

# **NON-CROP SITES -SPECIFIC WEED PROBLEMS CONTROL OF CANADA THISTLE IN CROWN VETCH**

## General Information

### PRODUCT INFORMATION

Tide Hexar 2SL is a water-dispersible liquid that is mixed in water and applied as a spray for weed control in certain crops, Christmas trees, forestry site preparation and release areas, and industrial areas. It may also be applied undiluted as a basal soil treatment for brush control in reforestation areas, rangeland, pastures and noncrop areas or by stem injection for brush control.

Tide Hexar 2SL is an effective general herbicide providing both contact and residual control of many annual, biennial and perennial weeds and woody plants.

Tide Hexar 2SL is noncorrosive to equipment.

Care must be exercised when applying Tide Hexar 2SL near desirable trees or shrubs as they can absorb Tide Hexar 2SL through roots extending into treated areas.

This product may be applied on agricultural and non-agricultural sites that contain areas of temporary surface water caused by collection of water between planting beds, in equipment ruts, or in other depressions created by management activities. It is permissible to treat intermittent drainage, intermittently flooded low lying sites, seasonally dry flood plains and transitional areas between upland and lowland sites when no water is present. It is also permissible to treat marshes, swamps and bogs after water has receded, as well as seasonally dry flood deltas. DO NOT make applications to natural or man-made bodies of water such as lakes, reservoirs, ponds, streams and canals.

### ENVIRONMENTAL CONDITIONS AND BIOLOGICAL ACTIVITY

Tide Hexar 2SL is absorbed through the roots and foliage. Moisture is required to activate Tide Hexar 2SL in the soil. Best results are obtained when the soil is moist at the time of application and  $\frac{1}{4}$  -  $\frac{1}{2}$  inches of rainfall occurs within 2 weeks after application.

For best results, apply Tide Hexar 2SL preemergence or postemergence when weeds are less than 2 inches in height or diameter. Foliar activity is most effective under conditions of high temperature (above 80°F), high humidity, and good soil moisture. Foliar activity may be reduced when vegetation is dormant, semi-dormant, or under stress.

On herbaceous plants, symptoms usually appear within 2 weeks after application under warm, humid conditions, while 4-6 weeks may be required when weather is cool or dry, or when plants are under stress. If rainfall after application is inadequate to activate Tide Hexar 2SL in the soil, plants may recover from contact effects and continue to grow.

On woody plants, symptoms usually appear within 3-6 weeks after sufficient rainfall has carried the herbicide into the root zone during periods of active growth. Defoliation and refoliation may occur, but susceptible plants are killed.

The degree and duration of control will depend on the following:

- Use rate
- Weed spectrum and size at time of application
- Environmental conditions at and following treatment

Where a rate range is shown, use the higher levels of the dosage range on hard-to-control species, fine-textured soils, or soils containing greater than 5% organic matter or carbon. Use the lower levels of the dosage range on coarse-textured soils and/or on soils low in organic matter. Refer to specific uses for rate ranges.

#### APPLICATION INFORMATION

Tide Hexar 2SL may be applied by ground equipment and where permitted, aerial equipment. Use rates, minimum spray gallonage, and other application information are described for various uses.

Dispose of the equipment washwater by applying it to a use-site listed on this label or in accordance with directions given in the STORAGE AND DISPOSAL section of

this label.

Before spraying, calibrate equipment to determine the quantity of water necessary to uniformly and thoroughly cover the vegetation and soil in a measured area to be treated.

#### INVASIVE SPECIES MANAGEMENT

This product may be considered for use on public, private, and tribal lands to treat certain weed species infestations that have been determined to be invasive, consistent with the Federal Interagency Committee for the Management of Noxious and Exotic Weeds (FICMNEW) National Early Detection and Rapid Response (EDRR) System for invasive plants. Effective EDRR systems address invasions by eradicating the invader where possible, and controlling them when the invasive species is too established to be feasibly eradicated. Once an EDRR assessment has been completed and action is advised, a Rapid Response needs to be taken to quickly contain, deny reproduction, and if possible eliminate the invader. Consult your appropriate state extension service, forest service, or regional multidisciplinary invasive species management coordination team to determine the appropriate Rapid Response provisions and allowed treatments in your area.

#### MODE OF ACTION

Hexazinone is a Group 5 herbicide based on the mode of action classification system of the Weed Science Society of America and a C1 photosynthesis photosystem II inhibitor as classified by the Herbicide Resistance Action Committee (HRAC).

#### RESISTANCE

When herbicides that affect the same biological site of action are used repeatedly over several years to control the same weed species in the same field, naturally-occurring resistant biotypes may survive a correctly applied herbicide treatment, propagate, and become dominant in that field.

Adequate control of these resistant weed biotypes cannot be expected. If weed control is unsatisfactory, it may be necessary to retreat the problem area using a product affecting a different site of action.

To better manage herbicide resistance through delaying the proliferation and

possible dominance of herbicide resistant weed biotypes, it may be necessary to change cultural practices within and between crop seasons such as using a combination of tillage, retreatment, tank-mix partners and/or sequential herbicide applications that have a different site of action. Weed escapes that are allowed to go to seed will promote the spread of resistant biotypes.

It is advisable to keep accurate records of pesticides applied to individual fields to help obtain information on the spread and dispersal of resistant biotypes. Consult your agricultural dealer, consultant, applicator, and/or appropriate state agricultural extension service representative for specific alternative cultural practices or herbicide instructions available in your area.

## INTEGRATED PEST MANAGEMENT

This product may be used as a part of an Integrated Pest Management (IPM) program that can include biological, cultural, and genetic practices aimed at preventing economic pest damage. IPM principles and practices include field scouting or other detection methods, correct target pest identification, population monitoring, and treating when target pest populations reach locally determined action thresholds. Consult your state cooperative extension service, professional consultants or other qualified authorities to determine appropriate action treatment threshold levels for treating specific pest/crop systems in your area.

## CHEMIGATION

Apply this product through irrigation equipment only to crops and diseases for which the chemigation use is specified. Apply this product only through center pivot or linear-move sprinkler irrigation systems. Do not apply Tide Hexar 2SL through any other type of irrigation system. Crop injury, lack of effectiveness, or illegal pesticide residues in the crop can result from non-uniform distribution of treated water. Therefore, to ensure that the mixture is applied evenly at the labeled rate, use sufficient water, apply the mixture for the proper length of time and ensure sprinkler produces a uniform water pattern. Do not permit run-off during chemigation. If you have questions about calibration, you should contact State Extension Service specialists, equipment manufacturers or other experts.

Do not connect an irrigation system (including greenhouse systems) used for pesticide application to a public water system unless the pesticide label-prescribed safety devices for public water systems are in place. A person knowledgeable of the

chemigation system and responsible for its operation or under the; supervision of the responsible person, must shut the system down and make necessary adjustments should the need arise.

The system must contain a functional check valve, vacuum relief valve, and low pressure drain appropriately located on the irrigation pipeline to prevent water source contamination from backflow.

The pesticide injection pipeline must contain a functional, automatic, quick-closing check valve to prevent flow of fluid back toward the injection pump.

The pesticide injection pipeline must also contain a functional, normally closed, solenoid-operated valve located on the intake side of the injection pump and connected to the system interlock to prevent fluid from being withdrawn from the supply tank when the irrigation system is either automatically or manually shut down.

The system must contain functional interlocking controls to automatically shut off the pesticide injection pump when the water pump motor stops.

The irrigation line or water pump must include a functional pressure switch which will stop the water pump motor when the water pressure decreases to the point where pesticide distribution is adversely affected.

Systems must use a metering pump, such as a positive displacement injection pump (e.g., diaphragm pump) effectively designed and constructed of materials that are compatible with pesticides and capable of being fitted with a system interlock.

Maintain continuous agitation in mix tank during mixing and application to assure a uniform suspension. Allow sufficient time for pesticide to be flushed through all lines and all nozzles before turning off irrigation water. Pesticide may be applied continuously for the duration of the water application.

## POSTING OF AREAS TO BE TREATED

Posting of areas to be chemigated is required when 1) any part of a treated area is within 300 feet of sensitive areas such as residential areas, labor camps, businesses, daycare centers, hospitals, in-patient clinics, nursing homes, or any public areas such as schools, parks, playgrounds, or other public facilities not

including public roads, or 2) when the chemigated area is open to the public such as golf courses or retail greenhouses.

Posting must conform to all the following requirements:

- Treated areas shall be posted with signs at all usual points of entry and along likely routes of approach from the listed sensitive areas. When there are no usual points of entry, signs must be posted in the corners of the treated areas and in any other location affording maximum visibility to sensitive areas.
- The printed side of the sign must face away from the treated area towards the sensitive area. The signs shall be printed in English.
- Signs must be posted prior to application and must remain posted until foliage has dried and soil surface water has disappeared. Signs may remain in place indefinitely as long as they are composed of materials to prevent deterioration and maintain legibility for the duration of the posting period.
- All words shall consist of letters at least 2 ½ inches tall, and all letters and the symbol shall be a color which sharply contrasts with their immediate background. At the top of the sign shall be the words "KEEP OUT", followed by an octagonal stop sign symbol at least 8 inches in diameter containing the word "STOP". Below the symbol shall be the words "PESTICIDE IN IRRIGATION WATER".
- Posting required for chemigation does not replace other posting and reentry requirements for farm worker safety.

Limitations, Restrictions, and Exceptions

NON-AGRICULTURAL USES

APPLICATION INFORMATION

Tide Hexar 2SL is labeled for general weed and brush control as follows: uncultivated nonagricultural areas (such as, airports, highway, railroad and utility right-of ways, sewage disposal areas); uncultivated agricultural areas (non-crop producing, which includes: farmyards, fuel storage areas, fence rows, barrier strips); industrial sites (outdoor, such as, lumberyards, pipeline and tank farms).

NON-CROP SITES

Tide Hexar 2SL is labeled for control of many annual, biennial, and perennial weeds

in non-crop, industrial sites.

#### APPLICATION INFORMATION

Apply Tide Hexar 2SL as a preemergence or postemergence spray when weeds are actively germinating or growing.

#### SPECIFIC WEED PROBLEMS

Control of Canada Thistle in Crown Vetch – Tide Hexar 2SL is labeled for control of Canada thistle in established stands of crown vetch on noncrop sites. Make a single application of 3-5 pints of Tide Hexar 2SL from late spring through mid-summer, when thistle is actively growing prior to flowering. Do not use a surfactant. Some discoloration of the crown vetch foliage may occur after application.

#### SPRAY EQUIPMENT

Apply Tide Hexar 2SL uniformly over the desired area using ground equipment or helicopter. Do not apply more than 3 gallons per acre of Tide Hexar 2SL by air.

Use enough water for thorough coverage (for ground application, a minimum of 25 gallons per acre). Higher application volumes may be needed to obtain uniform application with handgun equipment. For aerial applications (helicopter only) this is usually a minimum of 5 gallons per acre. Higher volumes of water may be needed when water temperatures are cold or the higher rates of Tide Hexar 2SL are used.

#### USE PRECAUTIONS - ALL NON-CROP SITES

- For bermudagrass that may be grown in the states of ID, OR, UT, or WA, determine the suitability of using Tide Hexar 2SL by treating a small area at a labeled application rate prior to treating larger areas. The smaller treated area must be observed for any signs of herbicidal injury during 60 days of normal growing conditions to determine if the treatment is safe to bermudagrass. If this evaluation is not completed prior to use, the user assumes the responsibility for any plant damage or other liability resulting from the use of Tide Hexar 2SL on bermudagrass.
- Injury to or loss of desirable trees or other plants may result if Tide Hexar 2SL is applied or if equipment is drained or flushed on or near desirable trees or other plants, on areas where their roots may extend, or in locations where the chemical may be washed or moved into contact with their roots.

- Application spray drift may injure desirable plants.
- Poor weed and brush control may result from the following:
  - Use on poorly drained sites
  - Applications made when the soil is saturated with water and rain is imminent within 24 hours.
  - Applications to soils high in organic matter (greater than 5%)
  - Following mechanical cutting or clearing, allow stumps and injured trees sufficient time to adequately resprout before applying Tide Hexar 2SL.
  - Weed and brush control results from spring applications depend on sufficient moisture to activate Tide Hexar 2SL.
  - Some discoloration of the bermudagrass or bahiagrass may occur after application.
  - Injury may result when desirable grasses are under stress from drought, insects, disease, cold temperature, or poor fertility.
  - Severe turfgrass injury may occur if applications are made on gravelly or rocky soils, thinly covered subsoils, or soils with less than 1% organic matter.

#### USE RESTRICTIONS - ALL NON-CROP SITES

- Do not use Tide Hexar 2SL on frozen soils.
- Leave treated soil undisturbed to reduce the potential for Tide Hexar 2SL movement by soil erosion due to wind or water.
- Do not use Tide Hexar 2SL on lawns, driveways, tennis courts, or other residential or recreational areas.
- Livestock may be grazed immediately following a broadcast application of Tide Hexar 2SL at rates of 4.5 pints per acre or less, and treated vegetation may be cut, dried and fed after 38 days.
- Do not cut treated vegetation for feed, or graze livestock on treated areas for 60

days following application of Tide Hexar 2SL at broadcast rates greater than 4.5 pints and up to 3 gallons per acre.

- For Tide Hexar 2SL rates above 3 gallons per acre, do not cut treated vegetation for forage or hay nor graze domestic animals for 1 year following application.
- There are no grazing or haying restrictions for the directed basal-soil applications of Tide Hexar 2SL.
- Use Tide Hexar 2SL only in stands of bermudagrass and bahiagrass turfgrasses established for at least one year. Do not treat newly sprigged or sodded areas.

#### Method

[Broadcast/Foliar Air](#)

[Broadcast/Foliar Ground](#)

#### Rates

[field\\_rates 0](#)

[field\\_rates 1](#)

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#### Restricted Entry Interval

48 hours

#### Timings

[From late spring through mid-summer, when thistle is actively growing prior to flowering.](#)