shoes plus socks during application.

- 5. Users should wash hands before eating, drinking, chewing gum and when using tobacco or the toilet.
- 6. Remove personal protective equipment immediately after handling this product. Wash the outside of the gloves before removing. As soon as possible, wash hands (or any other skin that came into contact with the product) with soap and water and change into clean clothing.
 - Remove clothing/personal protective equipment immediately if pesticide comes in contact with the skin through soaked clothing or spills. Then wash skin thoroughly and put on clean clothing. Wash contaminated clothing before reuse.
 - Discard clothing and other absorbent materials that have been drenched or heavily contaminated with this product's concentrate. DO NOT reuse them.
- 7. Except for application to soybeans, fruit trees, and direct-seeded green onions in muck soils, do not enter or allow worker entry into treated areas during the restricted entry interval (REI) of 24 hours. For direct seeded green onions in muck soils, do not enter or allow worker entry into treated areas during the restricted entry interval (REI) of 4 days for scouting, 7 days for hand-set irrigation, and 15 days for hand weeding.
- 8. 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 inversion, application equipment and sprayer settings.
- 9. It is recommended that this product not be applied in a way that will contact workers or other persons, either directly or through drift. Only handlers wearing personal protective equipment may be in the area during application.

FIRST AID

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

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

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

If 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.

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

TOXICOLOGICAL INFORMATION

The patient should be treated symptomatically.

ENVIRONMENTAL HAZARDS

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

STORAGE

Do not contaminate water, food or feed by storage.

PENSHUI herbicide freezes around -9°C and is stable under conditions of freezing and thawing. If this product has been stored where freezing temperatures have occurred, agitate or mix contents of container well before use.

DISPOSAL / DECONTAMINATION

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

Returnable Containers

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

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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.

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®Unless otherwise specified, products listed are registered trademarks of their respective companies.

PENSHUI HERBICIDE

Microencapsulated Pendimethalin in an Aqueous Carrier

MICROCAPSULE SUSPENSION

COMMERCIAL (AGRICULTURAL)

(NOT FOR SALE FOR USE IN PRAIRIE PROVINCES, EXCEPT FOR DRY BULB ONIONS ON MINERAL SOILS, GREEN ONIONS AND TRANSPLANTED LEEKS ON MINERAL SOILS, CARROTS AND COMMERCIAL OUTDOOR ORNAMENTAL PRODUCTION)

Contains 1,2-benzisothiazolin-3-one at 0.0174% as preservative or Contains 5-Chloro-2-methyl-4-isothiazolin-3-one at 0.00102% and 2 Methyl 4 isothiazolin-3one at 0.00033% as preservatives

PEST CONTROL PRODUCTS ACT REGISTRATION NO. 33837

READ THE LABEL AND ATTACHED BROCHURE BEFORE USING

KEEP OUT OF REACH OF CHILDREN

IN CASE OF EMERGENCY ENDANGERING LIFE OR PROPERTY INVOLVING THIS PRODUCT, CALL DAY OR NIGHT 1-844-810-5720

NET CONTENTS: 5 L – BULK

Sharda Cropchem Limited

2nd Floor, Prime Business Park Dashrathlal Joshi Road Vile Parle (West) Mumbai - 400056, India

Canadian Agent: **Sharda Cropchem Limited** 63 Kingsview Blvd Etobicoke, Ontario, CA M9R 1V1

1-844-810-5720 1-416-840-5639

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