

### UNITED STATES ENVIRONMENTAL PROTECTION AGENCY WASHINGTON, D.C. 20460

FEB 1 7 2009

OFFICE OF PREVENTION, PESTICIDES AND TOXIC SUBSTANCES

Dr. Craig Kleppe BASF Corporation 26 Davis Drive Research Triangle Park, NC 27709-3528

Subject:

Tower Herbicide

EPA Registration No. 7969-239

Amended main labeling submitted February 6, 2009

Dear Dr. Kleppe:

The labeling referred to above, submitted in connection with registration under the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA), as amended, is acceptable, provided you make the following changes before you release the product for shipment:

- Make all of the changes specified in the attached document "Summary of Comments on 007969-00239.20081031b.NVA2008-04-275-0031.epacomments.pdf".

This amended labeling supersedes all previously accepted labeling with the exception of supplemental labeling. A stamped copy of labeling is enclosed for your records.

Submit one copy of final printed labeling before you release the product for shipment. Please include an electronic label in pdf text format of the final printed labeling with your submission. If you have any questions about this letter, you may contact Tobi Colvin-Snyder at 703-305-7801 or Colvin-Snyder.Tobi@epa.gov.

Sincerely,

Jim Tompkins

Product Manager 25

Herbicide Branch

Registration Division (7505P)

ACCEPTED
with COMMENTS
In EPA Letter Dated

FEB 17 2009

Under the Federal Insecticade, Fundicide, and Rodenticide Act as amended, for the pesticide registered under EPA Reg. No.



For Use as a Preemergence Weed Control Herbicide in Ornamental Production, Landscape or Grounds Maintenance, and Other Specified Noncrop Areas.

#### Active Ingredient\*:

dimethenamid-P: (S)-2-chloro-N-[(1-methyl-2-methoxy)ethyl]-N-(2;4-dimethyl-thien-3-yl)-acetamide

ି63.9%

Other Ingredients\*\*:

36.1% 100.0%

\*Contains 6.0 pounds of active ingredient per gallon.

\*\*Contains petroleum distillates, xylene, or xylene-range aromatic solvent...

EPA Reg. No. 7969-239

EPA Est. No.

# KEEP OUT OF REACH OF CHILDREN WARNING/AVISO

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

See inside for complete First Aid, Precautionary Statements, Directions For Use, Conditions of Sale and Warranty, and state-specific and/or use site restrictions.

In case of an emergency endangering life or property involving this product, call day or night 1-800-832-HELP (4357).

**Net Contents:** 

BASF
The Chemical Company

	FIRST AID
If in eyes	<ul> <li>Hold eyes open and rinse slowly and gently with water for 15 to 20 minutes.</li> <li>Remove contact lenses, if present, after the first 5 minutes; then continue rinsing eyes.</li> <li>Call a poison control center for treatment advice.</li> </ul>
if swallowed	<ul> <li>Call a poison control center or doctor immediately for treatment advice.</li> <li>DO NOT induce vomiting unless told to do so by a poison control center or doctor.</li> <li>DO NOT give any liquid to the person.</li> <li>DO NOT give anything by mouth to an unconscious person.</li> </ul>
lf on skin or clothing	<ul> <li>Take off contaminated clothing.</li> <li>Rinse skin immediately with plenty of water for 15 to 20 minutes.</li> <li>Call a poison control center or doctor for treatment advice.</li> </ul>
lf inhaled	<ul> <li>Move person to fresh air.</li> <li>If person is not breathing, call 911 or an ambulance; then give artificial respiration, preferably by mouth to mouth, if possible.</li> <li>Call a poison control center or doctor for further treatment advice.</li> </ul>
	HOT LINE NUMBER

Have the product container or label with you when calling a poison control center or doctor or going for treatment. You may also contact BASF Corporation for emergency medical treatment information: 1-800-832-HELP (4357).

NOTE TO PHYSICIAN: Contains petroleum distillates. Vomiting may cause aspiration pneumonia.

#### PRECAUTIONARY STATEMENTS

#### **Hazards to Humans and Domestic Animals**

WARNING. Causes substantial but temporary eye injury.

Harmful if inhaled, swallowed, or absorbed through the skin,

Avoid contact with skin, eyes or elething. Avoid breathing
spray mist. Prolonged or frequently repeated skin contact
may cause allergic reactions in some individuals. Wash theroughly with soap and water after handling and before eating,
drinking, chewing gum, or using tobacco. Remove and wash
contaminated clothing before reuse. Wear protective eyewear (such as face shield) and chemical resistant gloves.

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#### Personal Protective Equipment (PPE)

Some materials that are chemically resistant to this product are listed below. For more options, refer to **Category F** on an EPA chemical-resistance category selection chart.

#### Applicators and other handlers must wear:

- · Long-sleeved shirt and long pants
- Chemical-resistant gloves, such as barrier laminate, butyl rubber ≥ 14 mils, nitrile rubber ≥ 14 mils, neoprene rubber ≥ 14 mils or viton ≥ 14 mils
- · Shoes plus socks
- · Protective eyewear

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

#### **Engineering Controls Statement**

When handlers use closed systems or enclosed cabs in a manner that meets the requirements listed in the Worker Protection Standard (WPS) for agricultural pesticides [40 CFR 170.240(d)(4-6)], the handler PPE requirements may be reduced or modified as specified in the WPS.

**IMPORTANT:** When reduced PPE is worn because a closed system is being used, handlers must be provided all PPE specified above for **applicators and other handlers** and have such PPE immediately for use in an emergency, such as a spill or equipment breakdown.

#### **User Safety Recommendations**

#### Users should:

- Wash hands before eating, drinking, chewing gum, using tobacco, or using the toilet.
- 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**

For terrestrial uses, **DO NOT** apply directly to water, areas where surface water is present, or intertidal areas below the mean high water mark. **DO NOT** contaminate water when disposing of equipment washwaters or rinsate.

Dimethenamid-P has properties that may result in groundwater contamination. Application in areas where soils are permeable or coarse and groundwater is near the surface could result in groundwater contamination. Dimethenamid-P has properties that may result in surfacewater contamination via dissolved runoff and runoff erosion. Practices should be followed to minimize the potential for dissolved runoff and/or runoff erosion.

**Point-source contamination.** To prevent point-source contamination, **DO NOT** mix or load this or any other pesticide product within 50 feet of wells (including abandoned wells and drainage wells), sinkholes, perennial or intermittent streams and rivers, and natural or impounded lakes and reservoirs. This setback does not apply to properly capped or plugged abandoned wells and does not apply to impervious pad or dike mixing/loading areas as described below.

Mixing, loading, rinsing, or washing operations performed within 50 feet of a well are allowed only when conducted on an impervious pad constructed to withstand the weight of the heaviest load that may be on or move across the pad. The pad must be self-contained to prevent surface water flow over or from the pad. The pad capacity must be maintained at 110% that of the largest pesticide container or application equipment used on the pad and have sufficient capacity to contain all product spills, equipment or container leaks, equipment washwaters, and rainwater that may fall on the pad. The containment capacity does not apply to vehicles delivering pesticide shipments to the mixing/loading site. States may have in effect additional requirements regarding wellhead setbacks and operational containment. Care must be taken when using this product to prevent: 1) back siphoning into wells; 2) spills; or 3) improper disposal of excess pesticide, spray mixes, or rinsates.

Check valves or antisiphoning devices must be used on all mixing equipment.

Movement Dissolved in Runoff or Through Soil DO NOT apply under conditions which favor runoff. DO NOT apply to impervious substrates such as paved or highly compacted surfaces or frozen soils. Groundwater contamination may occur in areas where soils are permeable or coarse and groundwater is near the surface. To minimize the possibility of groundwater contamination, carefully follow application rates as affected by soil type in the General Information section of this label.

DO NOT apply if all three criteria exist:

- 1. Coarse soils classified as sand (does not include loamy sand or sandy loam)
- 2. Less than 3% organic matter (as determined by soil tests, if not known)
- 3. Where depth to ground water is 30 feet or less

#### Movement by Water Erosion of Treated Soil

**DO NOT** apply or incorporate this product by flood or furrow irrigation. Ensure treated areas have received at least 0.5 inch of rainfall before using tailwater for subsequent irrigation of other fields.

#### **Endangered Species Concerns**

The use of any pesticide in a manner that may kill or otherwise harm an endangered species or adversely modify their habitat is a violation of federal law.

#### **Endangered Plant Species**

To avoid adverse effects on endangered plant species, applicators in ornamentals production must comply with the following mitigation measures where and when endangered plant species are known to occur in proximity of the application site:

#### **Ground Applications**

Use low-pressure nozzles according to the manufacturer's specifications that produce only medium-to-coarse or very coarse droplets **AND** leave a 35-foot untreated buffer between treatment area and known endangered plant populations.

To determine whether your county has endangered plant species, consult <a href="http://www.epa.gov/espp/usa-map.htm">http://www.epa.gov/espp/usa-map.htm</a>. Endangered Species Bulletins may also be obtained from county extension offices or state pesticide agencies. If a bulletin is not available for your specific area, check with the appropriate local state agency to determine if known populations of endangered plants occur in the area.

#### **DIRECTIONS FOR USE**

It is a violation of federal law to use this product in a manner inconsistent with its labeling. This labeling must be in the possession of the user at time of herbicide application.

**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.

Unless otherwise directed in supplemental labeling, all applicable directions, restrictions, precautions and **Conditions of Sale and Warranty** are to be followed.

BASF Corporation does not recommend or authorize the use of this product in manufacturing, processing or preparing custom blends with other products for application to ornamentals.

**DO NOT** apply **Tower™ herbicide** through any type of irrigation system.

**DO NOT** apply as a herbigation or chemigation treatment.

**DO NOT** apply **Tower** in greenhouses, polyhouses or other fully enclosed greenhouse-type structures.

Not for use for commercial seed production.

**DO NOT** apply aerially or as an aerial treatment.

**Tower** is for use only by certified applicators or persons under their direct supervision.

FAILURE TO FOLLOW THE DIRECTIONS FOR USE AND PRECAUTIONS ON THIS LABEL MAY RESULT IN POOR WEED CONTROL OR CROP INJURY.



#### **Agricultural Use Requirements**

Use this product only in accordance with its labeling and with the Worker Protection Standard, 40 CFR part 170. This standard contains requirements for the protection of agricultural workers on farms, forests, nurseries, and greenhouses, and handlers of agricultural pesticides. It contains requirements for training, decontamination, notification, and emergency assistance. It also contains specific instructions and exceptions pertaining to the statements on this label about personal protective equipment (PPE) and restricted-entry interval. The requirements in this box only apply to uses of this product that are covered by the Worker Protection Standard.

**DO NOT** enter or allow worker entry into treated areas during the restricted-entry interval (REI) of **12 hours**.

**Exception:** If the product is soil injected or soil incorporated, the Worker Protection Standard, under certain circumstances, allows workers to enter the treated area if there will be no contact with anything that has been treated.

PPE required for early entry to treated areas that is permitted under the Worker Protection Standard and that involves contact with anything that has been treated, such as plants, soil, or water, is:

- Coveralls
- Chemical-resistant gloves such as barrier laminate, butyl rubber ≥ 14 mils, nitrile rubber ≥ 14 mils, neoprene rubber ≥ 14 mils, polyvinyl chloride ≥ 14 mils, or viton ≥ 14 mils
- Shoes plus socks
- Protective eyewear

#### Nonagricultural Use Requirements

The requirements in this box apply to uses of this product that are NOT within the scope of the Worker Protection Standard for agricultural pesticides (40 CFR Part 170). The WPS applies when this product is used to produce agricultural plants on farms, forests, nurseries, or greenhouses.

**DO NOT** enter treated areas without protective clothing until sprays have dried.

#### STORAGE AND DISPOSAL

**DO NOT** contaminate water, food, or feed by storage or disposal. Open dumping is prohibited.

**Pesticide Storage. DO NOT** use or store near heat or open flame. Store in original container in a well-ventilated area separately from fertilizer, feed, or foodstuffs and away from other pesticides. Avoid cross-contamination with other pesticides. Groundwater contamination may be reduced by diking and flooring of permanent liquid bulk storage sites with an impermeable material.

**Pesticide Disposal.** Wastes resulting from this product may be disposed of on-site or at an approved waste disposal

facility. Improper disposal of excess pesticide, spray mix, or rinsate is a violation of federal law. If these wastes cannot be disposed of according to label instructions, contact the state agency responsible for pesticide regulation or the Hazardous Waste representative at the nearest EPA Regional Office for guidance.

#### **CONTAINER DISPOSAL**

Nonrefillable Container. DO NOT reuse or refill this container. Triple rinse or pressure rinse container (or equivalent) promptly after emptying; then offer for recycling, if available, or reconditioning, if appropriate, or puncture and dispose of in a sanitary landfill, or by incineration, or by other procedures approved by state and local authorities.

Triple rinse containers small enough to shake (capacity ≤ 5 gallons) as follows: Empty the remaining contents into application equipment or a mix tank and drain for 10 seconds after the flow begins to drip. Fill the container 1/4 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.

Triple rinse containers too large to shake (capacity > 5 gallons) as follows: Empty the remaining contents into application equipment or a mix tank. Fill the container 1/4 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.

Pressure rinse as follows: Empty the remaining contents into application equipment or mix tank and continue to drain for 10 seconds after the flow begins to drip. Hold container upside down over application equipment or mix tank, or collect rinsate for later use or disposal. Insert pressure rinsing nozzle in the side of the container and rinse at about 40 PSI for at least 30 seconds. Drain for 10 seconds after the flow begins to drip.

#### In Case of Emergency

In case of large-scale spillage regarding this product, call: CHEMTREC 1-800-424-9300

BASF Corporation 1-800-832-HELP (4357)

In case of medical emergency regarding this product, call:

- Your local doctor for immediate treatment
- Your local poison control center (hospital)
- BASF Corporation 1-800-832-HELP (4357)

Steps to be taken in case material is released or spilled: Dike and contain the spill with inert material (sand, earth, etc.) and transfer liquid and solid diking material to separate containers for disposal. Remove contaminated clothing and wash affected skin areas with soap and water. Wash clothing before reuse. Keep the spill out of all sewers and open bodies of water.

Observe all cautions and limitations in this label and the labels of products used in combination with **Tower™ herbicide**. The use of **Tower** not consistent with this label can result in injury to crops, animals, or persons. Keep containers closed to avoid spills and contamination.

#### **GENERAL INFORMATION**

#### **Mode of Action**

**Tower** is a root-and-shoot growth inhibitor that controls susceptible germinating seedlings before or soon after they emerge from the soil.

#### **Use Sites**

**Tower** may be applied for preemergence control of certain annual grasses, annual broadleaf weeds and sedges as they germinate in:

- Field, or liner, or container nurseries of commercial ornamental production. Applications can be made, but are not limited to, ornamental plant species listed on this label such as trees, shrubs, ground covers, perennials, ornamental grasses and bedding plants. Examples of other sites include: conifer and hardwood seedling liner nurseries or tree plantations and the nonproduction areas in commercial nurseries such as storage areas, vegetation filter strips, windbreaks, shelterbelts, cart paths, and graveled areas.
- Landscaped ornamental areas in and around residential and commercial establishments, multifamily dwellings, military and other institutions, university or college campuses, parks, airports, roadsides, schools, picnic grounds, athletic fields, houses of worship, cemeteries, golf courses, prairie grass areas, and common areas in residential developments.
- The following specified noncrop areas: parking lots, driveways and roadsides, highway rights-of-way, alleyways, bike and jogging paths, vacant lots, buildings, stone gardens and gravel yards, around statuary or monuments, utility substations, markers/borders and fence lines and mulch beds. It may be used under asphalt or concrete treatments as part of a site-preparation program.

## Not for use on any improved or unimproved maintained turfgrass(es) or lawn(s).

**Tower** may be applied as a soft-residual bareground treatment in the use sites described above.

## Tower will not control emerged and established weeds.

A **Tower** treatment may be followed by any registered herbicide to control weeds not listed on the **Tower** label.

The efficacy of **Tower** will improve if application is followed by 0.33 to 0.67 inch of rainfall or its equivalent in sprinkler irrigation. If **Tower** is not activated by rainfall or irrigation within 30 days, erratic weed control may result.

If weeds should germinate prior to activation of the herbicide, shallow cultivate to destroy existing weeds or, where practical, remove by hand. When cultivating for any reason, it should be shallow.

Applied according to label directions and under normal growing conditions, **Tower** or **Tower** tank mix combinations will not cause ornamental plant injury. Overapplication can result in ornamental plant-stand loss, ornamental plant injury, or soil residues. Uneven application can decrease weed control or cause ornamental 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 **Tower**.

#### **APPLICATION INFORMATION**

#### **Application Mixing Instructions**

**General Tank Mixing Information. Tower** may be tank mixed with one or more registered herbicide products according to the specific tank mixing instructions in this label and respective product labels, provided that the product labels **DO NOT** prohibit such mixing. Follow the most restrictive label use directions and limitations for all products used.

#### **Compatibility Test for Mix Components**

Before mixing components, always perform a compatibility jar test.

- For 20 gallons per acre spray volume, use 3.3 cups (800 ml) of water. For other spray volumes, adjust rates accordingly. Only use water from the intended source at the source temperature.
- Add components in the sequence indicated in the Mixing Order for Ground-driven and Backpack Sprayers section using 2 teaspoons for each pound or 1 teaspoon for each pint of label rate per acre.
- Always cap the jar and invert 10 cycles between component additions.
- 4. When the components have all been added to the jar, let the solution stand for 15 minutes.
- 5. Evaluate the solution for uniformity and stability. The spray solution should not have free oil on the surface, nor fine particles that precipitate to the bottom, nor thick (clabbered) texture. If the spray solution is not compatible, repeat the compatibility test with the addition of a suitable compatibility agent. If the solution is then compatible, use the compatibility agent as directed on its label. If the solution is still incompatible, **DO NOT** mix the ingredients in the same tank.

## Mixing Order for Ground-driven and Backpack Sprayers

- 1. **Water.** Begin by agitating a thoroughly clean sprayer tank 1/2 to 3/4 full of clean water.
- 2. **Agitation.** Maintain continuous and constant agitation throughout mixing.
- 3. **Inductor.** If an inductor is used, rinse it thoroughly after each component has been added.
- 4. Products in PVA bags. Place any product contained in water-soluble PVA bags into the mixing tank. Wait until all water-soluble PVA bags have fully dissolved and the product is evenly mixed in the spray tank before continuing.

- Water-dispersible products (dry flowables, wettable powders, suspension concentrates, or suspo-emulsions).
- 6. Water-soluble products.
- 7. Emulsifiable concentrates (such as Tower™ herbicide or oil concentrate when applicable).
- Water-soluble additives (such as ammonium sulfate fertilizer (AMS) or urea ammonium nitrate (UAN) when applicable).
- 9. Remaining quantity of water.

Maintain continuous and constant agitation throughout application until spraying is completed. If the spray mixture is allowed to settle for any period of time, thorough agitation is essential to resuspend the mixture before spraying is resumed. Continue agitation while spraying.

**Additives.** Spray adjuvants have little or no influence on the performance of **Tower** when applications are made prior to weed emergence. However, several tank mixes with **Tower** could require adjuvants to improve burndown of emerged and/or established weeds. Therefore, surfactants or crop oil concentrate may be used with **Tower** tank mixes applied to emerged and/or established weeds. Follow the adjuvant recommendations on the tank mix partner's label.

#### Managing Off-target Movement SPRAY DRIFT

Avoiding spray drift at the application site is the responsibility of the applicator. The interaction of many equipment- and weather-related factors determines the potential for spray drift. The applicator and the grower are responsible for considering all these factors when making decisions. Where states have more stringent regulations, they shall be observed.

To minimize spray drift, the applicator should be familiar with and take into account the following drift reduction advisory information. Additional information may be available from state enforcement agencies or the Cooperative Extension Service on the application of this product.

#### INFORMATION ON DROPLET SIZE

The best drift management strategy and most effective way to reduce drift potential is to apply large droplets that provide sufficient coverage and control.

Applying larger droplets reduces drift potential but will not prevent drift if applications are made improperly or under unfavorable environmental conditions (see WIND; TEMPERATURE AND HUMIDITY; and TEMPERATURE INVERSIONS).

#### **CONTROLLING DROPLET SIZE**

- **Volume.** Use high flow rate nozzles to apply the highest practical spray volume. Nozzles with higher rated flows produce larger droplets.
- Pressure. DO NOT exceed the nozzle manufacturer's recommended pressures. For many nozzle types, lower pressure produces larger droplets. When higher flow rates are needed, use higher flow rate nozzles instead of increasing pressure.
- **Number of Nozzles.** Use the minimum number of nozzles that provide uniform coverage.

- Nozzle Orientation. Orienting nozzles so that the spray is released parallel to the airstream produces larger droplets than other orientations and is recommended practice. Significant deflection from the horizontal will reduce droplet size and increase drift potential.
- Nozzle Type. Use a nozzle type that is designed for the intended application. With most nozzle types, narrower spray angles produce larger droplets. Consider using lowdrift nozzles. DO NOT use nozzles producing a mist droplet spray.

#### **APPLICATION HEIGHT**

Making applications at the lowest possible height (grounddriven spray boom) that is safe and practical reduces exposure of droplets to evaporation and wind.

#### **SWATH ADJUSTMENT**

When applications are made with a crosswind, the swath will be displaced downwind. Therefore, on the upwind and downwind edges of the field, the applicator must compensate for this displacement by adjusting the path of the application equipment (e.g. ground) upwind. Swath adjustment distance should increase with increasing drift potential (higher wind, smaller droplets, etc.).

#### WIND

Drift potential is lowest between wind speeds of 3 to 10 mph. However, many factors, including droplet size and equipment type, determine drift potential at any given speed. Application should be avoided below 3 mph because of variable wind direction and high inversion potential.

**NOTE:** Local terrain can influence wind patterns. Every applicator should be familiar with local wind patterns and how they affect spray drift.

#### **TEMPERATURE AND HUMIDITY**

When making applications in low relative humidity, set up equipment to produce larger droplets to compensate for evaporation. Droplet evaporation is most severe when conditions are both hot and dry.

#### **TEMPERATURE INVERSIONS**

Applications should not occur during temperature inversion because drift potential is high. Temperature inversions restrict vertical air mixing, which causes small suspended droplets to remain in a concentrated cloud that can move in unpredictable directions because of the light, variable winds common during inversions. Temperature inversions are characterized by increasing temperatures with altitude and are common on nights with limited cloud cover and light-to-no wind. They begin to form as the sun sets and often continue into the morning. Their presence can be indicated by ground fog; however, if fog is not present, inversions can also be identified by the movement of smoke from a ground source. 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.



#### **SENSITIVE AREAS**

Spray drift from applying this product may result in damage to sensitive plants adjacent to the treatment area. Only apply this product when the potential for drift to these and other adjacent sensitive areas (e.g. residential areas, bodies of water, known habitat for threatened or endangered species, or nontarget crops) is minimal. **DO NOT** apply when the following conditions exist that increase the likelihood of spray drift from intended targets: high or gusty winds, high temperatures, low humidity, temperature inversions.

#### WIND EROSION

Avoid treating powdery, dry or light sandy soils when conditions are favorable for wind erosion. Under these conditions, the soil surface should first be settled by rainfall or irrigation. 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 area and to avoid spray drift.

#### **Application Methods and Equipment**

Tower™ herbicide will provide most effective weed control when applied by ground equipment and subsequently incorporated into soil by rainfall, sprinkler irrigation, or by mechanical methods prior to weed seedling emergence from soil.

Tower is recommended for preemergence treatment (prior to emergence of weeds). Tower may be applied using water as the spray carrier. Additionally, Tower may be impregnated on and applied with dry bulk fertilizer. Sprayable fluid fertilizer as a carrier is not recommended for use as a postemergence treatment.

#### **Ground Application (Banding)**

When applying **Tower** by banding, determine the amount of herbicide and water volume needed using the following formula:

Bandwidth in inches Row width in inches	, X	Broadcast rate per acre	=	Banding herbicide rate per acre
		or		
Bandwidth in inches Row width in inches	x	Broadcast volume per ac	re :	= Banding water volume per acre

#### **Ground Application (Broadcast)**

**Water Volume.** Use 5 or more gallons of water per acre. The actual minimum spray volume per acre is determined by the spray equipment used and the targeted application use site. Use adequate spray volume to provide accurate and uniform distribution of spray particles over the treated area and to avoid spray drift.

#### **Ground Application (Dry Bulk Fertilizer)**

**Tower** may be impregnated or coated onto dry bulk granular fertilizer carriers for preemergence surface applications. Impregnation or coating may be conducted by either the inplant bulk system or the on-board system. When impregnated onto some dry fertilizer blends, **Tower** may exhibit a strong odor. Perform the mixing operation in well-ventilated areas.

**Tower** may also be applied in herbicide tank mixes where the tank mix companion product is also registered for these application systems. Individuals or agents selling **Tower** in these application systems are responsible for following all state and local regulations regarding fertilizer and herbicide blending.

Addition of a drying agent may be necessary if the fertilizer and herbicide blend is too wet for uniform application due to high humidity, high urea concentration, or low fertilizer use rate. Slowly add the drying agent to the blend until a flowable mixture is obtained. Drying agents are not recommended for use with on-board impregnation systems.

Under some conditions, fertilizer impregnated with **Tower** may clog air tubes or deflector plates on pneumatic application systems. Mineral oil may be added to **Tower** before blending with fertilizer to reduce plugging. **DO NOT** use drying agents when mineral oil is used. To avoid separation of **Tower** and mineral oil mixes in cold temperatures, either keep mixture heated or agitated prior to blending with fertilizer. Mineral oil may be used at in-plant blending stations or on-board injection systems.

Apply 200 to 750 pounds of the fertilizer and herbicide blend per acre. Application must be made uniformly to the soil to prevent possible ornamental plant injury and offer satisfactory weed control. Impregnated fertilizer spread at 1/2 rate and overlapped to obtain a full rate will offer a more uniform distribution. For granular fertilizer application, to protect small birds and mammals, soil incorporation of the granules is required. A shallow (1 to 2 inches) incorporation is desirable for improved weed control. Deeper incorporation may result in unsatisfactory weed control.

### Formula to determine the herbicide rate when using dry bulk fertilizer applications:

fluid ounces or pounds of herbicide per acre pounds of fertilizer per acre	2000	=	fluid ounces or pounds of herbicide per ton of fertilizer	
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Incompatible Fertilizer Mixtures. DO NOT impregnate Tower™ herbicide alone or with mixes on ammonium nitrate, potassium nitrate, or sodium nitrate fertilizers or fertilizer blends. Single super phosphate (0-20-0) and triple super phosphate (0-46-0) may be impregnated only with Tower alone.

#### **Spraying Instructions**

Uniformly apply with properly calibrated spray equipment in sufficient water per acre to uniformly treat the area with a spray pressure of 25 to 50 PSI. Suggested spray volumes are 20 to 200 gpa for landscape and ornamental applications and 10 to 200 gpa for all other noncrop applications such as soft-residual bareground applications. Maintain continuous agitation during spraying with good mechanical or bypass agitation. Avoid overlaps that will increase rates above those specified. Avoid application when winds may cause drift.

Avoid unintentional contact of spray solution with sidewalks driveways, stone, wood, or other porous surfaces.

Cleaning Spray Equipment. Clean application equipment thoroughly by using a strong detergent or commercial sprayer cleaner according to the manufacturer's directions; then triple rinsing the equipment before and after applying this product.

Application with Backpack or Hand-held Spray Equipment. Refer to Table 1 to determine the amount of Tower to be applied per 1000 square feet of area. The amount of water used for the application is not critical but should be sufficient for thorough coverage without runoff. Calibration of backpack sprayer or other hand-held spray equipment will vary with each operator. Determine the amount of water needed to treat 1000 square feet of area before mixing the spray solution. Follow information in Application Mixing Instructions section of this label.

#### **Application Use Rates**

For preemergence control of the weed species (see list in **Table 3**), apply **Tower** at the use rates stated in **Table 1**.

Table 1. Application Use Rates of Tower for Weed Control

Length of Weed Control	Tower (fl ozs/acre)	Fluid Ounces of Tower Required to Treat 1000 sq ft
Low use rate	21	0.48 fl oz (14 ml)
High use rate	32	0.73 fl oz (21 ml)

**Tower** may be applied in a single application or in sequential applications.

In a single application, **DO NOT** apply more than the equivalent of 32 fluid ounces of **Tower** per acre.

For extended weed control, sequential applications of **Tower** can be made a minimum of 6 to 8 weeks between applications. In a single growing year, **DO NOT** apply more than the equivalent of 64 fluid ounces of **Tower** per acre.

#### **Application Restrictions and Limitations**

- **DO NOT** apply more than 1.5 lbs ai dimethenamid-P (32 fluid ounces of **Tower**) per acre per application.
- After applying Tower, wait at least 42 days before making another application.
- Maximum annual use rate. DO NOT apply more than a total of 3.0 pounds of active ingredient dimethenamid-P (64 fluid ounces of **Tower**) per acre per year.
- Restricted-entry Interval (REI): 12 hours
- Stress. Applications to ornamental plants under stress due to lack of moisture, hail damage, flooding, herbicide injury, mechanical injury, or widely fluctuating temperatures may result in crop injury.
- DO NOT contaminate irrigation ditches or water used for domestic purposes.
- DO NOT treat plants grown for food or feed. DO NOT use treated plants for food or feed.
- DO NOT apply this product over more than 30 acres per day using hand-held equipment.
- Tower is not for sale, distribution or use in Nassau and Suffolk counties in New York state.

#### SPECIFIC INFORMATION FOR USE SITES

Areas to be treated with **Tower** should be free of established weeds at the time of treatment, or **Tower** may be used in conjunction with herbicides registered for postemergence use (i.e., glyphosate, **Finale®**) for the control of established weeds in commercial ornamental production nurseries, land-scaped ornamentals, and in other maintenance areas or grounds. **DO NOT** apply sprays containing glyphosate or **Finale** over the top of desirable plants. Consult the labels of those herbicides for suggested treatments, rates to be used, and precautions or restrictions for use in these areas.



#### COMMERCIAL ORNAMENTAL PRODUCTION

Tower™ herbicide can be used in and around field, liner and container nurseries of commercial ornamental production.

**Tower** sprays are safe around and over the top of the established ornamental plants listed in **Table 2** of this label. However, not all varieties or strains of the ornamental plants listed have been tested. Refer to **Application Instructions and Restrictions** sections in charts in this label prior to any application of **Tower**. Unintentional consequences such as ornamental 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 application.

Refer to Table 1 for use rates and Table 3 for weeds controlled.

#### SPECIFIC INFORMATION FOR PRODUCTION ORNAMENTALS'

Site	Application Instructions and Restrictions
Newly transplanted field-grown nursery stock <sup>2,3</sup>	<ul> <li>DO NOT make over-the-top applications at time of field transplanting. Use shielded sprayer until plantings have been established for 1 year or more in the field.</li> <li>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 Tower could come into contact with the roots.</li> <li>DO NOT apply during bud swell, bud break or at time of first flush of new growth.</li> <li>Direct sprays away from graphed or budded tissue on transplants at all times.</li> </ul>
Newly transplanted container-grown nursery stock <sup>2,3</sup>	<ul> <li>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 Tower could come into contact with the roots.</li> <li>For container-grown ornamentals, delay first application of the product to bareroot liners for 2 weeks after transplanting.</li> <li>DO NOT apply during bud swell, bud break or at time of first flush of new growth.</li> <li>Direct sprays away from graphed or budded tissue on transplants at all times.</li> </ul>
Established container or field-grown nursery stock <sup>2,3</sup>	<ul> <li>DO NOT apply during bud swell, bud break or at time of first flush of new growth.</li> <li>Apply as a directed or over-the-top spray.</li> <li>If newly budded or graphed rootstock, apply using a shielded sprayer.</li> <li>Care must be taken to ensure there are no cracks in the soil where Tower could come into contact with the roots.</li> </ul>
Bareground for container placement	
Gravel or ground floors of open- sided lathhouses (shadehouses) or other polyhouse structures that allow polycovers to be removed on a seasonal basis	Apply to soil; then water in (including mulch, gravel, wood chips, or other permeable base); replace containerized ornamentals onto pad.
Greenhouses, polyhouses or other enclosed structures	<b>DO NOT</b> apply in greenhouses, polyhouses or other fully enclosed greenhouse-type structures.

<sup>1</sup> Plant only those desirable plant species listed on this label into soil treated the previous season with **Tower** or injury may occur.

#### **ORNAMENTAL TANK MIXES**

For preemergence control of additional weed species, tank mix **Tower** with **Pendulum® AquaCap™ herbicide** or other similar products such as **Gallery®** or **Princep®**. Refer to manufacturers' labels for specific instructions and follow the most restrictive

Emerged weeds in ornamentals can be controlled using tank mixes containing glyphosate, **Finale®**, **Ornamec®**, **Segment™**, and other similar products. **DO NOT** apply sprays containing glyphosate or **Finale** over the top of ornamental plants.

Before tank mixing, a simple jar test is recommended to ensure compatibility of herbicides.

<sup>&</sup>lt;sup>2</sup> It is recommended that before treating a large number of plants, spray a few plants and observe for 1 to 2 months for plant damage prior to full-scale application.

<sup>&</sup>lt;sup>3</sup> **DO NOT** treat plants grown for food or feed. **DO NOT** use treated plants for food or feed.

Refer to manufacturers' labels for specific use directions, precautions, and limitations before tank mixing with **Tower<sup>TM</sup> herbicide**, and follow those that are most restrictive.

#### TREE PLANTATIONS

**Tower** can also be used for preemergence weed control during site preparation, establishment, and/or maintenance of tree plantations, Christmas tree plantations, conifer and hardwood seedling nurseries, pulpwood farms, and fiber farms. **Tower** may also be used for hardwood and conifer regeneration on Conservation Reserve Program land or similar areas.

#### SPECIFIC INFORMATION FOR TREE PLANTINGS<sup>1</sup>

Site	Application Instructions and Restrictions
Tree plantings including Christmas tree plantations, conifer and hardwood tree seedling nurseries, established trees <sup>2</sup>	<ul> <li>It is important that slit closure has been achieved so herbicide does not directly contact tree roots.</li> <li>DO NOT apply to newly transplanted seedlings until plants have been watered and soil has been thoroughly packed and settled around roots.</li> <li>Directed or over-the-top spray applications can be made except at the time of bud break. DO NOT make applications at bud break under either application method.</li> </ul>

Plant only those desirable plant species listed on this label into soil treated the previous season with **Tower** or injury may occur.

For postemergence control of weeds, use tank mix combinations of **Tower** plus glyphosate, **Finale®**, or other labeled herbicides. Refer to tank mix labeling for species recommendations. Rates for the tank mix compounds should be determined from the product labels of both **Tower** and partner herbicides prior to use. Precaution must be exercised to prevent combination sprays from direct contact with desirable foliage or injury may result. **Tower** plus **diuron** or **simazine** combinations will broaden the weed control spectrum; however, use of combinations may restrict **Tower** usage in sensitive areas. Refer to manufacturers' labels for specific use directions, precautions, and limitations before use, and follow those that are most restrictive.

Refer to Table 1 for use rates, Table 2 for list of tree species, and Table 3 for weeds controlled.

#### LANDSCAPE AND GROUNDS MAINTENANCE

**Tower** can be implemented into landscape and grounds maintenance programs to provide extended preemergence control of certain annual grasses, annual broadleaf weeds and sedges. **Tower** can be used in and around established ornamental plantings in nonagricultural areas as defined in the first section of this label. Refer to **Table 2** for the list of ornamental plants.

#### SPECIFIC INFORMATION for LANDSCAPE' AND ORNAMENTAL PLANTINGS'

Site	Application Instructions and Restrictions
Landscape ornamental plantings <sup>2</sup>	<ul> <li>DO NOT apply to newly transplanted ornamentals until plants have been watered and soil has been thoroughly packed and settled around roots.</li> <li>Apply as a directed or over-the-top spray.</li> <li>Use the lowest labeled rate when making applications. Repeat applications can be made for extended landscape weed control.</li> <li>DO NOT make applications at bud break under either application method (directed, over-the-top).</li> </ul>

Plant only those desirable plant species listed on this label into soil treated the previous year with Tower or injury may occur.

Refer to **Table 1** for use rates and **Table 3** for weeds controlled. See paragraph in **TREE PLANTATIONS** section about tank mix combinations that can be used when individual product labels allow for similar uses, sites and precautions.

<sup>&</sup>lt;sup>2</sup> It is recommended that before treating a large number of plants, spray a few plants and observe for 1 to 2 months for plant damage prior to full-scale application.

<sup>&</sup>lt;sup>2</sup> Before treating a large number of plants, spray a few plants and observe for 1 to 2 months for plant damage prior to full-scale application.

#### **Table 2. Ornamental Species**

**Tower™ herbicide** sprays are safe around and over the top of the established plants listed below. Not all ornamental species or cultivars of species have been tested for plant safety. **Tower** may be used on plant species not listed on this label; however, testing a small number of plants at the specified rate and evaluating for suitability prior to a broad-use application is advised. Treated plants should be evaluated 1 to 2 months following treatment for possible injury.

#### TREES

TREES	
Common Name	Scientific Name
Alder, European black	Alnus glutinosa
Apple	Malus spp.
Arborvitae, American	Thuja occidentalis
Arbutus	Arbutus spp.
Ash, red	Fraxinus pennsylvanica
Ash, white	Fraxinus americana
Aspen, bigtooth	Populus grandidentata
Aspen, quaking	Populus tremuloides
Basswood	Tilia spp.
Birch, European weeping	Betula pendula
Birch, river	Betula nigra
Buckeye, red	Aesculus pavia
Cedar, white	Thuja occidentalis
Chamaecyparis, boulevard	Chamaecyparis pisifera
Cherry, black	Prunus serotina
Cherry, choke	Prunus virginiana
Cherry, Kwanzan	Prunus serrulata
Cherry, Nanking	Prunus tomentosa
Cottonwood	Populus deltoides
Crabapple	<i>Malus</i> spp.
Crape myrtle	Lagerstroemia indica
Cryptomeria, Japanese cedar	Cryptomeria japonica
Cypress, bald	Taxodium distichum
Cypress, Leyland	Cupressocyparis leylandii
Dogwood, flowering	Cornus florida
Dogwood, Korean	Cornus kousa
Dogwood, silky	Cornus amomum
Dogwood, shrub	Cornus spp.
Elm	Ulmus japonica
Elm, winged	Ulmus alata
Eucalyptus (Silver-dollar) tree	Eucallyptus cinera
Fir, balsam	Abies balsamae
Fir, Douglas	Pseudotsuga menziesii
Fir, Fraser	Abies fraseri
Fir, white	Abies concolor
Franklinia	Franklinia spp.
Fringe tree	Chlonenthus retusus
Ginkgo	Ginkgo biloba
Gum, black	Nyssa sylvatica
Gum, sour	Nyssa sylvatica
Haw, black	Viburnum prunifolium
Hawthorn	Crataegus spp. Tsuga canadensis
Hemlock, Canada	Tsuga canadensis
Hemlock, Eastern	llex opaca
Holly, American	Gleditsia triacanthos
Honeylocust	Syringa vulgaris
Lilac, common	Syringa vulgans Syringa reticulata
Lilac, Japanese tree	Tilia spp.
Linden Magnelia causer	лна эрр. Magnolia soulangiana
Magnolia, saucer	Magnolia grandiflora
Magnolia, Southern	Magnolia stellata
Magnolia, star	magnona otonata

TREES (continued)	
Common Name	Scientific Name
Maidenhair tree	Ginkgo biloba
Maple, Norway	Acer platanoides
Maple, Japanese	Acer palmatum
Maple, red	Acer rubrum
Maple, sugar	Acer saccharum
Nannyberry, rusty	Viburnum rufidulum
Oak, Chinquapin	Quercus muehlenbergii
Oak, live	Quercus virginiana
Oak, pin	Quercus palustris
Oak, red	Quercus rubra
Oak, swamp chestnut	Quercus michauxii
Oak, water	Quercus nigra
Oak, white	Quercus alba
Oak, willow	Quercus phellos
Olive	Olea europaea
Palm, date	Phoenix spp.
Palm, fan	Washingtonia spp.
Palm, pindo	Butia spp.
Palm, Washington	Washingtonia spp.
Peach	Prunus persica
Pear, Bradford	Pyrus calleryana 'Bradford'
Pecan	Carya illinoensis
Pine, Austrian	Pinus nigra
Pine, Italian stone	Pinus pinea
Pine, loblolly	Pinus taeda
Pine, Monterey	Pinus radiata
Pine, red	Pinus resinosa
Pine, Scotch	Pinus sylvestris
Pine, Virginia	Pinus virginiana
Pine, white	Pinus strobus
Plum, purple leaf	Prunus cerasifera
Poplar, black	Populus nigra
Redcedar, Eastern	Juniperus virginiana
Redcedar, Western	Thuja plicata
Red ironbark	Eucalyptus sideroxylon 'Rosea'
Redwood, dawn	Metasequoia glyptostroboides
Sequoia, giant	Sequoiadendron giganteum
Serviceberry	Amelanchier laevis
Sourwood	Oxydendrum arboreum
Spruce, Colorado blue	Picea pungens
Spruce, dwarf Alberta	Picea glauca 'albertiana'
Spruce, Norway	Picea abies
Spruce, white	Picea glauca
Sweetgum	Liquidambar styraciflua
Sycamore	Platanus occidentalis
Trachycarpus	Trachycarpus spp.
Tulip tree	Liriodendron tulipifera
Walnut, black	Juglans nigra
Willow, weeping	Salix babylonica
Yellowwood	Cladrastis lutea

Lavender, English

Common Name	Scientific Name
Abelia, glossy	Abelia grandiflora
Alder, witch	Fothergilla gardenii.
Aucuba, gold	Aucuba japonica
Adedba, gold Azalea	Rhododendron sp.
Bamboo, heavenly	Nandina domestica
Barberry	Berberis gladwynensis
Barberry, Japanese	Berberis thunbergii
Blue indigo bush	Dalea gregii
Bottlebrush, lemon	Callistemon citrinus
Boxwood, common	Buxus sempervirens
Boxwood, Japanese	Buxus microphylla
Brittlebush	Encelia farinosa
Buttonbush	Cephalanthus occidentalis
Camellia	Camellia japonica
Cape jasmine	Gardenia jasminoides
Cassia, feathery	Cassia artemisioides
Cordyline	Cordyline spp.
Correa	Correa spp.
Cotoneaster	Cotoneaster apiculatus
Cotoneaster, bearberry	Cotoneaster dammeri
Cotoneaster, rock	Cotoneaster horizontalis
Cypress, Italian	Cupressus sempervirens
Cypress, Leyland	Cupressocyparis leylandii
Deutzia, slender	Deutzia gracilis
Dogwood, red twig	Cornus sericea
Elaeagnus	Elaeagnus ebbingei
Escallonia	Escallonia fradesii
Euonymus	Euonymus fortunei
Euonymus, golden	Euonymus japonica
Euonymus, winged	Euonymus alata
Firethorn	Pyracantha coccinea
Forsythia, border	Forsythia intermedia
Fragrant olive	Osmanthus fragrans
Fuschia, California	Zauschineria californica
Gardenia	Gardenia jasminoides
Hawthorne, Indian	Raphiolepís indica
Hibiscus	Hibiscus syriacus
Holly, Chinese	llex cornuta
Holly, Japanese	llex crenata
Holly, Foster's	llex attenuata 'Fosteri'
Holly, Savannah	llex attenuata
Holly, yaupon	llex vomitoria
Honeysuckle, bush	Diervilla Ionicera
Hopseed bush	Dodonaea viscosa
Hopbush	Dodonaea viscosa
Hydrangea	Hydrangea macrophylla
Juniper	Juniperus sp.
Juniper, Chinese	Juniperus chinensis v. pfitzer
Juniper, shore	Juniperus conferta
Juniper, trailing	Juniperus horizontalis
Laurel, cherry	Prunus laurocerasus Kolmin latifalia
Laurel, mountain	Kalmia latifolia
Laurel, Otto Luyken	Prunus laurocerasus
Laurel, Schipka	Prunus schipkanensis or prunus schipkaensis Viburnum tinus
Laurustinus Lavender English	Lavandula angustifolia
CAMBRIDE CHAISH	LEVELLANIE CHANDING

Lavandula angustifolia

#### SHRUBS (continued)

Common Name	Scientific Name	
Leucothoe	Leucothoe fontanesiana	
Leucothoe, coast	Leucothoe axillaris	
Lilac, cut-leaf	Syringa laciniata	
Lily-of-the-Nile	Agapanthus africanus	
Mahonia	Mahonia aquifolium	
Mock orange	Pittosporum tobira	
Myrtle, compact	Myrtus communis	
Myrtle, wax	Myrica cerifera	
Nandina	Nandina domestica	
Oleander	Nerium oleander	
Oregon holly-grape	Mahonia aquifolium	
Osmanthus	Osmanthus fragrans	
Palm, European fan	Chamaerops humilis	
Palm, Mediterranean fan	Chamaerops spp.	
Phlox, prickly	Leptodactylon californicum	
Photinia, Fraser	Photinia X Fraseri	
Pieris, Japanese	Pieris japonica	
Pine, mugo	Pinus mugo	
Plum, Natal	Carissa grandiflora	
Privet, California	Ligustrum ovalifolium	
Privet, glossy	Ligustrum lucidum	
Privet, variegated	Ligustrum sinensis	
Privet, waxleaf	Ligustrum japonicum	
Pyracantha	Pyracantha coccinea	
Quince, flowering	Chaenomeles japonica	
Ranger, Texas	Leucophyllum frutescens	
Redroot	Ceanothus spp.	
Rhododendron	Rhododendron spp.	
Robira	Pittosporum tobira	
Rose	Rosa spp.	
Spice plant	Illicium parviflorum	
Spiraea	Spiraea Vanhouttei	
Spiraea, Anthony Waterer	Spiraea X bumalda	
Spiraea, Japanese	Spiraea japonica	
Sweet bay	Laurus nobilis	
Trumpet bush	Tecoma stans	
Verbena, lemon	Aloysia triphylla	
Viburnum	Viburnum suspensum Vitex spp.	
Vitex	, ,	
Weigela	Weigela florida	
Wild lilac	Ceanothus spp.	
Wisteria	Wisteria spp.	
Xylosma Xallas da alla	Xylosma congestum Tecoma stans	
Yellowbells	Taxus media	
Yew*		
Yew, Japanese*	Taxus cuspidata	
Yew, Southern*	Podocarpus macrophyllus Yucca filamentosa	
Yucca, Adam's needle	Yucca niamentosa Yucca pendula	
Yucca, weeping	rucca p <del>e</del> ndula	

<sup>\*</sup>Applications of **Tower™ herbicide** should not be made during spring growth or injury to terminals may occur.

## Table 2. Ornamental Species (continued) GROUND COVERS

Common Name	Scientific Name	
Airgo	Ajuga reptans	
Ajuga	Aptenia cordifolia	
Baby sun rose	Fragaria chiloensis	
Beach strawberry	Arctotheca calendula	
Capeweed	Potentilla verna	
Cinquefoil, spring		
Coyotebrush, dwarf	Baccharis pitularis	
Daisy, trailing African	Osteospermum fruticosum	
Dymondia	Dymondia margaretae	
Gazania	Gazania splendens	
Iceplant, large leaf	Carpobrotus edulis	
Ivy, English	Hedera helix	
Ivy, geranium	Pelargonium peltatum	
Jasmine, Asiatic	Trachelospermum asiaticum	
Jasmine, primrose	Jasminum mesnyi	
Jessamine, Carolina	Gelsemium sempervirens	
Manzanita, bearberry	Arctostaphylos uva-ursi	
Miscanthus	Miscanthus spp.	
Mondograss	Ophiopogon japonica	
Morningglory	Convolvulus spp.	
Myoporum	Myoporum parviflolium	
Pachysandra	Pachysandra terminalis	
Potentilla	Potentilla fruticosa	
Red apple	Aptenia cordifolia	
Rosemary	Rosemarinus officinalis	
Rose-of-Sharon (or Aarons beard)	Hypericum calycinum	
Sand strawberry	Fragaria chiloensis	
Sedum	Sedum spurium	
St. John's wort, creeping	Hypericum calycinum	
Stonecrop	Sedum spurium	
Verbena, Peruvian	Verbena peruviana	
Vervain	Verbena peruviana	
Vetch, crown	Vicia sativa	
Vinca	Vinca minor	
Wintercreeper	Euonymous fortunei	

#### **PERENNIALS**

Acacia redolens	
Acacia redoleris	
Asparagus spp.	
Aster novi-belgii	
Stokesia laevis	
Astilbe spp.	
Geum triflorum	
Gypsophila elegans	
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Campanula spp.	
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	Astilbe spp.

#### PERENNIALS (continued)

Common Name	Scientific Name
Daylily	Hemerocallis spp.
Fairy duster	Calliandra eriophylla
Fortnight lily	Moraea spp.
Foxglove	Digitalis purpurea
Freesia	Freesia x hybrida
Gaillardia	Gaillardia pulchella
Geum	Geum spp.
Heather, dwarf	Calluna vulgaris
Lantana, weeping	Lantana montevidensis
Leopard's bane	Doronicum cordatum
Liriope, big blue	Liriope muscari
Liriope, creeping	Liriope spicata
Liriope, variegated	Liriope muscari
Moonbeam	Coreopsis verticillata
Montbretia	Crocosmia crocosmiiflora
Mugwort, Western	Artemesia ludoviciana
Nightshade	Solanum spp.
Orchid, peacock	Acidanthera bicolor
Palm, Areca	Chysalidocarpus lutescens
Palm, pygmy date	Phoenix roebelence
Palm, Washington	Washington robusta
Peony, Chinese	Paeonia lactiflora
Purple gay-feather	Liatris pycnostachys
Purple loosestrife	Lythrum virgatum
Rodgersia	Rodgersia henricie
Rosemary	Rosmarinus officinalis
Sedge	Carex spp.
Statice	Limonium latifolia
Statice, German	Goniolimon tartaricum
Texas bluebonnet	Lupinus texenis
Wonder flower	Ornithogalum thyrsoides
Zephyr lily	Zephyranthes spp.
ORNAMENTAL GRASSES	
Common Name	Scientific Name
Beach grass	Ammophila breviligulata

Common Name	Scientific Name
Beach grass	Ammophila breviligulata
Fescue, blue	Festuca ovina
Fescue, sheep	Festuca ovina
Fountain grass	Pennisetum setaceum
Pampas grass	Cortaderia selloana
Reed canary grass	Phalaris arundinacea
Reed, giant	Arundo spp.
Ribbon grass	Phalaris arundinacea
Tufted hair grass	Deschampsia caespitosa

#### **BEDDING PLANTS**

Common Name	Scientific Name	
Ageratum	Ageratum houstonianum	
Alyssum*	Alyssum saxatile	
Artemesia	Artemesia spp.	
Balloonflower	Platycodon grandiflorum	
Begonia*	Begonia spp.	
Cabbage, ornamental	Brassica olereacea	
Cast iron plant	Aspidistra elatior	
China aster*	Callistephus chinensis	-



## Table 2. Species (continued) BEDDING PLANTS (continued)

Common Name	Scientific Name	
Crocosmia, montebretia	Crocosmia x crocosmiiflora	
Dahlia*	Dahlia spp.	
Dianthus	Dianthus barbatus	
Dusty miller	Senecio cineraria	
Gayfeather	Liatris spp.	
Gazania, treasure flower	Gazania rigens	
Gazania, trailing	Gazania rigens leucolaena	
Kale, ornamental	Brassica napus	
Marigold, African	Tagetes erecta	
Moss rose*	Portulaca grandiflora	
Mum, garden	Chrysanthemum spp.	
Periwinkle*	Vinca major	
Periwinkle, rose	Catharanthus roseus	
Petunia*	Petunia spp.	
Plumosa cockscomb	Celosia cristata	
Portulaca*	Portulaca grandiflora	
Salvia*	Salvia splendens	
Snapdragon	Antirrhinum majus	
Statice*	Limonium spp.	
Sweet William	Dianthus barbatus	
Vinca*	Vinca major	

<sup>\*</sup>Application of **Tower™ herbicide** should not be made sooner than 4 weeks after transplanting for these annuals. Use the lower labeled rate.

#### **Table 3. Weeds Controlled**

**Tower** is a selective preemergence herbicide for controlling annual grasses, annual broadleaf weeds, and sedges listed in **Table 3.** 

#### **GRASS WEEDS**

Common Name	Scientific Name	
Barnyardgrass	Echinochloa crus-galli	
Bluegrass, annual	Poa annua	
Bluegrass, roughstalk	Poa trivialis	
Brome, California	Bromus carinatus	
Brome, downy	Bromus tectorum	
Crabgrass, large	Digitaria sanguinalis	
Crabgrass, smooth	Digitaria ischaemum	
Cupgrass, Southwestern	Eriochloa gracilis	
Cupgrass, woolly*	Eriochloa villosa	
Fescue, rattail	Vulpia myuros	
Foxtail, giant	Setaria fabbri	
Foxtail, yellow	Setaria glauca	
Goosegrass	Eleusine indica	
Johnsongrass, seedling*	Sorghum halepense	
Millet, wild proso*	Panicum miliaceum	
Panicum, fall	Panicum dichotomiflorum	
Panicum, Texas*	Panicum texanum	
Red rice	Oryza sativa	
Ryegrass, Italian	Loium multiflorum	
Sandbur, field	Cenchrus incertus	
Shattercane*	Sorghum bicolor	
Signalgrass, broadleaf*	Brachiaria platyphylla	
Witchgrass	Panicum capillare	

## Table 3. Weeds Controlled (continued) BROADLEAF WEEDS

BROADLEAF WEEDS		
Common Name	Scientific Name	
Amaranth, Palmer	Amaranthus palmeri	
Amaranth, Powell	Amaranthus powellii	
Beggarweed, Florida*	Desmodium tortuosum	
Bittercress	Cardamine spp.	
Chamomile, mayweed	Anthemis cotula	
Carpetweed	Mollugo verticillata	
Doveweed	Murdannia nudiflora	
Eclipta*	Eclipta alba and E. prostrata	
Galinsoga, hairy*	Galinsoga cilata	
Galinsoga, smallflower*	Galinsoga parviflora	
Groundsel, common	Senecio vulgaris	
Lambsquarters, common*	Chenopodium album	
Liverwort	Marchatla polymorpha	
Nightshade, black	Solanum nigrum	
Nightshade, Eastern black	Solanum ptycanthum	
Nightshade, hairy	Solanum sarrachoides '	
Nightshade, cutleaf	Solanum triflorum	
Pearlwort	Sagina procumbens and S. decumbens	
Pigweed, prostrate	Amaranthus blitoides	
Pigweed, redroot	Amaranthus retroflexus	
Pigweed, smooth	Amaranthus hybridus	
Pigweed, tumble	Amaranthus albus	
Purslane, common	Portulaca oleracea	
Pusley, Florida	Richardia scabra	
Ragweed, common*	Ambrosia artemisiifolia .	
Shepherdspurse	Capsella bursa-pastoris	
Spurge, nodding	Euphorbia nutans	
Spurge, spotted	Euphorbia maculata	
Waterhemp, common	Amaranthus rudis	
Waterhemp, tall	Amaranthus tuberculatus	
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#### **SEDGES**

Willowherb, Northern

Common Name	Scientific Name	
Flatsedge, rice Nutsedge, yellow Sedge, annual	Cyperus iria Cyperus esculentus Cyperus compressus	

Epilobium ciliatum

<sup>\*</sup>Denotes partial control or suppression only of the weed.

#### CONDITIONS OF SALE AND WARRANTY

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