

## OFFICE OF CHEMICAL SAFETY AND POLLUTION PREVENTION

WASHINGTON, D.C. 20460

September 13, 2025

## **SENT BY EMAIL**

Anthony Kinney anthony.kinney@syntechresearch.com SHARDA USA LLC

Subject: Labeling Notification per Pesticide Registration Notice (PRN) 98-10 - Revise Storage and

Disposal section on the label

Product Name: SHARDA DIURON 62.22% + IMAZAPYR 7.78% WDG

Admin Number: 83529-144 EPA Receipt Date: 06/26/2025 Action Case Number: 00660802

## Dear Anthony Kinney:

The U.S. Environmental Protection Agency is in receipt of your application for notification under Pesticide Registration Notice 98-10 for the above referenced product. The EPA has conducted a review of this request for its applicability under PRN 98-10 and finds that the action requested falls within the scope of PRN 98-10.

The labeling submitted with this application has been stamped "Notification" and will be placed in our records.

Should you wish to add/retain a reference to your company's website on your label, then please be aware that the website becomes labeling under the Federal Insecticide, Fungicide, and Rodenticide Act and is subject to review by the EPA. If the website is false or misleading, the product will be considered to be misbranded and sale or distribution of the product is unlawful under FIFRA section 12(a)(1)(E). 40 CFR § 156.10(a)(5) lists examples of statements the EPA may consider false or misleading. In addition, regardless of whether a website is referenced on your product's label, claims made on the website may not substantially differ from those claims approved through the registration process. Therefore, should the EPA find or if it is brought to our attention that a website contains statements or claims substantially differing from statements or claims made in connection with obtaining a FIFRA section 3 registration, the website will be referred to the EPA's Office of Enforcement and Compliance Assurance.

If you have questions, please contact Elizabeth Andrews via email at andrews.elizabeth@epa.gov.

Sincerely,

Kable Bo Davis

Kable Bo Davis, Senior Advisor FHB, RD Office of Pesticide Programs [MASTER LABEL]

DIURON	GROUP	7	HERBICIDE
<b>IMAZAPYR</b>	GROUP	2	HERBICIDE

# Sharda Diuron 62.22% + Imazapyr 7.78% WDG ABN: Emade

[For Bare Ground Vegetation Control.]

ACTIVE INGREDIENT:	WT. BY %
Diuron: 3-[3,4-dichlorophenyl]-1, 1-dimethylurea	62.22%
Imazapyr: 2-[4,5-dihydro-4-methyl-4-(1-methylethyl)-5-oxo-1H-imidazol-2-yl]-3-pyridinecarboxylic acid	7.78%
OTHER INGREDIENTS:	<u>30.00%</u>
TOTAL	100.00%

## KEEP OUT OF REACH OF CHILDREN CAUTION/PRECAUCION

Si usted no entiende la etiqueta, busque a alguien para que se la explique a usted en detalle. (If you do not understand this label, find someone to explain it to you in detail.)

FIRST AID		
IF SWALLOWED:	Immediately call a poison control center or doctor.	
	Have person sip a glass of water if able to swallow.	
	DO NOT induce vomiting unless told to do so by a poison control center or doctor.	
	DO NOT give anything by mouth to an unconscious person.	
IF ON SKIN OR	Take off contaminated clothing.	
CLOTHING:	Rinse skin immediately with plenty of water for 15-20 minutes.	
	Call a poison control center or doctor for treatment advice.	
IF IN EYES:	Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye.	
	Call a poison control center 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	
	mouth-to-mouth if possible.	
	Call a poison control center or doctor for further treatment advice.	
HOTLINE NUMBER		

Have the product container or label with you when calling a poison control center or doctor or going for treatment. For emergency information concerning this product, call your poison control center at **1-800-222-1222**.

[Optional referral statements when booklets and container labels are used:]

[See label booklet for [additional] [complete] [First Aid,] [Precautionary Statements,] [Directions For Use,] and [Storage and Disposal.]

EPA Reg. No. 83529-144 EPA Est. No. XXXXX-XXX

Net Contents: \_\_\_\_\_ [Lbs./Kg.]

Manufactured for:

Sharda USA LLC S U

7217 Lancaster Pike, Suite A Hockessin, Delaware 19707

## NOTIFICATION

83529-144

The applicant has certified that no changes, other than those reported to the Agency have been made to the labeling. The Agency acknowledges this notification by letter dated:

09/13/2025

## PRECAUTIONARY STATEMENTS HAZARDS TO HUMANS AND DOMESTIC ANIMALS CAUTION

Harmful if swallowed or absorbed through skin. Causes moderate eye irritation. Avoid contact with skin or clothing. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco or using the toilet. Remove and wash contaminated clothing.

## PERSONAL PROTECTIVE EQUIPMENT (PPE)

## All mixers, loaders, other applicators, and other handlers must wear:

- Long-sleeved shirt and long pants
- Shoes plus socks
- Chemical-resistant gloves made of any waterproof material including barrier laminate, butyl rubber ≥14 mils, nitrile rubber ≥14 mils, neoprene rubber ≥14 mils, natural rubber (includes natural rubber blends and laminates) ≥14 mils, polyethylene, polyvinyl chloride (PVC) ≥14 mils, or viton ≥14 mils
- Wear a minimum of a NIOSH-approved particulate filtering facepiece respirator with any N, R, or P filter; OR a NIOSH-approved elastomeric particulate respirator with any N, R, or P filter; OR a NIOSH-approved powered air-purifying respirator with a HE filter. Chemical-resistant apron when mixing, loading, or cleaning equipment or spills

#### All pilots, flaggers, and ground boom applicators must wear:

- Long-sleeved shirt and long pants,
- Chemical-resistant gloves, (except for pilots and flaggers),
- Shoes plus socks

See **ENGINEERING CONTROLS** for additional requirements.

#### **USER SAFETY REQUIREMENTS**

Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables exist, use detergent and hot water. Keep and wash PPE separately from other laundry. Discard clothing and other absorbent materials that have been drenched or heavily contaminated with this product's concentrate. **DO NOT** reuse them.

#### **ENGINEERING CONTROLS**

Pilots must use an enclosed cockpit that meets the requirements listed in the Worker Protection Standard (WPS) for agricultural pesticides [40 CFR 170.240(d)(6)].

Flaggers supporting aerial applications must use an enclosed cab that meets the definition in the Worker Protection Standard for Agricultural Pesticides [40 CFR 170.240(d)(5)]. In addition, flaggers must wear long-sleeved shirt, long pants, shoes, and socks.

## **USER SAFETY RECOMMENDATIONS**

#### **Users should:**

- Remove clothing/PPE immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.
- Remove PPE immediately after handling this product. Wash the outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing.

## **ENVIRONMENTAL HAZARDS**

This product is toxic to plants. Drift and run-off may be hazardous to plants in water adjacent to treated areas. **DO NOT** apply directly to water, or to areas where surface water is present or to intertidal areas below the mean highwater mark. **DO NOT** contaminate water when disposing of equipment wash water or rinsate. See **DIRECTIONS FOR USE** for additional precautions and requirements.

## **PHYSICAL AND CHEMICAL HAZARDS**

Spray solutions of **Sharda Diuron 62.22% + Imazapyr 7.78% WDG** must be mixed, stored, and applied only in stainless steel, fiberglass, plastic, and plastic-lined steel containers.

**DO NOT** mix, store, or apply **Sharda Diuron 62.22% + Imazapyr 7.78% WDG** or spray solutions of **Sharda Diuron 62.22% + Imazapyr 7.78% WDG** in unlined steel (except stainless steel) containers or spray tanks.

#### **DIRECTIONS FOR USE**

It is a violation of Federal Law to use this product in a manner inconsistent with its labeling.

**DO NOT** apply this product in a way that will contact workers or other persons, either directly or through drift. Only protected handlers may be in the area during application. For any requirements specific to your State or Tribe, consult the agency responsible for pesticide regulation.

**DO NOT** enter or allow others to enter treated areas until sprays have dried.

Use of this product in certain portions of California, Oregon, and Washington is subject to the January 22, 2004 Order for injunctive

relief in Washington Toxics Coalition et al vs. EPA, C01-0132C (W.D.W.A.). For information, please refer to: [www.epa.gov/endangered-species/endangered-species-case-washington-toxics-coalition-v-epa]

## **PRODUCT INFORMATION**

**Sharda Diuron 62.22% + Imazapyr 7.78% WDG** is a dispersible granule intended to be mixed with water and surfactant(s) for application to non-cropland areas including railroad, utility, pipeline and highway rights-of-way, utility plant sites, petroleum tank farms, pumping installations, fence rows, storage areas, farmyards and around farm buildings, non-irrigation ditch-banks. **Sharda Diuron 62.22% + Imazapyr 7.78% WDG** may also be used for weed control under paved surfaces.

When applied either pre-emergence or post-emergence to weeds, **Sharda Diuron 62.22% + Imazapyr 7.78% WDG** will control most annual and perennial grasses and broadleaf weeds in addition to many brush and vine species and **Sharda Diuron 62.22% + Imazapyr 7.78% WDG** will provide residual control of labeled weeds which germinate in the treated areas. For annual weed control, preferably apply **Sharda Diuron 62.22% + Imazapyr 7.78% WDG** either at late pre-emergence to early post-emergence for best results. For perennial weed control, **Sharda Diuron 62.22% + Imazapyr 7.78% WDG** must be applied post-emergence to the target weeds, since it will not control perennial weeds that are unmerged. For maximum effect, weeds must be growing vigorously at the time of post-emergence application and the spray solution must include a surfactant (refer to the **ADJUVANTS** section). **Sharda Diuron 62.22% + Imazapyr 7.78% WDG** solutions may be broadcast by using ground or aerial equipment or may be applied as a spot treatment by using low-volume techniques.

Clean application equipment after using this product by thoroughly flushing with water.

## **Precautions for Avoiding Injury to Non-Target Plants:**

**Sharda Diuron 62.22% + Imazapyr 7.78% WDG** can occasionally affect non-target or untreated plants by root uptake of the herbicide. Injury or loss of non-target plants may result if **Sharda Diuron 62.22% + Imazapyr 7.78% WDG** is applied onto or near desirable plants, or to areas where their roots extend, or in areas where treated soil may be washed or moved within their drip line.

**Sharda Diuron 62.22% + Imazapyr 7.78% WDG** may injure or kill most desirable plants and crops. Avoid applications of **Sharda Diuron 62.22% + Imazapyr 7.78% WDG** to powdery-dry soil or sand soils when there is little likelihood of rainfall soon after treatment, since subsequent off-target movement of treated soil by water and/or wind may cause damage to adjacent desirable plants or crops.

#### **Restrictions:**

- **DO NOT** exceed 19 lbs./acre (12 lbs. diuron a.i.; 1.5 lbs. imazapyr a.i.) of **Sharda Diuron 62.22% + Imazapyr 7.78% WDG** per application in areas of high rainfall or dense vegetation.
- DO NOT exceed 13 lbs./acre (8 lbs. diuron a.i.; 1.0 imazapyr a.i.) of Sharda Diuron 62.22% + Imazapyr 7.78% WDG per application in all other areas.
- DO NOT apply more than a total of 19 lbs. (12 lbs. diuron a.i.; 1.5 lbs. imazapyr a.i.) Sharda Diuron 62.22% + Imazapyr 7.78% WDG per acre in a 12-month period.
- DO NOT make more than 2 applications per year when using reduced rate.
- **DO NOT** retreat in less than 90 days after first treatment.
- Not registered for use in California.
- **DO NOT** use on food or feed crops.
- **DO NOT** treat irrigation ditches or water used for crop irrigation or for domestic purposes. Keep away from fertilizers, insecticides, fungicides, and seeds.
- **DO NOT** drain or flush equipment on or near desirable plants, or on areas where their roots may extend, or in locations where the chemical may be washed or moved within their dripline.
- **DO NOT** use on lawns, walks, driveways, or tennis courts.
- DO NOT side trim desirable vegetation with this product. Exercise precautions to prevent spray drift onto desirable plants.

#### **MANDATORY SPRAY DRIFT MANAGEMENT**

## **Aerial Applications:**

- **DO NOT** release spray at a height greater than 10 ft. above the vegetative canopy, unless a greater application height is necessary for pilot safety.
- Applicators are required to use a coarse or coarser droplet size (ASABE S5**DO NOT** apply when wind speeds exceed 15 mph at the application site. If wind speed is greater than 10 mph, the boom length must be 65% or less of the wingspan for fixed wing aircraft and 75% or less of the rotor diameter for helicopters. Otherwise, the boom length must be 75% or less of wingspan for fixed-wing aircraft and 90% or less of the rotor diameter for helicopters. Applicators must use ½ swath displacement upwind at the downwind edge of field.
- Nozzles must be oriented, so the spray is directed toward the back of the aircraft.
- **DO NOT** apply when wind speeds exceed 15 mph at the application site.
- **DO NOT** apply during temperature inversions.

#### **Ground Boom Applications:**

• Users must only apply with the nozzle height advised by the manufacturer, but no more than 23 ft. above the ground or crop canopy. unless making a turf, pasture, or rangeland application, in which case applicators may apply with a nozzle height no more than 4 ft. above the ground.

- - For applications prior to the emergence of crops and target weeds, applicators are required to use a coarse or coarser droplet size (ASABE S572.1).
  - For all other applications, applicators are required to use a medium or coarser droplet size (ASABE S572.1).
  - **DO NOT** apply when wind speeds exceed 15 mph at the application site.
  - **DO NOT** apply during temperature inversions.

#### SPRAY DRIFT ADVISORIES

THE APPLICATOR IS RESPONSIBLE FOR AVOIDING OFF-SITE SPRAY DRIFT. BE AWARE OF NEARBY NON-TARGET SITES AND **ENVIRONMENTAL CONDITIONS.** 

#### **IMPORTANCE OF DROPLET SIZE**

An effective way to reduce spray drift is to apply large droplets. Use the largest droplets that provide target pest control. While applying larger droplets will reduce spray drift, the potential for drift will be greater if applications are made improperly or under unfavorable environmental conditions.

#### **Controlling Droplet Size – Ground Boom**

- Volume Increasing the spray volume so that larger droplets are produced will reduce spray drift. Use the highest practical spray volume for the application. If a greater spray volume is needed, consider using a nozzle with a higher flow rate.
- **Pressure** Use the lowest spray pressure advised for the nozzle to produce the target spray volume and droplet size.
- Spray Nozzle Use a spray nozzle that is designed for the intended application. Consider using nozzles designed to reduce drift.

## **Controlling Droplet Size – Aircraft**

 Adjust Nozzles - Follow nozzle manufacturer's instructions for setting up nozzles. Generally, to reduce fine droplets, nozzles must be oriented parallel with the airflow in flight.

#### **BOOM HEIGHT - Ground Boom**

Use the lowest boom height that is compatible with the spray nozzles that will provide uniform coverage. For ground equipment, the boom must remain level with the crop and have minimal bounce.

#### **RELEASE HEIGHT – Aircraft**

Higher release heights increase the potential for spray drift.

## **SHIELDED SPRAYERS**

Shielding the boom or individual nozzles can reduce spray drift. Consider using shielded sprayers. Verify that the shields are not interfering with the uniform deposition of the spray on the target area.

## **TEMPERATURE AND HUMIDITY**

When making applications in hot and dry conditions, use larger droplets to reduce effects of evaporation.

## **TEMPERATURE INVERSIONS**

Drift potential is high during a temperature inversion. Temperature inversions are characterized by increasing temperature with altitude and are common on nights with limited cloud cover and light to no wind. The presence of an inversion can be indicated by ground fog or by the movement of smoke from a ground source or an aircraft smoke generator. Smoke that layers and moves laterally in a concentrated cloud (under low wind conditions) indicates an inversion, while smoke that moves upward and rapidly dissipates indicates good vertical air mixing. Avoid applications during temperature inversions.

## **WIND**

Drift potential generally increases with wind speed. AVOID APPLICATIONS DURING GUSTY WIND CONDITIONS. Applicators need to be familiar with local wind patterns and terrain that could affect spray drift.

#### WIND EROSION

Avoid treating powdery dry or light sandy soils when conditions are favorable for wind erosion. Under these conditions, the soil surface must first be settled by rainfall or irrigation.

## **Aerial Application Restrictions:**

- 1. Applicators are required to use a coarse or coarser droplet size (ASABE S572) or, if specifically using a spinning atomizer nozzle, applicators are required to use a volume mean diameter (VMD) of 385 microns or greater for release heights below 10 feet; Applicators are required to use a very coarse or coarser droplet size or, if specifically using a spinning atomizer nozzle, applicators are required to use a VMD of 475 microns or greater for release heights above 10 ft.; Applicators must consider the effects of nozzle orientation and flight speed when determining droplet size.
- 2. Applicators are required to use upwind swath displacement.
- 3. The spray boom must be mounted on the aircraft so as to minimize drift caused by wing tip vortices. The boom length must not exceed 60% of the wingspan or 90% of the rotor blade diameter to reduce spray drift.
- 4. Applications with wind speeds less than 3 mph and with wind speeds greater than 10 mph are prohibited.
- 5. Applications into temperature inversions are prohibited.
- 6. **DO NOT** apply by air if sensitive non-target crops are within 100 ft. of the application site.

Page 5 of 12

## **Ground Boom Application Restrictions:**

Apply with nozzle height no more than 4 ft. above the ground or plant canopy and coarse or coarser droplet size (ASABE S572) or, if specifically using a spinning atomizer nozzle, applicators are required to use a volume mean diameter (VMD) of 385 microns or greater. Use the lowest nozzle height consistent with safety and efficacy. Direct spray into target vegetation.

Applications with wind speeds greater than 10 mph are prohibited. Applications into temperature inversions are prohibited.

Aerial Application Methods and Equipment: Use 2 or more gallons of water per acre. The actual minimum spray volume per acre is determined by the spray equipment used. Use adequate spray volume to provide accurate and uniform distribution of spray particles over the treated areas and to avoid spray drift.

#### WEEDS CONTROLLED BY SHARDA DIURON 62.22% + IMAZAPYR 7.78% WDG

When used as directed, Sharda Diuron 62.22% + Imazapyr 7.78% WDG provides pre-emergence or post-emergence control with residual control of the weed species listed below. Annual weeds may be controlled by pre-emergence or post-emergence applications of Sharda Diuron 62.22% + Imazapyr 7.78% WDG. Established biennial and perennial vegetation may be controlled by post-emergence treatment of Sharda Diuron 62.22% + Imazapyr 7.78% WDG.

The length of residual weed control is dependent upon the weed spectrum present, the rate applied, and weather conditions. Residual control can be extended in areas with susceptible weed species, higher Sharda Diuron 62.22% + Imazapyr 7.78% WDG use rates, lower precipitation, and cooler soil temperatures. Residual control may be diminished when higher than average rainfall occurs.

Resistant Biotypes: Some weeds listed below may have naturally-occurring biotypes (plants within a given species that have a slightly different but distinct genetic makeup from other plants of that species) that are not effectively controlled by this and/or other herbicides (including sulfometuron-methyl) with the ALS/AHAS enzyme-inhibiting mode of action. If naturally-occurring ALS/AHASresistant biotypes are present in an area, Sharda Diuron 62.22% + Imazapyr 7.78% WDG must be tank-mixed or applied sequentially with a registered herbicide that depends on a different mode of action to ensure control.

WEEDS CONTROLLED <sup>1</sup>		
	Grasses	
Common Name	Scientific Name	Growth Habit <sup>2</sup>
Annual Bluegrass	Poa annua	A
Annual Ryegrass	Lolium multiflorum	A
Annual Sweet Vernalgrass	Anthoxanthum odoratum	A
Bahiagrass <sup>7</sup>	Paspalum notatum	P
Barnyardgrass	Echinochloa crusgalli	A
Beardgrass	Andropogon spp.	P
Bermudagrass <sup>7,8,9</sup>	Cynodon dactylon	P
Big Bluestem <sup>7</sup>	Andropogon gerardii	P
Broadleaf Signalgrass	Brachiaria platyphylla	A
Canada Bluegrass	Poa compressa	Р
Cattail	Typha spp.	P
Cheat	Bromus secalinus	A
Cogongrass	Imperata cylindrica	Р
Crabgrass	Digitaria spp.	A
Dallisgrass <sup>7</sup>	Paspalum dilatatum	Р
Downy Brome	Bromus tectorum	A
Fall Panicum	Panicum dichotomiflorum	A
Feathertop	Pennisetum villosum	Р
Fescue	Festuca spp.	A/P
Foxtail	Setaria spp.	A
Goosegrass	Eleusine indica	A
Guineagrass	Panicum maximum	Р
Italian Ryegrass	Lolium multiflorum	A
Johnsongrass	Sorghum halepense	Р
Kentucky Bluegrass	Poa pratensis	Р
Kyllinga	Cyperus brevifolius	A
Lovegrass	Eragrostis spp.	A/P
Maidencane	Arundinaria amabilis	Р
Orchardgrass	Dactylis glomerata	Р
Paragrass	Brachiaria mutica	Р
Peppergrass	Lepidium virginicum	A
Phragmites	Phragmites australis	Р
Prairie Cordgrass	Spartina pectinata	Р
Prairie Threeawn	Aristida oligantha	Р
Quackgrass	Agropyron repens	P

		Page <b>6</b> of <b>1</b> 2
Rattail Fescue	Vulpia myuros	A
Reed Canarygrass	Phalaris arundinacea	P
Ricegrass	Oryzopsis hymenoides	A
Saltgrass <sup>7,8,9</sup>	Distichlis stricta	P
Sand Dropseed <sup>7</sup>	Sporobolus cryptandrus	Р
Sandbur	Cenchrus spp.	A
Smooth Brome	Bromus inermis	P
Sprangletop <sup>6,7</sup>	Leptochloa spp.	A
Timothy	Phleum pratense	Р
Torpedograss	Panicum repens	Р
Vaseygrass	Paspalum urvillei	Р
Velvetgrass	Holcus lanatus	A
Wild Barley	Hordeum spp.	A
Wild Oats	Avena fatua	A
Wirestem Muhly	Muhlenbergia frondosa	Р
Witchgrass	Panicum capillare	A
	Broadleaf Weeds <sup>1</sup>	
Common Name	Scientific Name	Growth Habit <sup>2</sup>
Arrowwood	Pluchea sericea	A
Ageratum	Asteraceae houstonianum	P
Broom Snakeweed <sup>3</sup>	Gutierrezia sarothrae	P
Bu Thistle	Cirsium vulgare	В
Burdock	Arctium spp.	В
Canada Thistle <sup>7</sup>	Cirsium arvense	P
Caro Ina Geranium	Geranium carolinianum	A
		A
Claver	Mollugo verticillata	
Clover	Trifolium spp.	A/P
Cocklebur	Xanthium strumarium	A
Common Chickweed	Stellaria media	A
Common Ragweed	Ambrosia artemisiifolia	A
Corn Spurry	Spergula arvensis	P
Dandelion	Taraxacum officinale	P
Dayflower	Commelina spp.	A/P
Desert Came Thorn	Alhagi pseudalhagi	P
Diffuse Knapweed	Centaurea diffusa	A
Dock	Rumex spp.	P
Dogfennel	Eupatorium capillifolium	A
Filaree	Erodium spp.	A
Fleabane	Erigeron spp.	A
Giant Ragweed <sup>7</sup>	Ambrosia trifida	A
Goldenrod	Solidago spp.	Р
Grey Rabbitbrush	Chrysothamnus nauseosus	P
Gromwell	Lithospermum spp.	A
Groundcherry	Physalis spp.	A/P
Hawksbeard	Crepis spp.	A
Hoary Vervain	Verbena stricta	P
Horsenettle	Solanum carolinense	P
Horseweed	Conyza canadensis	A
Indian Mustard	Brassica juncea	A
Japanese Bamboo	Polygonum cuspidatum	Р
Knawel	Scleranthus annuus	A
Kochia <sup>3</sup>	Kochia scoparia	A
Lambsquarters	Chenopodium album	A
Lespedeza	Lespedeza spp.	P
Little Mallow	Malva parviflora	В
Marigold	Tagetes spp.	P
Milkweed	Asclepias spp.	Р
Miners Lettuce	Montia perfoliata	A
Morningglory	Ipomoea spp.	A/P
Mullein	Verbascum spp.	В
Nettleleaf Goosefoot	Chenopodium murale	A
Oxeye Daisy	Chrysanthemum leucanthemum	Р
Pennycress	Thlaspi spp.	A

Danamanand	Louidina	Δ
Pepperweed	Lepidium spp.	A
Pigweed <sup>6</sup>	Amaranthus spp.	A
Pineapple Weed	Matricaria matricarioides	P
Plantain	Plantago spp.	Р
Pokeweed	Phytolacca americana	Р
Prickly Sida	Sida spinosa	A
Primrose	Oenothera kunthiana	Р
Puncturevine	Tribulus terrestris	A
Purple Loosestrife <sup>3</sup>	Lythrum salicaria	Р
Purslane	Portulaca spp.	A
Ragweed	Ambrosia spp.	A
Rush Skeletonweed <sup>3</sup>	Chondrilla juncea	В
Russian Knapweed	Centaurea repens	Р
Russian Thistle <sup>3</sup>	Salsola kali	A
Saltbush	Atriplex spp.	A
Sesbania	Sesbania spp.	A
Sicklepod	Cassia obtusifolia	A
Silverleaf Nightshade	Solanum elaeagnifolium	Р
Shepherd's Purse	Capsella bursa-pastoris	A
Smartweed	Polygonum spp.	A/P
Sorrell	Rumex spp.	P
Sowthistle	Sonchus spp.	A
Speedwell	Veronica spp.	A
Stinging Nettle <sup>3</sup>	Urtica dioica	P
Sunflower	Helianthus spp.	A
Sweet Clover	Melilotus spp.	A/B
	Descurainia pinnata	
Tansymustard Texas Thistle	Cirsium texanum	A P
Velvetleaf	Abutilon theophrasti	A
Western Ragweed	Ambrosia psilostachya	P
Wild Buckwheat	Polygonum convolvulus	A
1147116		
Wild Carrot	Daucus carota	B
Wild Lettuce	Lactuca spp.	A/B
Wild Lettuce Wild Parsnip	Lactuca spp. Pastinaca sativa	A/B B
Wild Lettuce Wild Parsnip Wild Radish	Lactuca spp. Pastinaca sativa Raphanus raphanistrum	A/B B B
Wild Lettuce Wild Parsnip Wild Radish Wild Turnip	Lactuca spp. Pastinaca sativa Raphanus raphanistrum Brassica campestris	A/B B B B
Wild Lettuce Wild Parsnip Wild Radish Wild Turnip Woollyleaf Bursage	Lactuca spp. Pastinaca sativa Raphanus raphanistrum Brassica campestris Franseria tomentosa	A/B B B B
Wild Lettuce Wild Parsnip Wild Radish Wild Turnip Woollyleaf Bursage Yellow Starthistle	Lactuca spp. Pastinaca sativa Raphanus raphanistrum Brassica campestris Franseria tomentosa Centaurea solstitialis	A/B B B P A
Wild Lettuce Wild Parsnip Wild Radish Wild Turnip Woollyleaf Bursage	Lactuca spp. Pastinaca sativa Raphanus raphanistrum Brassica campestris Franseria tomentosa Centaurea solstitialis Oxalis stricta	A/B B B B
Wild Lettuce Wild Parsnip Wild Radish Wild Turnip Woollyleaf Bursage Yellow Starthistle Yellow Woodsorrel	Lactuca spp. Pastinaca sativa Raphanus raphanistrum Brassica campestris Franseria tomentosa Centaurea solstitialis Oxalis stricta Vines and Brambles¹	A/B B B P A
Wild Lettuce Wild Parsnip Wild Radish Wild Turnip Woollyleaf Bursage Yellow Starthistle Yellow Woodsorrel  Common Name	Lactuca spp.  Pastinaca sativa  Raphanus raphanistrum  Brassica campestris  Franseria tomentosa  Centaurea solstitialis  Oxalis stricta  Vines and Brambles <sup>1</sup> Scientific Name	A/B B B B P A P Growth Habit²
Wild Lettuce Wild Parsnip Wild Radish Wild Turnip Woollyleaf Bursage Yellow Starthistle Yellow Woodsorrel  Common Name Blackberry <sup>4</sup>	Lactuca spp.  Pastinaca sativa  Raphanus raphanistrum  Brassica campestris  Franseria tomentosa  Centaurea solstitialis  Oxalis stricta  Vines and Brambles¹  Scientific Name  Rubus spp.	A/B B B B P A P Growth Habit²
Wild Lettuce Wild Parsnip Wild Radish Wild Turnip Woollyleaf Bursage Yellow Starthistle Yellow Woodsorrel  Common Name Blackberry <sup>4</sup> Dewberry <sup>4</sup>	Lactuca spp.  Pastinaca sativa  Raphanus raphanistrum  Brassica campestris  Franseria tomentosa  Centaurea solstitialis  Oxalis stricta  Vines and Brambles¹  Scientific Name  Rubus spp.  Rubus spp.	A/B B B B P A P Growth Habit²
Wild Lettuce Wild Parsnip Wild Radish Wild Turnip Woollyleaf Bursage Yellow Starthistle Yellow Woodsorrel  Common Name Blackberry <sup>4</sup> Dewberry <sup>4</sup> Field Bindweed	Lactuca spp.  Pastinaca sativa  Raphanus raphanistrum  Brassica campestris  Franseria tomentosa  Centaurea solstitialis  Oxalis stricta  Vines and Brambles¹  Scientific Name  Rubus spp.  Rubus spp.  Convolvulus arvensis	A/B B B B P A P Growth Habit²
Wild Lettuce Wild Parsnip Wild Radish Wild Turnip Woollyleaf Bursage Yellow Starthistle Yellow Woodsorrel  Common Name Blackberry <sup>4</sup> Dewberry <sup>4</sup> Field Bindweed Greenbriar	Lactuca spp.  Pastinaca sativa  Raphanus raphanistrum  Brassica campestris  Franseria tomentosa  Centaurea solstitialis  Oxalis stricta  Vines and Brambles¹  Scientific Name  Rubus spp.  Rubus spp.  Convolvulus arvensis  Smilax spp.	A/B B B B P A P  Growth Habit <sup>2</sup> P
Wild Lettuce Wild Parsnip Wild Radish Wild Turnip Woollyleaf Bursage Yellow Starthistle Yellow Woodsorrel  Common Name Blackberry <sup>4</sup> Dewberry <sup>4</sup> Field Bindweed	Lactuca spp.  Pastinaca sativa  Raphanus raphanistrum  Brassica campestris  Franseria tomentosa  Centaurea solstitialis  Oxalis stricta  Vines and Brambles¹  Scientific Name  Rubus spp.  Rubus spp.  Convolvulus arvensis	A/B B B B P A P  Growth Habit <sup>2</sup> P P
Wild Lettuce Wild Parsnip Wild Radish Wild Turnip Woollyleaf Bursage Yellow Starthistle Yellow Woodsorrel  Common Name Blackberry <sup>4</sup> Dewberry <sup>4</sup> Field Bindweed Greenbriar Hedge Bindweed Honeysuckle	Lactuca spp.  Pastinaca sativa  Raphanus raphanistrum  Brassica campestris  Franseria tomentosa  Centaurea solstitialis  Oxalis stricta  Vines and Brambles¹  Scientific Name  Rubus spp.  Rubus spp.  Convolvulus arvensis  Smilax spp.	A/B B B B P A P  Are personal and the second
Wild Lettuce Wild Parsnip Wild Radish Wild Turnip Woollyleaf Bursage Yellow Starthistle Yellow Woodsorrel  Common Name Blackberry <sup>4</sup> Dewberry <sup>4</sup> Field Bindweed Greenbriar Hedge Bindweed Honeysuckle	Lactuca spp.  Pastinaca sativa  Raphanus raphanistrum  Brassica campestris  Franseria tomentosa  Centaurea solstitialis  Oxalis stricta  Vines and Brambles¹  Scientific Name  Rubus spp.  Rubus spp.  Convolvulus arvensis  Smilax spp.  Calystegia sepium	A/B B B B P A P  Are percentage of the second secon
Wild Lettuce Wild Parsnip Wild Radish Wild Turnip Woollyleaf Bursage Yellow Starthistle Yellow Woodsorrel  Common Name Blackberry <sup>4</sup> Dewberry <sup>4</sup> Field Bindweed Greenbriar Hedge Bindweed Honeysuckle Kudzu <sup>5</sup>	Lactuca spp.  Pastinaca sativa  Raphanus raphanistrum  Brassica campestris  Franseria tomentosa  Centaurea solstitialis  Oxalis stricta  Vines and Brambles¹  Scientific Name  Rubus spp.  Rubus spp.  Convolvulus arvensis  Smilax spp.  Calystegia sepium  Lonicera spp.	A/B B B B P A P  Growth Habit² P P P P A P
Wild Lettuce Wild Parsnip Wild Radish Wild Turnip Woollyleaf Bursage Yellow Starthistle Yellow Woodsorrel  Common Name Blackberry <sup>4</sup> Dewberry <sup>4</sup> Field Bindweed Greenbriar Hedge Bindweed Honeysuckle Kudzu <sup>5</sup> Morningglory	Lactuca spp.  Pastinaca sativa  Raphanus raphanistrum  Brassica campestris  Franseria tomentosa  Centaurea solstitialis  Oxalis stricta  Vines and Brambles¹  Scientific Name  Rubus spp.  Rubus spp.  Convolvulus arvensis  Smilax spp.  Calystegia sepium  Lonicera spp.  Pueraria lobata	A/B B B B P A P  Growth Habit² P P P P P A P P P P P P P P P P P P P
Wild Lettuce Wild Parsnip Wild Radish Wild Turnip Woollyleaf Bursage Yellow Starthistle Yellow Woodsorrel  Common Name Blackberry <sup>4</sup> Dewberry <sup>4</sup> Field Bindweed Greenbriar Hedge Bindweed Honeysuckle Kudzu <sup>5</sup> Morningglory Poison lvy	Lactuca spp.  Pastinaca sativa  Raphanus raphanistrum  Brassica campestris  Franseria tomentosa  Centaurea solstitialis  Oxalis stricta  Vines and Brambles¹  Scientific Name  Rubus spp.  Rubus spp.  Convolvulus arvensis  Smilax spp.  Calystegia sepium  Lonicera spp.  Pueraria lobata  Ipomoea spp.  Rhus radicans	A/B B B B B P A P  Growth Habit² P P P P A P A P A P A P A P A P A P A/P
Wild Lettuce Wild Parsnip Wild Radish Wild Turnip Woollyleaf Bursage Yellow Starthistle Yellow Woodsorrel  Common Name Blackberry <sup>4</sup> Dewberry <sup>4</sup> Field Bindweed Greenbriar Hedge Bindweed Honeysuckle Kudzu <sup>5</sup> Morningglory Poison lvy Redvine	Lactuca spp.  Pastinaca sativa  Raphanus raphanistrum  Brassica campestris  Franseria tomentosa  Centaurea solstitialis  Oxalis stricta  Vines and Brambles¹  Scientific Name  Rubus spp.  Rubus spp.  Convolvulus arvensis  Smilax spp.  Calystegia sepium  Lonicera spp.  Pueraria lobata  Ipomoea spp.	A/B B B B B P A P  Growth Habit² P P P P A A P A P A P A P A P A P A P
Wild Lettuce Wild Parsnip Wild Radish Wild Turnip Woollyleaf Bursage Yellow Starthistle Yellow Woodsorrel  Common Name Blackberry <sup>4</sup> Dewberry <sup>4</sup> Field Bindweed Greenbriar Hedge Bindweed Honeysuckle Kudzu <sup>5</sup> Morningglory Poison Ivy Redvine Trumpetcreeper <sup>7</sup>	Lactuca spp.  Pastinaca sativa  Raphanus raphanistrum  Brassica campestris  Franseria tomentosa  Centaurea solstitialis  Oxalis stricta  Vines and Brambles¹  Scientific Name  Rubus spp.  Rubus spp.  Convolvulus arvensis  Smilax spp.  Calystegia sepium  Lonicera spp.  Pueraria lobata Ipomoea spp.  Rhus radicans  Brunnichia cirrhosa  Campsis radicans	A/B B B B B P A P A P  Growth Habit² P P P P P A A P P P A P A P P P P P P
Wild Lettuce Wild Parsnip Wild Radish Wild Turnip Woollyleaf Bursage Yellow Starthistle Yellow Woodsorrel  Common Name Blackberry <sup>4</sup> Dewberry <sup>4</sup> Field Bindweed Greenbriar Hedge Bindweed Honeysuckle Kudzu <sup>5</sup> Morningglory Poison Ivy Redvine Trumpetcreeper <sup>7</sup> Virginia Creeper <sup>7</sup>	Lactuca spp.  Pastinaca sativa  Raphanus raphanistrum  Brassica campestris  Franseria tomentosa  Centaurea solstitialis  Oxalis stricta  Vines and Brambles¹  Scientific Name  Rubus spp.  Rubus spp.  Convolvulus arvensis  Smilax spp.  Calystegia sepium  Lonicera spp.  Pueraria lobata  Ipomoea spp.  Rhus radicans  Brunnichia cirrhosa  Campsis radicans  Parthenocissus quinquefolia	A/B B B B B P A P A P  Growth Habit² P P P P A A P P P P A P A P P P P P P
Wild Lettuce Wild Parsnip Wild Radish Wild Turnip Woollyleaf Bursage Yellow Starthistle Yellow Woodsorrel  Common Name Blackberry <sup>4</sup> Dewberry <sup>4</sup> Field Bindweed Greenbriar Hedge Bindweed Honeysuckle Kudzu <sup>5</sup> Morningglory Poison Ivy Redvine Trumpetcreeper <sup>7</sup> Virginia Creeper <sup>7</sup> Wild Buckwheat	Lactuca spp.  Pastinaca sativa  Raphanus raphanistrum  Brassica campestris  Franseria tomentosa  Centaurea solstitialis  Oxalis stricta  Vines and Brambles¹  Scientific Name  Rubus spp.  Rubus spp.  Convolvulus arvensis  Smilax spp.  Calystegia sepium  Lonicera spp.  Pueraria lobata  Ipomoea spp.  Rhus radicans  Brunnichia cirrhosa  Campsis radicans  Parthenocissus quinquefolia  Polygonum convolvulus	A/B B B B B P A P A P  Growth Habit² P P P P A A P P P A P P A P P P P A/P P P P
Wild Lettuce Wild Parsnip Wild Radish Wild Turnip Woollyleaf Bursage Yellow Starthistle Yellow Woodsorrel  Common Name Blackberry <sup>4</sup> Dewberry <sup>4</sup> Field Bindweed Greenbriar Hedge Bindweed Honeysuckle Kudzu <sup>5</sup> Morningglory Poison Ivy Redvine Trumpetcreeper <sup>7</sup> Virginia Creeper <sup>7</sup> Wild Buckwheat Wild Grape	Lactuca spp.  Pastinaca sativa  Raphanus raphanistrum  Brassica campestris  Franseria tomentosa  Centaurea solstitialis  Oxalis stricta  Vines and Brambles¹  Scientific Name  Rubus spp.  Rubus spp.  Convolvulus arvensis  Smilax spp.  Calystegia sepium  Lonicera spp.  Pueraria lobata  Ipomoea spp.  Rhus radicans  Brunnichia cirrhosa  Campsis radicans  Parthenocissus quinquefolia  Polygonum convolvulus  Vitis spp.	A/B B B B B P A P A P   Growth Habit² P P P P P A A P P P P P A P P P P P P
Wild Lettuce Wild Parsnip Wild Radish Wild Turnip Woollyleaf Bursage Yellow Starthistle Yellow Woodsorrel  Common Name Blackberry <sup>4</sup> Dewberry <sup>4</sup> Field Bindweed Greenbriar Hedge Bindweed Honeysuckle Kudzu <sup>5</sup> Morningglory Poison Ivy Redvine Trumpetcreeper <sup>7</sup> Virginia Creeper <sup>7</sup> Wild Buckwheat	Lactuca spp.  Pastinaca sativa  Raphanus raphanistrum  Brassica campestris  Franseria tomentosa  Centaurea solstitialis  Oxalis stricta  Vines and Brambles¹  Scientific Name  Rubus spp.  Rubus spp.  Convolvulus arvensis  Smilax spp.  Calystegia sepium  Lonicera spp.  Pueraria lobata  Ipomoea spp.  Rhus radicans  Brunnichia cirrhosa  Campsis radicans  Parthenocissus quinquefolia  Polygonum convolvulus  Vitis spp.  Rosa spp.	A/B B B B B P A P A P
Wild Lettuce Wild Parsnip Wild Radish Wild Turnip Woollyleaf Bursage Yellow Starthistle Yellow Woodsorrel  Common Name Blackberry <sup>4</sup> Dewberry <sup>4</sup> Field Bindweed Greenbriar Hedge Bindweed Honeysuckle Kudzu <sup>5</sup> Morningglory Poison Ivy Redvine Trumpetcreeper <sup>7</sup> Virginia Creeper <sup>7</sup> Wild Buckwheat Wild Grape Wild Rose	Lactuca spp.  Pastinaca sativa  Raphanus raphanistrum  Brassica campestris  Franseria tomentosa  Centaurea solstitialis  Oxalis stricta  Vines and Brambles¹  Scientific Name  Rubus spp.  Rubus spp.  Convolvulus arvensis  Smilax spp.  Calystegia sepium  Lonicera spp.  Pueraria lobata  Ipomoea spp.  Rhus radicans  Brunnichia cirrhosa  Campsis radicans  Parthenocissus quinquefolia  Polygonum convolvulus  Vitis spp.  Rosa spp.  Brush Species¹	A/B B B B B P A P A P  Growth Habit² P P P P P A A P P P P P A P P P P P P
Wild Lettuce Wild Parsnip Wild Radish Wild Turnip Woollyleaf Bursage Yellow Starthistle Yellow Woodsorrel  Common Name Blackberry <sup>4</sup> Dewberry <sup>4</sup> Field Bindweed Greenbriar Hedge Bindweed Honeysuckle Kudzu <sup>5</sup> Morningglory Poison Ivy Redvine Trumpetcreeper <sup>7</sup> Virginia Creeper <sup>7</sup> Wild Buckwheat Wild Grape Wild Rose  Common Name	Lactuca spp. Pastinaca sativa Raphanus raphanistrum Brassica campestris Franseria tomentosa Centaurea solstitialis Oxalis stricta Vines and Brambles¹ Scientific Name Rubus spp. Rubus spp. Convolvulus arvensis Smilax spp. Calystegia sepium Lonicera spp. Pueraria lobata Ipomoea spp. Rhus radicans Brunnichia cirrhosa Campsis radicans Parthenocissus quinquefolia Polygonum convolvulus Vitis spp. Rosa spp.  Brush Species¹ Scientific Name	A/B B B B B P A P  Growth Habit²  P P P P A A P P P P A/P P P P P P P P
Wild Lettuce Wild Parsnip Wild Radish Wild Turnip Woollyleaf Bursage Yellow Starthistle Yellow Woodsorrel  Common Name Blackberry <sup>4</sup> Dewberry <sup>4</sup> Field Bindweed Greenbriar Hedge Bindweed Honeysuckle Kudzu <sup>5</sup> Morningglory Poison Ivy Redvine Trumpetcreeper <sup>7</sup> Virginia Creeper <sup>7</sup> Wild Buckwheat Wild Grape Wild Rose  Common Name Alder	Lactuca spp.  Pastinaca sativa  Raphanus raphanistrum  Brassica campestris  Franseria tomentosa  Centaurea solstitialis  Oxalis stricta  Vines and Brambles¹  Scientific Name  Rubus spp.  Rubus spp.  Convolvulus arvensis  Smilax spp.  Calystegia sepium  Lonicera spp.  Pueraria lobata  Ipomoea spp.  Rhus radicans  Brunnichia cirrhosa  Campsis radicans  Parthenocissus quinquefolia  Polygonum convolvulus  Vitis spp.  Rosa spp.  Brush Species¹  Scientific Name  Alnus sp.	A/B B B B B P A P A P  Growth Habit²  P P P P A A P P P P A/P P P P P P P P
Wild Lettuce Wild Parsnip Wild Radish Wild Turnip Woollyleaf Bursage Yellow Starthistle Yellow Woodsorrel  Common Name Blackberry <sup>4</sup> Dewberry <sup>4</sup> Field Bindweed Greenbriar Hedge Bindweed Honeysuckle Kudzu <sup>5</sup> Morningglory Poison Ivy Redvine Trumpetcreeper <sup>7</sup> Virginia Creeper <sup>7</sup> Wild Buckwheat Wild Grape Wild Rose  Common Name Alder American Beech	Lactuca spp. Pastinaca sativa Raphanus raphanistrum Brassica campestris Franseria tomentosa Centaurea solstitialis Oxalis stricta Vines and Brambles¹ Scientific Name Rubus spp. Rubus spp. Convolvulus arvensis Smilax spp. Calystegia sepium Lonicera spp. Pueraria lobata Ipomoea spp. Rhus radicans Brunnichia cirrhosa Campsis radicans Parthenocissus quinquefolia Polygonum convolvulus Vitis spp. Rosa spp. Brush Species¹ Scientific Name Alnus sp. Fagus grandifolia	A/B B B B B P A P A P  Growth Habit² P P P P A A P P P A P P P P P P P P P
Wild Lettuce Wild Parsnip Wild Radish Wild Turnip Woollyleaf Bursage Yellow Starthistle Yellow Woodsorrel  Common Name Blackberry <sup>4</sup> Dewberry <sup>4</sup> Field Bindweed Greenbriar Hedge Bindweed Honeysuckle Kudzu <sup>5</sup> Morningglory Poison Ivy Redvine Trumpetcreeper <sup>7</sup> Virginia Creeper <sup>7</sup> Wild Buckwheat Wild Grape Wild Rose  Common Name Alder American Beech Ash	Lactuca spp. Pastinaca sativa Raphanus raphanistrum Brassica campestris Franseria tomentosa Centaurea solstitialis Oxalis stricta Vines and Brambles¹ Scientific Name Rubus spp. Rubus spp. Convolvulus arvensis Smilax spp. Calystegia sepium Lonicera spp. Pueraria lobata Ipomoea spp. Rhus radicans Brunnichia cirrhosa Campsis radicans Parthenocissus quinquefolia Polygonum convolvulus Vitis spp. Rosa spp. Brush Species¹ Scientific Name Alnus sp. Fagus grandifolia Fraxinus spp.	A/B B B B B P A P A P   Growth Habit² P P P P A A P P P A P P P P P P P P P
Wild Lettuce Wild Parsnip Wild Radish Wild Turnip Woollyleaf Bursage Yellow Starthistle Yellow Woodsorrel  Common Name Blackberry <sup>4</sup> Dewberry <sup>4</sup> Field Bindweed Greenbriar Hedge Bindweed Honeysuckle Kudzu <sup>5</sup> Morningglory Poison Ivy Redvine Trumpetcreeper <sup>7</sup> Virginia Creeper <sup>7</sup> Wild Buckwheat Wild Grape Wild Rose  Common Name Alder American Beech	Lactuca spp. Pastinaca sativa Raphanus raphanistrum Brassica campestris Franseria tomentosa Centaurea solstitialis Oxalis stricta Vines and Brambles¹ Scientific Name Rubus spp. Rubus spp. Convolvulus arvensis Smilax spp. Calystegia sepium Lonicera spp. Pueraria lobata Ipomoea spp. Rhus radicans Brunnichia cirrhosa Campsis radicans Parthenocissus quinquefolia Polygonum convolvulus Vitis spp. Rosa spp. Brush Species¹ Scientific Name Alnus sp. Fagus grandifolia	A/B B B B B P A P A P  Growth Habit² P P P P A A P P P A P P A P P P P P P

Black Locust <sup>10</sup>	Robina pseudoacacia	Р
Black Gum	Nyssa sylvatica	Р
Boxelder	Acer negundo	Р
Cherry	Prunus spp.	Р
Chinaberry	Melia azedarach	Р
Dogwood	Cornus spp.	Р
Elm <sup>11</sup>	Ulmus spp.	Р
Hawthorn	Crataegus spp.	Р
Hickory	Carya spp.	Р
Honeylocust <sup>10</sup>	Gleditsia triacanthos	Р
Maple	Acer spp.	Р
Mulberry	Morus spp.	Р
Oak	Quercus spp.	Р
Persimmon	Diospyros virginiana	Р
Pine <sup>10</sup>	Pinus spp.	Р
Poplar	Populus spp.	Р
Privet	Ligustrum vulgare	Р
Red Alder	Alnus rubra	Р
Red Maple	Acer rubrum	Р
Russian Olive	Elaeagnus angustifolia	Р
Sassafras	Sassafras albidum	Р
Sourwood	Oxydendrum arboretum	Р
Sweetgum	Liquidambar styraciflua	Р
Water Willow	Justicia americana	Р
Willow	Salix spp.	Р
Yellow Poplar	Liriodendron tulipifera	Р

<sup>&</sup>lt;sup>1</sup>The higher rates must be used where heavy or well-established infestations occur.

#### **ADJUVANTS**

Always use a spray adjuvant for post-emergence applications of Sharda Diuron 62.22% + Imazapyr 7.78% WDG.

**Nonionic Surfactants:** Use a nonionic surfactant at the rate of 0.25% v/v or higher of the total spray volume (0.25% v/v is equivalent to 1 quart in 100 gallons) in accordance with the surfactant labeling. For best results, select a nonionic surfactant with a HLB (hydrophilic to lipophilic balance) ratio between 12 and 17 with at least 70% surfactant in the formulated product. Alcohols, fatty acids, horticultural spray oils, ethylene glycol or diethylene glycol must not be considered as surfactants to meet these requirements.

Methylated Seed Oils or Vegetable Oil Concentrates: To aid in Sharda Diuron 62.22% + Imazapyr 7.78% WDG deposition and uptake by plants under moisture or temperature stress, methylated seed oil or vegetable oil concentrate may be used at 1.5 - 2 pints per acre. When using spray volumes greater than 30 gals. per acre, mix methylated seed oil or vegetable oil concentrate at a rate of 1% of the total spray volume or alternatively use a nonionic surfactant as described above. Methylated seed oil is the adjuvant of choice for enhanced control of perennial weeds.

**Silicone-Based Surfactants:** Silicone-based surfactants allow greater spreading of the spray droplet on the leaf surface, compared to conventional nonionic surfactants. However, some silicone-based surfactants may dry too quickly, limiting herbicide uptake. Refer to the surfactant manufacturer's label for specifications.

**Fertilizer/Surfactant Blends:** Nitrogen-based liquid fertilizers including 28%N, 32%N, 10-34-0, or ammonium sulfate may be used at a rate of 2 – 3 pints per acre with **Sharda Diuron 62.22% + Imazapyr 7.78% WDG** in combination with the specified rate of nonionic surfactant, methylated seed oil or vegetable oil concentrate. Tank mixes with nitrogen-based fertilizers without a nonionic surfactant, methylated seed oil or vegetable oil concentrate is not advised.

<sup>&</sup>lt;sup>2</sup>Growth Habit - A = Annual, B = Biennial, P = Perennial

<sup>&</sup>lt;sup>3</sup>For best results, early post-emergence applications are required.

<sup>&</sup>lt;sup>4</sup>Control is species dependent. Some Rubus species may not be completely controlled.

<sup>&</sup>lt;sup>5</sup>Use a minimum of 75 GPA - Control of established stands may require repeat applications.

<sup>&</sup>lt;sup>6</sup>Control is species dependent. A tank-mix with a herbicide containing pendimethalin for pre-emergence control and/or a post-emergence application of a labeled herbicide may be required.

<sup>&</sup>lt;sup>7</sup>Use at least 13 lbs. **Sharda Diuron 62.22% + Imazapyr 7.78% WDG** per acre.

<sup>&</sup>lt;sup>8</sup>For best results, tank-mix with a herbicide containing sulfometuron-methyl.

<sup>&</sup>lt;sup>9</sup>Control of established stands may require repeat applications.

<sup>&</sup>lt;sup>10</sup>Tank mix with glyphosate or triclopyr.

<sup>&</sup>lt;sup>11</sup>Tank mix with glyphosate.

#### **APPLICATION INSTRUCTIONS**

**Sharda Diuron 62.22% + Imazapyr 7.78% WDG** effectively controls many annual weeds when applied either pre-emergence or post-emergence, as well as many perennial weeds when applied post-emergence (refer to the **WEEDS CONTROLLED** section for a list of susceptible weeds).

Mix **Sharda Diuron 62.22%** + **Imazapyr 7.78% WDG** as described above and apply with properly calibrated equipment to uniformly deliver the desired spray volume to the treatment area. Maintain adequate agitation during application to keep **Sharda Diuron 62.22%** + **Imazapyr 7.78% WDG** suspended in spray mixture.

Apply **Sharda Diuron 62.22% + Imazapyr 7.78% WDG** at 7 - 19 lbs. (4.3 - 12 lbs. diuron a.i.; 0.5 - 1.5 lbs. imazapyr a.i.) of product per acre. Rates as low as 5 lbs. (3.1 lbs. diuron a.i.; 0.4 lbs. imazapyr a.i.) of **Sharda Diuron 62.22% + Imazapyr 7.78% WDG** per acre may be used, but must be tank mixed with another herbicide (refer to the **TANK MIXES** section below). For retreatment within the same growing season, use less than 7 lbs. (4.3 lbs. diuron a.i.; 0.5 lbs. imazapyr a.i.) **Sharda Diuron 62.22% + Imazapyr 7.78% WDG** per acre.

#### Restriction:

- DO NOT exceed 19 lbs./acre (12 lbs. diuron a.i.; 1.5 lbs. imazapyr a.i.) of Sharda Diuron 62.22% + Imazapyr 7.78% WDG per application in areas of high rainfall or dense vegetation.
- DO NOT exceed 13 lbs./acre (8 lbs. diuron a.i.; 1.0 imazapyr a.i.) of Sharda Diuron 62.22% + Imazapyr 7.78% WDG per application in all other areas.
- DO NOT apply more than a total of 19 lbs.(12 lbs. diuron a.i.; 1.5 lbs. imazapyr a.i.) Sharda Diuron 62.22% + Imazapyr 7.78% WDG per acre in a 12-month period.
- **DO NOT** make more than 2 applications per year when using reduced rate.
- **DO NOT** retreat in less than 90 days after first treatment.

The length of residual weed control achieved with **Sharda Diuron 62.22% + Imazapyr 7.78% WDG** may be significantly affected by rainfall amounts. To achieve the desired residual control with increasing rainfall amounts, higher rates of **Sharda Diuron 62.22% + Imazapyr 7.78% WDG** must be applied. As a general guideline the **Sharda Diuron 62.22% + Imazapyr 7.78% WDG** rates listed below are specified for different annual rainfall amounts. Actual use rates will vary depending upon the length of residual control desired, weed pressure and environmental conditions.

Average Annual Rainfall in Inches	Rate of Sharda Diuron 62.22% + Imazapyr 7.78% WDG per Acre	
Less than 15 inches	*7 - 10 pounds of product	
Between 15 and 35 inches	8 - 13 pounds of product	
Greater than 35 inches	13 - 19 pounds of product	
*F : 11   1   1   1   1   1   1   1   1		

\*For initial applications, apply **Sharda Diuron 62.22% + Imazapyr 7.78% WDG** at 5 - 6 lbs. per acre in combination with another herbicide (refer to the **TANK MIXES** section below).

## **Post-Emergence Applications**

Always use a spray adjuvant (refer to the **ADJUVANTS** section) in post-emergence applications. For optimum performance on hard-to-control perennial weeds, apply 100 gals. per acre or less in combination with 1 qt. per acre of methylated seed oil. For quicker burndown of target weeds, tank mix **Sharda Diuron 62.22% + Imazapyr 7.78% WDG** with products containing glyphosate or glufosinate ammonium (refer to the **TANK MIXES** section below).

## **Spot Treatments**

Sharda Diuron 62.22% + Imazapyr 7.78% WDG can be used in a bare ground situation to inhibit weed infringement or escapes. Make an initial or follow up treatment to spaces, including cracks and crevices in parking areas, runways, roadways, and other paved surfaces. To prepare the spray solution, thoroughly mix 0.5 - 1 lb. (0.3 - 0.6 lbs. diuron a.i.; 0.04 - 0.08 lbs. imazapyr a.i.) of Sharda Diuron 62.22% + Imazapyr 7.78% WDG plus an adjuvant in each gallon of water. DO NOT exceed 19 lbs. (12 lbs. diuron a.i.; 1.5 lbs. imazapyr a.i.) Sharda Diuron 62.22% + Imazapyr 7.78% WDG per acre in a 12-month period. For increased burndown, tank mix with products containing glyphosate, glufosinate-ammonium, or similar products (refer to the TANK MIXES section below).

#### **TANK MIXES**

**Sharda Diuron 62.22% + Imazapyr 7.78% WDG** may be tank-mixed with products that contain the active ingredients glyphosate, diuron, sulfometuron-methyl, triclopyr, glufosinate ammonium, MSMS, dicamba, pendimethalin, imazapic, or imazapyr. Tank-mixes with 2,4-D or products that contain 2,4-D, may reduce perennial weed control.

It is the pesticide user's responsibility to ensure that all products are registered for the intended use. Read and follow the applicable restrictions and limitations and directions for use on all product labels involved in tank mixing. Users must follow the most restrictive directions for use and precautionary statements of each product in the tank mixture.

## FOR CONTROL OF UNDESIRABLE WEEDS UNDER PAVED SURFACES

**Sharda Diuron 62.22% + Imazapyr 7.78% WDG** can be used under asphalt, pond liners and other paved areas, but ONLY in industrial sites or where the pavement has a suitable barrier along the perimeter that prevents encroachment of roots of desirable plants.

Sharda Diuron 62.22% + Imazapyr 7.78% WDG must only be used where the area to be treated has been prepared according to good construction practices. Before application of Sharda Diuron 62.22% + Imazapyr 7.78% WDG, rhizomes, stolons, tubers or other vegetative plant parts must be removed from the treatment site by scalping with a grader blade to a depth sufficient to insure their

complete removal.

IMPORTANT: Paving must follow Sharda Diuron 62.22% + Imazapyr 7.78% WDG applications as soon as possible.

#### **Restrictions:**

- DO NOT use under pavement on residential properties including driveways or parking lots.
- DO NOT use in recreational areas including under bike or jogging paths, golf cart paths, or tennis courts.
- **DO NOT** use where landscape plantings could be anticipated. Injury or death of desirable plants may result if this product is applied where roots are present or where they may extend into the treated area. **Note:** The roots of trees and shrubs may extend a considerable distance beyond the branch extremities, i.e., drip line.

## **APPLICATION DIRECTIONS FOR PAVED SURFACES**

Applications must be made to the soil surface only when final grade is established.

Apply **Sharda Diuron 62.22% + Imazapyr 7.78% WDG** in at least 100 gal. water per acre to ensure thorough and uniform wetting of the soil surface, including the shoulder areas. Prepare spray solution by thoroughly mixing **Sharda Diuron 62.22% + Imazapyr 7.78% WDG** into clean water in the spray tank and agitate solution to maintain product suspension.

If the soil is not moist before treatment, **Sharda Diuron 62.22% + Imazapyr 7.78% WDG** must be incorporated into the soil to a depth of 4" - 6" using a rototiller or disc. Rainfall or irrigation of 1" will also provide adequate incorporation.

#### **Restrictions:**

- DO NOT exceed 19 lbs./acre (12 lbs. diuron a.i.; 1.5 lbs. imazapyr a.i.) of Sharda Diuron 62.22% + Imazapyr 7.78% WDG per application in areas of high rainfall or dense vegetation.
- DO NOT exceed 13 lbs./acre (8 lbs. diuron a.i.; 1.0 imazapyr a.i.) of Sharda Diuron 62.22% + Imazapyr 7.78% WDG per application in all other areas.
- DO NOT apply more than a total of 19 lbs. (12 lbs. diuron a.i.; 1.5 lbs. imazapyr a.i.) Sharda Diuron 62.22% + Imazapyr 7.78% WDG per acre in a 12-month period
- **DO NOT** make more than 2 applications per year when using reduced rate.
- **DO NOT** retreat in less than 90 days after first treatment.
- DO NOT apply where the chemical may contact the roots of desirable trees or other plants.
- DO NOT move soil following Sharda Diuron 62.22% + Imazapyr 7.78% WDG application.
- DO NOT allow treated soil to wash or move from treated areas into untreated areas.

## STORAGE AND DISPOSAL

**DO NOT** contaminate water, food or feed by storage or disposal.

PESTICIDE STORAGE: DO NOT store below 10°F.

**PESTICIDE DISPOSAL:** Wastes resulting from the use of this product may be disposed of on site or at an approved waste disposal facility. If these wastes cannot be disposed of according to label instructions, contact your State Pesticide or Environmental Control Agency or the Hazardous Waste representative at the nearest EPA Regional Office for guidance.

#### **CONTAINER HANDLING:**

[Non-Refillable Plastic and Metal Containers (Capacity Equal to or Less Than 50 Pounds): Non-refillable container. DO NOT reuse or refill this container. Triple rinse container (or equivalent) promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank. Fill the container ¼ full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times. Then, for Plastic Containers, offer for recycling if available or puncture and dispose of in a sanitary landfill or by incineration, or by other procedures approved by State and local authorities. For Metal Containers, offer for recycling if available or reconditioning if appropriate, or puncture and dispose of in a sanitary landfill, or by other procedures approved by State and local authorities.]

[Non-Refillable Plastic and Metal Containers (Capacity Greater Than 50 Pounds): Non-refillable container. DO NOT reuse or refill this container. Triple rinse container (or equivalent) promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank. Fill the container ¼ full with water. Replace and tighten closures. Tip container on its side and roll it back and forth, ensuring at least one complete revolution, for 30 seconds. Stand the container on its end and tip it back and forth several times. Turn the container over onto its other end and tip it back and forth several times. Empty the rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Repeat this procedure two more times. Then, for Plastic Containers, offer for recycling if available or puncture and dispose of in a sanitary landfill or by incineration, or by other procedures approved by State and local authorities. For Metal Containers, offer for recycling if available or reconditioning if appropriate, or puncture and dispose of in a sanitary landfill, or by other procedures approved by State and local authorities.]

[Nonrefillable container: DO NOT reuse or refill this container. Completely empty bag into application equipment. Then offer for recycling if available or dispose of empty bag in a sanitary landfill or by incineration, or, if allowed by state and local authorities, by burning. If burned, stay out of smoke.]

[Refillable Fiber Drums With Liners: Refillable container (fiber drum only). Refilling Fiber Drum: Refill this fiber drum with this herbicide only. DO NOT reuse this fiber drum for any other purpose. Cleaning before refilling is the responsibility of the refiller. Completely empty liner by shaking and tapping sides and bottom to loosen clinging particles. Empty residue into application or manufacturing equipment. Disposing of Fiber Drum and/or Liner: DO NOT reuse this fiber drum for any other purpose other than refilling (see preceding). Cleaning the container (liner and/or fiber drum) before final disposal is the responsibility of the person disposing of the container. Offer the liner for recycling if available or dispose of liner in a sanitary landfill, or by incineration. DO NOT burn, unless allowed by State and local ordinances. If drum is contaminated and cannot be reused, dispose of it in the manner required for its liner. To clean the fiber drum before final disposal, completely empty the fiber drum by shaking and tapping sides and bottom to loosen clinging particles. Empty residue into application or manufacturing equipment. Then offer the fiber drum for recycling if available or dispose of in a sanitary landfill or by incineration, or by other procedures approved by State and local authorities.]

[All Other Refillable Containers: Refillable container. Refilling Container: Refill this container with this herbicide only. DO NOT reuse this container for any other purpose. Cleaning before refilling is the responsibility of the refiller. Prior to refilling, inspect carefully for damage including cracks, punctures, abrasions, worn out threads and closure devices. Check for leaks after refilling and before transporting. Disposing of Container: DO NOT reuse this container for any other purpose other than refilling (see preceding). Cleaning the container before final disposal is the responsibility of the person disposing of the container. To clean the container before final disposal, use the following pressure rinsing procedure. Insert a lance fitted with a suitable tank cleaning nozzle into the container and ensure that the water spray thoroughly covers the top, bottom, and all sides inside the container. The nozzle manufacturer generally provides instructions for the appropriate spray pressure, spray duration and/or spray volume. If the manufacturer's instructions are not available, pressure rinse the container for at least 60 seconds using a minimum pressure of 30 PSI with a minimum rinse volume of 10% of the container volume. Drain, pour or pump rinsate into application equipment or rinsate collection system. Repeat this pressure rinsing procedure two more times. Then, for Plastic Containers, offer for recycling if available or puncture and dispose of in a sanitary landfill or by incineration, or by other procedures approved by State and local authorities. For Metal Containers, offer for recycling if available or reconditioning if appropriate, or puncture and dispose of in a sanitary landfill, or by other procedures approved by State and local authorities.]

CONTAINER IS NOT SAFE FOR FOOD, FEED OR DRINKING WATER!

## **CONDITIONS OF SALE AND LIMITATION OF WARRANTY AND LIABILITY**

**NOTICE:** Read the entire Directions for Use and Conditions of Sale and Limitation of Warranty and Liability before buying or using this product. If the terms are not acceptable, return the product at once, unopened, and the purchase price will be refunded.

The Directions for Use of this product must be followed carefully. It is impossible to eliminate all risks inherently associated with the use of this product. Ineffectiveness or other unintended consequences may result because of such factors as manner of use or application, weather, presence of other materials or other influencing factors in the use of the product, which are beyond the control of Sharda USA LLC or Seller. To the extent consistent with applicable law, all such risks shall be assumed by Buyer and User, and Buyer and User agree to hold Sharda USA LLC and Seller harmless for any claims relating to such factors.

Sharda USA LLC warrants that this product conforms to the chemical description on the label and is reasonably fit for the purposes stated in the Directions for Use, subject to the inherent risks referred to above, when used in accordance with directions under normal use conditions. This warranty does not extend to the use of this product contrary to label instructions, or under conditions not

Sharda Diuron 62.22% + Imazapyr 7.78% WDG ABN: Emade Initial Draft Label

Page 12 of 12

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