SPECIMEN

Group 15 Herbicide

Tower®

Herbicide

For use as a preemergence weed control herbicide in commercial ornamental production, landscape and grounds maintenance, tree plantations, and turfgrass areas

Active Ingredient*:	
dimethenamid-P: (S)-2-chloro-N-(2,4-dimethyl-3-thienyl)-N-(2-methoxy-1-methylethyl)-acetamide	63.9%
Other Ingredients:**	36.1%
Total:	100.0%

*Contains 6.0 pounds of active ingredient per gallon
**Contains petroleum distillates

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 crop 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 Corporation
26 Davis Drive
Research Triangle Park, NC 27709

BASF
We create chemistry

FIRST AID	
If in eyes	• Hold eye open and rinse slowly and gently with water for 15 to 20 minutes. • Remove contact lenses, if present, after the first 5 minutes; then continue rinsing. • Call a poison control center for treatment advice.
If swallowed	• Call a poison control center or doctor immediately for treatment advice. • **DO NOT** induce vomiting unless told to do so by a poison control center or doctor. • **DO NOT** give any liquid to the person. • **DO NOT** give anything by mouth to an unconscious person.
If on skin	• Take off contaminated clothing. • Rinse skin immediately with plenty of water for 15 to 20 minutes. • 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 by 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. 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. **DO NOT** get in eyes or on clothing. Avoid contact with skin. Avoid breathing spray mist. Prolonged or frequently repeated skin contact may cause allergic reactions in some individuals. Wash hands thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco, or using the toilet. Remove and wash contaminated clothing before reuse.

Personal Protective Equipment (PPE)

Applicators and other handlers must wear:

- Long-sleeved shirt and long pants
- Waterproof gloves
- Shoes plus socks
- Protective eyewear

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 exist, use detergent and hot water. Keep and wash PPE separately from other laundry.

Engineering Controls

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: • 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

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 washwater 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 surface-water 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 washwater, 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 back-siphoning into wells, spills, or 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 **Use 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 groundwater is 30 feet or less

Endangered Species Protection

This product may have effects on federally listed threatened or endangered plant species or their critical habitat. When using this product, you must follow the measures contained in the Endangered Species Protection Bulletin for the county or parish in which you are applying the pesticide. To determine whether your county or parish has a Bulletin, and to obtain that Bulletin, consult http://www.epa.gov/espp/, or call 1-844-447-3813 no more than 6 months before using this product. Applicators must use Bulletins that are in effect in the month in which the pesticide will be applied. New Bulletins will generally be available from the above sources 6 months prior to their effective dates.

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 to the application site:

Ground Application
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.

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. Use of **Tower® herbicide** not consistent with this label can result in injury to plants, animals, or persons.

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.

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 and turfgrass.

DO NOT contaminate irrigation ditches or water used for domestic purposes.

Tower is not for sale, distribution, or use in Nassau and Suffolk counties in New York State.

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

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
- Waterproof gloves
- 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. Only protected applicator shall be in the treatment area during application.

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.

(continued)

STORAGE AND DISPOSAL *(continued)*

Pesticide Disposal

Wastes resulting from this product must be disposed of on-site or at a 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. Keep containers closed to avoid spills and contamination.

Container Handling

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 spill of 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 take if 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.

Use Information

Mode of Action

Dimethenamid-P, the active ingredient in **Tower® herbicide**, inhibits shoot growth of germinating seedlings, controlling them before or soon after soil emergence. Dimethenamid-P belongs to the chloroacetamide class of chemistry, designated into the mode of action **Group 15** (mitosis inhibitors).

Use Sites

Tower is a selective preemergence herbicide for the control of certain annual grasses, annual broadleaf weeds, and sedges as they germinate in:

- **Commercial ornamental production**
  - container nursery production
  - field production
- **Residential, commercial or institutional landscape and grounds maintenance**
- **Tree plantings**
  - Christmas tree plantations
  - conifer and hardwood tree seedling nurseries
- **Turfgrass areas**
  - golf courses
  - sod farms
  - commercial and/or industrial grounds
  - parks and recreation areas
  - athletic and sports fields
  - lawns and residential settings
  - schoolyards and playgrounds

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

Tower will not control emerged and/or established weeds.

Application Information

Application Mixing Instructions

Compatibility Test for Mix Components

Before tank mixing, always perform a simple jar test to ensure compatibility of herbicides.

1. 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.
2. 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.
3. 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

Maintain continuous and constant agitation throughout mixing and application until spraying is completed.

1. **Water** - Fill a thoroughly clean sprayer tank 1/2 to 3/4 with clean water and start agitation.
2. **Inductor** - If an inductor is used, rinse it thoroughly after each component has been added.
3. **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.
4. **Water-soluble additives** (such as water-soluble fertilizers when applicable)
5. **Water-dispersible products** (dry flowables, wettable powders, suspension concentrates, or suspo-emulsions)
6. **Water-soluble products** (such as **Pendulum® AquaCap™ herbicide**)
7. **Emulsifiable concentrates** (such as **Tower** or oil concentrate when applicable)
8. **Remaining quantity of water**

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.

Tank Mixing Information

Tower® herbicide 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. The most restrictive labeling applies to tank mixes. Physical incompatibility, reduced weed control, or plant injury may result from mixing **Tower** with other pesticides (fungicides, herbicides, insecticides, or miticides), additives, or fertilizers. Subsequent applications of postemergence herbicides may cause plant injury. Consult your local BASF dealer regarding local tank mix options. Refer to **Plant Safety Restrictions and Limitations** section for more information.

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.

Additives

Spray adjuvants are not required when applications of **Tower** are made before weed emergence. However, tank mixtures with **Tower** and other postemergence herbicides could require the use of adjuvants to increase efficacy. In this case, surfactants or crop oil concentrates may be used with **Tower** tank mixes. Follow the adjuvant specifications on the tank-mix partner 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-related and weather-related factors determines the potential for spray drift. The applicator is responsible for considering all these factors when making decisions. Where states have more stringent regulations, they must 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 Inversion**).

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 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 designed for the intended application. With most nozzle types, narrower spray angles produce larger droplets. Consider using low-drift nozzles. **DO NOT** use nozzles producing a mist droplet spray.

Application Height

Making applications at the lowest possible height (ground-driven 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 application area, 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 Inversion

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 areas) 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 Equipment, Methods, and Rates

Tower® herbicide provides effective weed control when applied by ground equipment and subsequently incorporated into soil by rainfall, sprinkler irrigation, or by mechanical methods before weed seedling emergence from soil.

Spraying Instructions

Ensure uniform application by using spray equipment properly calibrated to deliver spray pressure of 25 to 50 PSI. Suggested spray volumes are 20 to 200 gallons per acre for landscape and ornamental applications and 10 to 200 gallons per acre for turfgrass and other noncrop applications. Avoid overlaps that will increase rates above those specified. 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 Handheld Spray Equipment

Refer to **Table 1** to determine the rate of **Tower** to treat 1000 square feet. The amount of water used for the application should be sufficient for thorough coverage without runoff. Calibration of backpack sprayers or other handheld spray equipment will vary with each operator. Determine the amount of water needed to treat 1000 square feet before mixing the spray solution. Follow information in **Application Mixing Instructions** section of this label.

Application Rates

For preemergence control of weeds in **Table 14**, apply **Tower** at use rates in **Table 1**.

Table 1. Application Rates

Rate	Tower (fl ozs/acre)	Tower (fl ozs/1000 sq ft)
Low*	21	0.48 (14 mL)
High	32	0.73 (21 mL)

*Where heavy weed infestations are expected, apply up to 32 fluid ounces of **Tower** per acre.

Tower may be applied in a single application or in sequential applications not to exceed 64 fluid ounces per acre per year.

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 5 to 8 weeks apart in turfgrass, and 6 to 8 weeks apart in ornamentals. **DO NOT** apply more than 64 fluid ounces of **Tower** per acre per year. **Tower** may be applied in a sequential application program or tank mixed with other herbicides that control emerged weeds.

Ground Application (dry bulk fertilizer)

Tower may be impregnated or coated onto dry bulk granular fertilizer carriers to provide preemergence weed control as a surface application. Impregnation or coating may be conducted by the in-plant bulk system or the on-board system at the fertilizer manufacturer. When impregnated onto some dry fertilizer blends, **Tower** may have a strong odor. Apply **Tower** within 30 days after impregnation on dry bulk fertilizer.

DO NOT impregnate **Tower** alone or with mixes on ammonium nitrate, potassium nitrate, or sodium nitrate fertilizers or fertilizer blends. **Tower** can only be impregnated in single super phosphate (0-20-0) and triple super phosphate (0-46-0).

Apply 200 to 750 pounds of the fertilizer and herbicide blend per acre. Application must be made uniformly to the soil to prevent injury to desirable plants and provide acceptable weed control. Apply impregnated fertilizer at 1/2 rate and overlap to ensure uniform distribution and a full rate application. Formula to determine the herbicide rate when using dry bulk fertilizer application:

$$\frac{\text{fluid ounces or pounds of herbicide per acre}}{\text{pounds of fertilizer per acre}} \times 2000 = \text{fluid ounces or pounds of herbicide per ton of fertilizer}$$

Application Restrictions

- **DO NOT** apply more than 1.5 lbs active ingredient dimethenamid-P (32 fluid ounces of **Tower® herbicide** or 0.73 fluid ounces per 1000 sq ft of **Tower**) per acre per application.
- **Maximum annual use rate** - **DO NOT** apply more than a total of 3.0 pounds of active ingredient dimethenamid-P (64 fluid ounces per acre or 1.46 fluid ounces per 1000 sq ft of **Tower**) per year.
- **To avoid the possibility of plant damage, DO NOT** apply **Tower** to turfgrass or ornamental plants growing under stress such as from disease, cold weather, excessive moisture, high soil pH, high soil salt concentration, or drought.
- **DO NOT** apply **Tower** to **actively growing** turfgrass and/or ornamental plants when soil temperature is less than 55º F or as plants are coming out of dormancy.
- **DO NOT** apply to plants showing symptoms of stress or injury, such as stunting, wilting, leaf burn or drop, or abnormal growth.
- **DO NOT** apply through any type of irrigation system.
- **DO NOT** apply by air.
- **DO NOT** harvest fruit, nuts, or berries for one year after **Tower** application.
- **DO NOT** apply this product over more than 30 acres per day using handheld equipment.
- **DO NOT** tank mix **Tower** with other insecticides, fungicides, herbicides, plant growth regulators, additives, or adjuvants that have not been evaluated for plant tolerance under local conditions. See **Plant Tolerance and Phytotoxicity Notice** for more information.

Specific Use Site Information

Commercial Ornamental Production

Tower 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 established ornamental plants listed in **Table 5**.

Applications can be made to ornamental plants listed on this label including:
- bedding plants
- ornamentals grown for cut flowers
- flower bulbs
- ground covers
- herbaceous perennials
- shrubs
- trees
- woody plants

Applications can also be made to:
- seedling juvenile fruit and nut trees;
- tree plantings, including: Christmas tree plantations, conifer and hardwood tree seedling nurseries;
- liner beds within a nursery;
- nonproduction areas in commercial nurseries including storage areas, vegetation filter strips, windbreaks, shelterbelts, cart paths, and graveled areas.

Tower may be applied to juvenile fruit and nut trees, vines, brambles, and bushberries grown in commercial ornamental production nurseries. Juvenile trees, vines, brambles, and bushberries are grown in ornamental production nurseries where immature and/or inedible fruits or nuts or berries may appear on the tree, vine, bramble, and bush but are not intended for harvest or consumption.

Areas to be treated with **Tower** should be free of established weeds at the time of treatment.

NOTE: Tower can only be used on established liner beds with well-rooted plants and/or rootstocks.

Plant Tolerance and Phytotoxicity Notice

Tower has been applied to a wide variety of common ornamental plants without observed plant injury. Refer to **Table 5** for the list of plants shown to be tolerant to **Tower**. Not all species, varieties, and cultivars have been tested for tolerance to **Tower**, possible tank mix combinations with **Tower**, pesticide treatments before or after those with **Tower**, and combinations of **Tower** with surfactants or adjuvants. Local conditions can also influence plant tolerance and may not match those under which BASF has conducted testing. Because many cultivars within a plant species vary in tolerance to chemical applications and growing conditions, the grower must recognize these differences and test the product accordingly. At a minimum, always test a small group of representative plants for tolerance to **Tower** under local growing conditions and before large-scale use. Refer to **Table 2** for the list of sensitive ornamental plants and to **Table 4** for specific ornamental use-site application instructions and restrictions.

Grower assumes responsibility for testing ornamental suitability under local growing conditions by treating a small number of plants at the specified rate. **At a minimum, this should include evaluating treated plants for 1 to 2 months** following treatment for possible injury or other effects. To the extent consistent with applicable law, by applying **Tower® herbicide**, the user assumes responsibility for any plant damage or other liability associated with factors beyond the manufacturer's control, such as weather, presence of other materials, and manner or use of application inconsistent with this labeling.

Table 2. Sensitive Ornamentals Plants

DO NOT apply **Tower** to these ornamentals as unacceptable phytotoxicity may occur.

Common Name	**Scientific Name**
African iris	*Agapanthus* spp.
Begonia	*Begonia* spp.
Blue fescue	*Festuca glauca*
California fuchsia	*Epilobium canum*
Candytuft	*Iberis sempervirens*
Columbine	*Aquilegia* spp.
Feather reed grass	*Calamagrostis acutiflora*
Fountaingrass	*Pennisetum* spp.
Impatiens	*Impatiens* spp.
Miscanthus	*Miscanthus* spp.
Muhly grass	*Muhlenbergia* spp.
Purple coneflower	*Echinacea purpurea*
Ribbon grass	*Phalaris* spp.
Sedum and/or Stonecrop	*Sedum* spp.
Tufted hair grass	*Deschampsia* spp.

Ornamental Tank Mixes

To expand the weed control spectrum, **Tower** can be tank mixed with **Pendulum® AquaCap™ herbicide** or **Pendulum® 3.3 EC herbicide**, or other herbicides labeled for preemergence weed control in ornamentals. Refer to **Table 3. Special Instructions for Control of Weeds in Ornamentals** and the manufacturer's labels for specific instructions and follow the most restrictive.

Table 3. Special Instructions for Control of Weeds in Ornamentals

Target Weeds	Initial Application		Sequential* Application(s)	
	Late Winter to Early Spring	**Spring** (soil temperature at 55º F or higher)	**First Application**	**Second Application**
Consult **Table 14. Weeds Controlled**	**Pendulum® AquaCap™ herbicide**, **Pendulum® 3.3 EC herbicide**, or **Pendulum® 2G herbicide** (or other preemergence herbicide, see product labels for use rates)	**Tower® herbicide** 21 to 32 fl ozs/A or **Tower** 21 to 32 fl ozs/A plus **Pendulum AquaCap**, **Pendulum 3.3 EC**, or **Pendulum 2G** (or other preemergence herbicide, see product labels for use rates)	**Tower** 21 to 32 fl ozs/A	—
	Pendulum AquaCap, **Pendulum 3.3 EC**, or **Pendulum 2G** (or other preemergence herbicide, see product labels for use rates)	**Pendulum AquaCap**, **Pendulum 3.3 EC**, or **Pendulum 2G** (or other preemergence herbicide, see product labels for use rates)	**Tower** 21 to 32 fl ozs/A	**Tower** 21 to 32 fl ozs/A or **Tower** 21 to 32 fl ozs/A plus **Pendulum AquaCap**, **Pendulum 3.3 EC**, or **Pendulum 2G** (or other preemergence herbicide, see product labels for use rates)

*Sequential applications should be applied at a 5-week to 8-week interval following the previous application.

Table 4. Specific Ornamental Use Site Instructions

Site	Application Instructions
Newly transplanted field-grown nursery stock	• Direct spray away from grafted or budded tissue on transplants at all times. **Application Restrictions** • **DO NOT** apply over the top at time of field transplanting. Use shielded sprayer until plantings have been established for 1 year or more in the field. • **DO NOT** apply until transplants have been watered and soil has been thoroughly packed and settled around transplants. Ensure there are no cracks in the soil where **Tower® herbicide** could come into contact with the roots. • **DO NOT** use on bareroot liner production beds until liners are well-rooted. • **DO NOT** apply during bud swell, bud break, or at time of first flush of new growth.
Newly transplanted container-grown nursery stock	• Direct spray away from grafted or budded tissue on transplants at all times. • For container-grown ornamentals, delay first application of the product to bareroot liners or young seedlings (e.g. plugs) for 2 weeks after transplanting. **Application Restrictions** • **DO NOT** apply until transplants have been watered and soil has been thoroughly packed and settled around transplants. Ensure there are no cracks in the soil where **Tower** could come into contact with the roots. • **DO NOT** apply to unrooted liners or to plugs. Liners must be well-rooted and soil settled in pot with previous irrigation events before use in container. • **DO NOT** apply during bud swell, bud break, or at time of first flush of new growth.
Established container or field-grown nursery stock or ornamentals grown for cut flowers	• Apply as a directed or over-the-top spray and follow application with irrigation. • If newly budded or grafted rootstock, apply using a shielded sprayer. • Ensure there are no cracks in the soil where **Tower** could come into contact with the roots. **Application Restrictions** • **DO NOT** use on bareroot liner production beds until liners are well-rooted. • **DO NOT** apply during bud swell, bud break, or at time of first flush of new growth.
Field-grown or container-grown production bulbs or bulbs grown for cut flowers	• For use in ornamental bulbous-like plants: caladium, calla lily, daffodil (narcissus or jonquil), iris, and lily. • In field production, apply **Tower** to the soil surface only after planting and the soil has been settled by several irrigations but before weed seed germination. • In fall-planted daffodil, iris, or lily, make an initial application of **Tower** following planting establishment; then make a sequential application of **Tower** in late winter or early spring before weed seed germination. • In container production, apply **Tower** to a weed-free surface before bulb emergence or after leaf emergence from an established plant crown. • Not for use on bulbs grown in California
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	• When used for weed control on bareground areas used for plant storage or outside of certain structures, apply **Tower** as described below: 1. Apply to soil (including mulch, gravel, wood chips, or other permeable base). 2. Water in. 3. Place containerized ornamentals on pad.
Greenhouses, polyhouses, or other enclosed structures	**DO NOT** apply in greenhouses, polyhouses, or other fully enclosed greenhouse-type structures.

(continued)

Table 4. Specific Ornamental Use Site Instructions *(continued)*

Site	Application Instructions and Restrictions
SENSITIVE Ornamentals	
Herbaceous perennials or annuals not listed on this label	If the ornamental plant is not listed on this label, the user assumes responsibility for testing under local conditions before any application. See **Table 2** for list of sensitive ornamental plants.
Conifers	**DO NOT** apply **Tower® herbicide** during spring growth or injury to terminals may occur, in particular to ***Pinus*** and ***Taxus*** species.
Bedding plants	Apply the **Low** rate of **Tower** 4 or more weeks after transplanting. Application less than 4 weeks after transplanting may result in phytotoxicity for the following annuals: • Catmint • Salvia • Gomphrena • Zinnia • Petunia
Shrubs or Trees	**DO NOT** apply **Tower** sequentially to the plants listed below. During the growing season, a second application of **Tower** can be made if a herbicide with a different mode of action is applied between **Tower** applications. **Tower** applications must be separated by at least 16 weeks. • Azalea • Chinese fringe flower • Maple • Spirea • Boxelder • Heavenly bamboo • Oak • Viburnum • Butterfly bush • Lilac • Rhododendron

Table 5. Ornamental Plants

Common Name	Scientific Name	Plant also registered for Use in California?
	Trees	
Apple (juvenile)	*Malus* spp.	Yes
Arborvitae	*Thuja* spp.	
Ash	*Fraxinus* spp.	Yes
Birch	*Betula* spp.	Yes
Boxelder	*Acer* spp.	
Cedar	*Thuja* spp.	
Cedar, Japanese	*Cryptomeria* spp.	
Crabapple	*Malus* spp.	Yes
Crape myrtle	*Lagerstroemia* spp.	
Dogwood	*Cornus* spp.	
Elm	*Ulmus* spp.	
Fir	*Abies* spp.	
Fir, Fraser	*Abies fraseri*	
Fir, Douglas	*Pseudotsuga menzeii*	Yes
Hemlock	*Tsuga* spp.	Yes
Holly	*Ilex* spp.	
Honeylocust	*Gleditsia* spp.	
Lilac	*Syringa* spp.	
Maple, Japanese Maple, red Maple, sugar	*Acer* spp.	
Oak	*Quercus* spp.	Yes
Peach (juvenile)	*Prunus* spp.	Yes
Pine	*Pinus* spp.	Yes
Red cedar, Western	*Thuja plicata*	
Spruce	*Picea* spp.	Yes
Walnut, black (juvenile)	*Juglans* spp.	

(continued)

Table 5. Ornamental Plants *(continued)*

Common Name	Scientific Name	Plant also registered for Use in California?
	Shrubs	
Abelia	*Abelia* spp.	Yes
Azalea	*Rhododendron* spp.	
Bamboo, heavenly	*Nandina domestica*	
Barberry, Japanese	*Berberis* spp.	
Bottlebrush	*Callistemon* spp.	
Boxwood, common Boxwood, Japanese	*Buxus* spp.	Yes Yes
Bridal wreath	*Spiraea* spp.	Yes
Butterfly bush	*Buddleia* spp.	
Camellia	*Camellia* spp.	Yes
Cardinal shrub	*Weigela* spp.	
Cinquefoil	*Potentilla* spp.	
Cotoneaster	*Cotoneaster* spp.	
Dogwood	*Cornus* spp.	
Euonymus, winged	*Euonymus alatus*	
Fetterbush	*Leucothoe* spp.	
Forsythia	*Forsythia* spp.	Yes
Fringe flower, Chinese	*Loropetalum* spp.	
Hawthorn, Indian	*Raphiolepis* spp.	Yes
Hibiscus	*Hibiscus* spp.	
Holly Holly, American Holly, Chinese Holly, Japanese	*Ilex* spp.	
Hydrangea	*Hydrangea* spp.	
Juniper, Chinese Juniper, shore Juniper, trailing	*Juniperus* spp.	Yes Yes Yes
Lantana	*Lantana* spp.	Yes
Laurustinus	*Viburnum* spp.	Yes
Lavender	*Lavandula* spp.	Yes
Leucothoe, drooping	*Leucothoe* spp.	
Lilac	*Syringa* spp.	
Nandina	*Nandina domestica*	
Olive, false Olive, fragrant Olive, sweet Olive, tea	*Osmanthus* spp.	
Osmanthus	*Osmanthus* spp.	
Pieris, Japanese	*Pieris japonica*	
Pine Pine, mugo	*Pinus* spp.	Yes Yes
Privet, California Privet, glossy Privet, variegated Privet, waxleaf	*Ligustrum* spp.	
Quince, flowering	*Chaenomeles* spp.	
Rhododendron	*Rhododendron* spp.	
Rose	*Rosa* spp.	Yes

(continued)

Table 5. Ornamental Plants *(continued)*

Common Name	Scientific Name	Plant also registered for Use in California?
	Shrubs *(continued)*	
Shrub verbena	*Lantana* spp.	Yes
Spirea	*Spiraea* spp.	Yes
Viburnum	*Viburnum* spp.	Yes
Weigela	*Weigela* spp.	
Wild lilac	*Ceanothus* spp.	
Wisteria	*Wisteria* spp.	Yes
Yew	*Taxus* spp.	Yes
	Ground Covers	
Cinquefoil	*Potentilla* spp.	
Iceplant	*Delosperma* spp.	
Jasmine, Asiatic	*Trachelospermum* spp.	
Mondograss	*Ophiopogon* spp.	Yes
Potentilla	*Potentilla* spp.	
	Herbaceous Perennials	
Agapanthus	*Agapanthus* spp.	
Bluebeard, Blue mist shrub	*Caryopteris* spp., *Caryopteris* x *clandonensis*	
Caladium (Elephant ear)	*Caladium* x *hortorum*	
Calla lily	*Calla* spp., *Zantedeschia Spreng*., *Z. aethiopica*	
Century plant	*Agave* spp.	
Clematis	*Clematis* spp.	
Daffodil	*Narcissus* spp.	
Daylily	*Hemerocallis* spp.	Yes
Fern, August Fern, shaggy	*Dryopteris* spp.	
Hosta	*Hosta* spp.	Yes
Iris	*Iris* spp.	
Jonquil	*Narcissus* spp.	
Lantana	*Lantana* spp.	Yes
Lily of the Nile	*Agapanthus* spp.	
Lily Lily, Asiatic Lily, Oriental	*Lilium* spp.	
Lily, plantain	*Hosta* spp.	Yes
Lilyturf Liriope, big blue Liriope, creeping Liriope, variegated	*Liriope* spp.	
Mum, hardy	*Dendranthema* x *morifolium*	
Narcissus	*Narcissus* spp.	
Sage	*Salvia* spp., *Salvia* x *sylvestris*	
Sedge, grassland	*Carex* spp.	Yes
Shrub verbena	*Lantana* spp.	Yes
	Bedding Plants	
Angelonia	*Angelonia* spp.	
Catmint	*Nepeta* spp.	
Celosia	*Celosia* spp.	
Cockscomb	*Celosia* spp.	
Coleus	*Coleus* spp., *C.* x *hybridus*, *Solenostemon* spp.	

(continued)

Table 5. Ornamental Plants *(continued)*

Common Name	Scientific Name	Plant also registered for Use in California?
Bedding Plants *(continued)*		
Gomphrena	*Gomphrena* spp.	
Marigold, African	*Tagetes* spp.	
Petunia	*Petunia* spp.	
Salvia	*Salvia* spp.	
Sweet potato vine	*Ipomoea* spp.	
Zinnia	*Zinnia* spp.	

Landscape and Grounds Maintenance

Tower® herbicide can be used in landscape and grounds maintenance programs for extended preemergence weed control. **Tower** can be used in and around established ornamental plantings in nonagricultural areas defined as follows:

- **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.
- **Specified noncrop areas** including 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. **Tower** may be used under asphalt or concrete treatments as part of a site-preparation program.

Table 6. Specific Landscape and Ornamental Planting Use Site Instructions

Site	Application Instructions
Landscape ornamental planting*	• Apply as a directed or over-the-top spray. • Use the **Low** labeled rate. Repeat applications for extended landscape weed control. **Application Restrictions** • **DO NOT** apply to sensitive ornamental plants listed in **Table 2**. • **DO NOT** apply to newly transplanted ornamentals until plants have been watered and soil has been thoroughly packed and settled around roots. • **DO NOT** apply at bud break.
*Before applying **Tower**, refer to the **Plant Tolerance and Phytotoxicity Notice** section.	

Refer to **Table 1** for use rates, **Table 5** for list of tolerant ornamental plants, and **Table 14** for weeds controlled. If weed control necessitates a tank mix of herbicides, see **Tank Mixes** in **Tree Plantations** section for tank mix combinations that can be used when individual product labels allow for similar uses, sites, and precautions.

Tree Plantations

Tower can 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, fiber farms and nurseries for fruit and nut tree seedlings and rootstock. **Tower** may also be used for hardwood and conifer regeneration on Conservation Reserve Program land or similar areas.

Table 7. Specific Tree Planting Use Site Instructions

Site	Application Instructions
Tree planting including Christmas tree plantations, conifer and hardwood tree seedling nurseries, established trees*	• **IMPORTANT:** Close slit so herbicide does not directly contact tree roots. • Directed or over-the-top spray applications can be made except at the time of bud break. **Application Restrictions** • **DO NOT** apply to newly transplanted seedlings until plants have been watered and soil has been thoroughly packed and settled around roots. • **DO NOT** apply at bud break.
*Before applying **Tower**, refer to the **Plant Tolerance and Phytotoxicity Notice** section.	

Tank Mixes

Use tank mix* combinations of **Tower® herbicide** plus glyphosate, glufosinate, or other labeled herbicides for broad spectrum postemergence control of weeds. Determine rates for the tank mix partner from product labels before use. Use caution to prevent combination sprays from direct contact with desirable foliage, or injury may result. Refer to manufacturers' labels for specific use directions, precautions, and limitations before use, and always follow the most restrictive label. Refer to **Table 1** for use rates, **Table 5** for list of tolerant ornamental trees, and **Table 14** for weeds controlled.

*Refer to **Tank Mixing Information** section for further instructions.

Turfgrass - Golf Course

Tower may be used as part of a preemergence weed management program in select turfgrass use sites:

• Golf courses

Apply **Tower** as directed for preemergence control or suppression of weeds listed in **Table 14**.

Application Instructions

Apply **Tower** with ground equipment in a minimum spray volume of 10 gallons water per acre. **Tower** may also be applied through ground equipment containing spray injection systems in a minimum spray volume of 5 gallons water per acre.

Tower is a preemergence herbicide therefore all applications must be made before weed seed germination.

NOTE: Spring applications can be made when soil temperature is 55º F or higher. If application is made before soil temperature reaches 55º F, injury may occur.

Tower may be applied in a single application or sequential applications. **DO NOT** apply more than 64 fluid ounces (3 lbs ai) of **Tower** per acre per year.

For extended weed control, sequential applications of **Tower** can be made 5 to 8 weeks between applications. **Tower** may be applied in a sequential use program with other herbicides that control emerged weeds in turfgrass. Refer to **Table 10** for special instructions.

Tower must be watered into the soil with rainfall or irrigation equivalent to 1/4 inch to 1/2 inch of rainfall within 24 hours after application. If **Tower** is not activated by rainfall or irrigation, erratic weed control may result.

Weed control may be reduced when **Tower** is applied to turfgrass stands under conditions of heavy thatch.

Apply **Tower** to cool-season and warm-season turfgrass species as described in **Table 8**. Follow all instructions, restrictions, and limitations listed in **Table 9 (a**, **b)**. Apply **Tower** at use rates only as directed on listed turfgrass species. To the extent of applicable law, the user assumes all risk with application of **Tower** to any other turfgrass species not listed as tolerant in **Table 8**. If **Tower** applications are intended for turfgrass species not listed in **Table 8**, treat a small area before making a large scale application. See the **Plant Tolerance and Phytotoxicity Notice** section for more information.

Table 8. Tolerant Turfgrass Species to Applications of Tower

Species	Tower Use Rate/Range (fl ozs/A)
Warm-season Turfgrass	
Bahiagrass†	21 to 32
Bermudagrass, common or seeded	21 to 32
Bermudagrass, hybrid	21 to 32
Buffalograss†	21 to 32
Centipedegrass†	21 to 32
Kikuyugrass†	21 to 32
St. Augustinegrass	21 to 32
Seashore paspalum†	21 to 32
Zoysiagrass†	21 to 32
Cool-season Turfgrass	
Bentgrass	21
Bluegrass, Kentucky†	21
Fine fescue†	21
Perennial ryegrass	21
Tall fescue (established)	21
Tall fescue (transition zone, re-seeded)†	21

†Not labeled for use in California

Table 9a. Specific Instructions and Restrictions for Golf Course Turfgrass Species

Turfgrass Use Site	Application Instructions
Cool-season turfgrass	• Apply **Tower® herbicide** to **actively growing** cool-season turfgrass when soil temperature is 55º F or higher. • **Tower** application to cool-season turfgrass species may result in injury/yellowing and unacceptable thinning/stand reduction. • Apply **Tower** only to dense, uniform and well-established stands of cool-season turfgrass mown at a height of 1/2-inch or taller. • Avoid making applications of **Tower** to turfgrass stands under stress or injury may occur. Allow turfgrass to recover before making a **Tower** application. • Avoid spring application of **Tower** on fall-seeded cool-season turfgrass or unacceptable thinning/stand reduction and yellowing of the cool-season species may occur. **Application Restrictions** • **DO NOT** use **Tower** on desirable winter overseeded turfgrass species including, but not limited to, perennial ryegrass, creeping bentgrass or roughstalk bluegrass *(Poa trivialis)* as discoloration/yellowing and/or stand reduction can occur. • **DO NOT** apply **Tower** to turfgrass where annual bluegrass *(Poa annua)* or roughstalk bluegrass is part of the stand. **Tower** will injure, thin and discolor both seedling and established annual and roughstalk bluegrasses. • **DO NOT** apply **Tower** to turfgrass within 2 weeks following mechanical disturbance including core cultivation or verticutting.
Warm-season turfgrass	• Apply **Tower** to **actively growing** warm-season turfgrass when soil temperature is 55º F or higher. • Apply **Tower** only to dense, uniform and well-established stands of warm-season turfgrass. • Avoid making applications of **Tower** to turfgrass stands under stress or injury may occur. Allow turfgrass to recover before making a **Tower** application. **Application Restrictions** • **DO NOT** apply **Tower** to turfgrass within 2 weeks following mechanical disturbance including core cultivation or verticutting.
Overseeded warm-season turfgrass	• Apply **Tower** to aid in removal of cool-season turfgrass used to overseed warm-season turfgrass. Apply only when soil temperature is above 55º F and warm-season turfgrass is actively growing. • Delay overseeding with cool-season turfgrass species for at least six (6) weeks following the last **Tower** application. • Application of a nitrogen-containing fertilizer at or soon after a **Tower** application will minimize delay in spring green-up. **Application Restrictions** • **DO NOT** use **Tower** on desirable winter overseeded turfgrass species including, but not limited to, perennial ryegrass, creeping bentgrass or roughstalk bluegrass as discoloration/yellowing and/or stand reduction can occur.
Sprigging warm-season turfgrass	• Delay **Tower** applications for at least one (1) month after sprigging or until sprigs are successfully rooted. • Following a **Tower** application, delay sprigging turfgrass into treated area for one (1) month.
Dormant warm-season turfgrass	• **Tower** can be tank mixed with glyphosate or other postemergence herbicides for application to dormant, non-overseeded turfgrass stands.

Table 9b. Instructions and Restrictions for Golf Course Turfgrass Use Sites

Turfgrass Use Site	Application Instructions
Golf course	• **Tower® herbicide** may be applied to established turfgrass on tees, fairways, roughs, and any other maintained or naturalized turfgrass areas on the golf course. **Application Restrictions** • **DO NOT** apply **Tower** to putting greens. • **DO NOT** apply to turfgrass within 2 weeks after mechanical disturbance such as aerification or verticutting.
Naturalized areas	• **Tower** may be used to control weeds in naturalized grass areas on species listed in **Table 8**. Some species may have a reduction or elimination of seedheads. • **Tower** may be used to control weeds in naturalized wildflower and/or ornamental areas on plants listed in **Table 5**.

Turfgrass Tank Mixes

Tower may be tank mixed with the following golf course turfgrass herbicides including, but not limited to:

- **Basagran® T&O herbicide**
- **Drive® XLR8 herbicide**
- **Pendulum® AquaCap™ herbicide**
- **Pendulum® 3.3 EC herbicide**
- glyphosate

When tank mixing with **Pendulum AquaCap**:

1. Add **Pendulum AquaCap** to the partially filled spray tank, while agitating.
2. Add **Tower**.
3. Fill the remainder of the spray tank with water.

BASF recommends testing **Tower** tank mixes on a small portion of the target turfgrass to determine if damage is likely to occur. Consult your local BASF dealer regarding local tank mix options.

Table 10. Special Instructions for Control of Key Weeds in Golf Course Turfgrass

BASF recommends a sequential herbicide application program including **Tower** for control of the following key weeds in golf course turfgrass. Begin weed management programs before seasonal germination of weed seeds.

Target Weeds	Initial Application		Sequential* Application(s)	
	Late Winter to Early Spring	**Spring** (soil temperature at 55° F or higher)	**First Application**	**Second Application**
Goosegrass	**Pendulum AquaCap**, **Pendulum 3.3 EC**, or **Pendulum® 2G herbicide** (or other preemergence herbicide, see product labels for use rates)	**Tower** 32 fl ozs/A	**Tower** 32 fl ozs/A	—
	Pendulum AquaCap, **Pendulum 3.3 EC**, or **Pendulum 2G** (or other preemergence herbicide, see product labels for use rates)	**Pendulum AquaCap**, **Pendulum 3.3 EC**, or **Pendulum 2G** plus **Tower** 21 fl ozs/A	**Tower** 21 fl ozs/A	**Tower** 21 fl ozs/A

(continued)

Table 10. Special Instructions for Control of Key Weeds in Golf Course Turfgrass *(continued)*

Target Weeds	Initial Application		Sequential* Application(s)	
Annual sedges† Kyllinga† Nutsedge	**Spring** (soil temperature at 55º F or higher)		**First Application**	**Second Application**
	Tower® herbicide 32 fl ozs/A		**Tower** 32 fl ozs/A	—
	Tower 21 fl ozs/A		**Tower** 21 fl ozs/A	**Tower** 21 fl ozs/A
Target Weeds	**Initial Application**		**Sequential* Application(s)**	
Doveweed†	**Late Winter to Early Spring**	**Spring** (soil temperature at 55º F or higher)	**First Application**	**Second Application**
	Pendulum® AquaCap™ herbicide, **Pendulum® 3.3 EC herbicide**, or **Pendulum® 2G herbicide** (or other preemergence herbicide, see product labels for use rates)	**Tower** 32 fl ozs/A	**Tower** 32 fl ozs/A	—
	Pendulum AquaCap, **Pendulum 3.3 EC**, or **Pendulum 2G** (or other preemergence herbicide, see product labels for use rates)	**Pendulum AquaCap**, **Pendulum 3.3 EC**, or **Pendulum 2G** plus **Tower** 21 fl ozs/A	**Tower** 21 fl ozs/A plus postemergence herbicide**	**Tower** 21 fl ozs/A plus postemergence herbicide**
	Pendulum AquaCap, **Pendulum 3.3 EC**, or **Pendulum 2G** (or other preemergence herbicide, see product labels for use rates)	**Pendulum AquaCap**, **Pendulum 3.3 EC**, or **Pendulum 2G**	**Tower** 21 fl ozs/A plus postemergence herbicide**	**Tower** 21 fl ozs/A plus postemergence herbicide** **Repeat treatment again in 5 to 8 weeks** to provide control until frost.

(continued)

Table 10. Special Instructions for Control of Key Weeds in Golf Course Turfgrass *(continued)*

Target Weeds	Initial Application		Sequential* Application(s)	
Spurge and other warm-season broadleaf species	**Late Winter to Early Spring**	**Spring** (soil temperature at 55º F or higher)	**First Application**	**Second Application**
	Pendulum® AquaCap™ herbicide, **Pendulum® 3.3 EC herbicide**, or **Pendulum® 2G herbicide** (or other preemergence herbicide, see product labels for use rates)	**Tower® herbicide** 32 fl ozs/A	**Tower** 32 fl ozs/A	—
	Pendulum AquaCap, **Pendulum 3.3 EC**, or **Pendulum 2G** (or other preemergence herbicide, see product labels for use rates)	**Pendulum AquaCap**, **Pendulum 3.3 EC**, or **Pendulum 2G** plus **Tower** 21 fl ozs/A	**Tower** 21 fl ozs/A	**Tower** 21 fl ozs/A
Target Weeds	**Initial Application**		**Sequential* Application(s)**	
Annual bluegrass *(Poa annua)*	**Late Summer to Non-overseeded Warm-season Turfgrass**		**Winter Application to Dormant Bermudagrass**	
	Pendulum AquaCap, **Pendulum 3.3 EC**, or **Pendulum 2G** plus **Tower** 21 to 32 fl ozs/A		**Tower** 21 to 32 fl ozs/A plus glyphosate (see product's label for use rates)	

*Sequential applications should be applied at a 5-week to 8-week interval following the previous application.
**For efficacy on emerged doveweed, sequential applications must be tank mixed with a postemergence herbicide product labeled for doveweed control.
†Not labeled for control in California

Turfgrass - All Sites Other Than Golf Courses

Tower® herbicide may be used as part of a preemergence weed management program in select turfgrass use sites including:

- Sod farms
- Grounds or lawns around industrial or commercial establishments (including military, institutions, campuses, parks, airports, roadsides, houses of worship, cemeteries)
- Recreation and park areas (including picnic grounds)
- Maintained athletic and sports fields
- Residential settings (maintained turfgrass in home lawns, common areas of multifamily dwellings or developments)
- Schoolyards and playgrounds
- Naturalized grass areas

Apply **Tower** as directed for preemergence control or suppression of weeds listed in **Table 14**.

Application Instructions

Apply **Tower** with ground equipment in a minimum spray volume of 10 gallons water per acre. **Tower** may also be applied through ground equipment containing spray injection systems in a minimum spray volume of 5 gallons water per acre.

Tower is a preemergence herbicide therefore all applications must be made before weed seed germination.

NOTE: Spring applications can be made when soil temperature is 55º F or higher. If application is made before soil temperature reaches 55º F, injury may occur.

Tower may be applied in a single application or sequential applications. **DO NOT** apply more than 64 fluid ounces (3 lbs ai) of **Tower** per acre per year.

For extended weed control, sequential applications of **Tower** can be made 5 to 8 weeks between applications. **Tower** may be applied in a sequential use program with other herbicides that control emerged weeds in turfgrass. Refer to **Table 13** for special instructions.

Tower must be watered into the soil with rainfall or irrigation equivalent to 1/4 inch to 1/2 inch of rainfall within 24 hours after application. If **Tower** is not activated by rainfall or irrigation, erratic weed control may result.

Weed control may be reduced when **Tower** is applied to turfgrass stands under conditions of heavy thatch.

Apply **Tower** to warm-season turfgrass species as described in **Table 11**. Follow all instructions, restrictions, and limitations listed in **Table 12 (a**, **b)**. Apply **Tower** at use rates only as directed on listed turfgrass species. To the extent of applicable law, the user assumes all risk with application of **Tower** to any other turfgrass species not listed as tolerant in **Table 11**. See the **Plant Tolerance and Phytotoxicity Notice** section for more information.

Table 11. Tolerant Turfgrass Species to Applications of Tower

Species	Tower Use Rate/Range (fl ozs/A)
Warm-season Turfgrass	
Bermudagrass, common or seeded	21 to 32
Bermudagrass, hybrid	21 to 32
Centipedegrass†	21 to 32
Kikuyugrass†	21 to 32
St. Augustinegrass	21 to 32
Seashore paspalum†	21 to 32
Zoysiagrass†	21 to 32
† Not labeled for use in California	

Table 12a. Specific Instructions and Restrictions for Specific Turfgrass Species

Turfgrass Use Site	Application Instructions
Warm-season turfgrass	• Apply **Tower® herbicide** to **actively growing** warm-season turfgrass when soil temperature is 55º F or higher. • Apply **Tower** only to dense, uniform and well-established stands of warm-season turfgrass. • Avoid making applications of **Tower** to turfgrass stands under stress or injury may occur. Allow turfgrass to recover before making a **Tower** application. **Application Restrictions** • **DO NOT** apply **Tower** to turfgrass within 2 weeks following mechanical disturbance including core cultivation or verticutting. • **DO NOT** apply **Tower** to turfgrass where annual bluegrass *(Poa annua)* or roughstalk bluegrass is part of the stand. **Tower** will injure, thin and discolor both seedling and established annual and roughstalk bluegrasses.
Overseeded warm-season turfgrass	• Apply **Tower** to aid in removal of cool-season turfgrass used to overseed warm-season turfgrass. Apply only when soil temperature is above 55º F and warm-season turfgrass is actively growing. • Delay overseeding with cool-season turfgrass species for at least six (6) weeks following the last **Tower** application. • Application of a nitrogen-containing fertilizer at or soon after a **Tower** application will minimize delay in spring green-up. **Application Restrictions** • **DO NOT** use **Tower** on desirable winter overseeded turfgrass species including, but not limited to, perennial ryegrass, creeping bentgrass or roughstalk bluegrass as discoloration/yellowing and/or stand reduction can occur.
Sprigging warm-season turfgrass	• Delay **Tower** applications for at least one (1) month after sprigging or until sprigs are successfully rooted. • Following a **Tower** application, delay sprigging turfgrass into treated area for one (1) month.
Dormant warm-season turfgrass	• **Tower** can be tank mixed with glyphosate or other postemergence herbicides for application to dormant, non-overseeded turfgrass stands.

Table 12b. Instructions and Restrictions for Specific Turfgrass Use Sites

Turfgrass Use Site	Application Instructions
Sod establishment	• Application of **Tower® herbicide** to newly sodded areas must be delayed until the turfgrass root system is well established and the turfgrass has been mowed at least two (2) times.
Re-seeding in turfgrass establishment	• Delay re-seeding of treated turfgrass for at least six (6) weeks following the last **Tower** application.
Newly planted areas (new seedings)	• **DO NOT** apply **Tower** to newly planted areas until the turfgrass has filled in and has been mowed at least four (4) times.
Naturalized areas	• **Tower** may be used to control weeds in naturalized grass areas on species listed in **Table 8**. Some species may have a reduction or elimination of seedheads. • **Tower** may be used to control weeds in naturalized wildflower and/or ornamental areas on plants listed in **Table 5**.
Industrial (unimproved) turfgrass	• **Tower** will control weeds that germinate in established grass in rights-of-way, roadsides, construction sites, parks, substations, lots, or similar areas. Industrial or unimproved turfgrass areas may contain weeds not present on the **Tower** label and may require tank mix partners to expand the spectrum of weed control.
Residential turfgrass	**Application Restrictions** • **DO NOT** apply **Tower** to turfgrass within 2 weeks after mechanical disturbance such as core cultivation and verticutting.

Turfgrass Tank Mixes

Tower® herbicide may be tank mixed with the following turfgrass herbicides including, but not limited to:

- **Basagran® T&O herbicide**
- **Drive® XLR8 herbicide**
- **Pendulum® AquaCap™ herbicide**
- **Pendulum® 3.3 EC herbicide**
- glyphosate

When tank mixing with **Pendulum AquaCap**:

1. Add **Pendulum AquaCap** to the partially filled spray tank, while agitating.
2. Add **Tower**.
3. Fill the remainder of the spray tank with water.

BASF recommends testing **Tower** tank mixes on a small portion of the target turfgrass to determine if damage is likely to occur. Consult your local BASF dealer regarding local tank mix options.

Table 13. Special Instructions for Control of Key Weeds in Turfgrass

BASF recommends a sequential herbicide application program including **Tower** for control of the following key weeds in turfgrass. Begin weed management programs before seasonal germination of weed seeds.

Target Weeds	Initial Application		Sequential* Application(s)	
Goosegrass	**Late Winter to Early Spring**	**Spring** (soil temperature at 55° F or higher)	**First Application**	**Second Application**
	Pendulum AquaCap, **Pendulum 3.3 EC**, or **Pendulum® 2G herbicide** (or other preemergence herbicide, see product labels for use rates)	**Tower** 32 fl ozs/A	**Tower** 32 fl ozs/A	—
	Pendulum AquaCap, **Pendulum 3.3 EC**, or **Pendulum 2G** (or other preemergence herbicide, see product labels for use rates)	**Pendulum AquaCap**, **Pendulum 3.3 EC**, or **Pendulum 2G** plus **Tower** 21 fl ozs/A	**Tower** 21 fl ozs/A	**Tower** 21 fl ozs/A
Target Weeds	**Initial Application**		**Sequential* Application(s)**	
Annual sedges† Kyllinga† Nutsedge	**Spring** (soil temperature at 55° F or higher)		**First Application**	**Second Application**
	Tower 32 fl ozs/A		**Tower** 32 fl ozs/A	—
	Tower 21 fl ozs/A		**Tower** 21 fl ozs/A	**Tower** 21 fl ozs/A

(continued)

Table 13. Special Instructions for Control of Key Weeds in Turfgrass *(continued)*

Target Weeds	Initial Application		Sequential* Application(s)	
Doveweed†	**Late Winter to Early Spring**	**Spring** (soil temperature at 55° F or higher)	**First Application**	**Second Application**
	Pendulum® AquaCap™ herbicide, **Pendulum® 3.3 EC herbicide**, or **Pendulum® 2G herbicide** (or other preemergence herbicide, see product labels for use rates)	**Tower® herbicide** 32 fl ozs/A	**Tower** 32 fl ozs/A	—
	Pendulum AquaCap, **Pendulum 3.3 EC**, or **Pendulum 2G** (or other preemergence herbicide, see product labels for use rates)	**Pendulum AquaCap**, **Pendulum 3.3 EC**, or **Pendulum 2G** plus **Tower** 21 fl ozs/A	**Tower** 21 fl ozs/A plus postemergence herbicide**	**Tower** 21 fl ozs/A plus postemergence herbicide**
	Pendulum AquaCap, **Pendulum 3.3 EC**, or **Pendulum 2G** (or other preemergence herbicide, see product labels for use rates)	**Pendulum AquaCap**, **Pendulum 3.3 EC**, or **Pendulum 2G**	**Tower** 21 fl ozs/A plus postemergence herbicide**	**Tower** 21 fl ozs/A plus postemergence herbicide** **Repeat treatment again in 5 to 8 weeks** to provide control until frost.
Target Weeds	**Initial Application**		**Sequential* Application(s)**	
Spurge and other warm-season broadleaf species	**Late Winter to Early Spring**	**Spring** (soil temperature at 55° F or higher)	**First Application**	**Second Application**
	Pendulum AquaCap, **Pendulum 3.3 EC**, or **Pendulum 2G** (or other preemergence herbicide, see product labels for use rates)	**Tower** 32 fl ozs/A	**Tower** 32 fl ozs/A	—
	Pendulum AquaCap, **Pendulum 3.3 EC**, or **Pendulum 2G** (or other preemergence herbicide, see product labels for use rates)	**Pendulum AquaCap**, **Pendulum 3.3 EC**, or **Pendulum 2G** plus **Tower** 21 fl ozs/A	**Tower** 21 fl ozs/A	**Tower** 21 fl ozs/A

(continued)

Table 13. Special Instructions for Control of Key Weeds in Turfgrass *(continued)*

Target Weeds	Initial Application	Sequential* Application(s)
	Late Summer to Non-overseeded Warm-season Turfgrass	**Winter Application to Dormant Bermudagrass**
Annual bluegrass *(Poa annua)*	**Pendulum® AquaCap™ herbicide**, **Pendulum® 3.3 EC herbicide**, or **Pendulum® 2G herbicide** plus **Tower® herbicide** 21 to 32 fl ozs/A	**Tower** 21 to 32 fl ozs/A plus glyphosate (see product's label for use rates)

*Sequential applications should be applied at a 5-week to 8-week interval following the previous application.
**For efficacy on emerged doveweed, sequential applications must be tank mixed with a postemergence herbicide product labeled for doveweed control.
†Not labeled for control in California

Table 14. Weeds Controlled

Common Name	Scientific Name
Grass Weeds	
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 faberi*
Foxtail, green	*Setaria viridis*
Foxtail, yellow	*Setaria pumila* spp. *pumila*
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	*Lolium multiflorum*
Sandbur, field*	*Cenchrus incertus*
Shattercane*	*Sorghum bicolor*
Signalgrass, broadleaf*	*Brachiaria platyphylla*
Witchgrass	*Panicum capillare*
Broadleaf Weeds	
Amaranth, Palmer	*Amaranthus palmeri*
Amaranth, Powell	*Amaranthus powellii*
Beggarweed, Florida*	*Desmodium tortuosum*
Bittercress†	*Cardamine* spp.
Carpetweed	*Mollugo verticillata*
Chamomile, mayweed	*Anthemis cotula*
Doveweed†	*Murdannia nudiflora*

(continued)

Table 14. Weeds Controlled *(continued)*

Common Name	Scientific Name
Broadleaf Weeds *(continued)*	
Eclipta*	*Eclipta alba* *E. prostrata*
Galinsoga, hairy*†	*Galinsoga ciliata*
Galinsoga, smallflower*†	*Galinsoga parviflora*
Groundsel, common†	*Senecio vulgaris*
Lambsquarters, common*	*Chenopodium album*
Liverwort†	*Marchantia polymorpha*
Nightshade, black	*Solanum nigrum*
Nightshade, cutleaf	*Solanum triflorum*
Nightshade, Eastern black	*Solanum ptycanthum*
Nightshade, hairy	*Solanum sarrachoides*
Pearlwort†	*Sagina procumbens* *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*
Shepherd's purse	*Capsella bursa-pastoris*
Spurge, nodding	*Euphorbia nutans*
Spurge, spotted	*Euphorbia maculata*
Waterhemp, common	*Amaranthus rudis*
Waterhemp, tall	*Amaranthus tuberculatus*
Willowherb, Northern†	*Epilobium ciliatum*
Sedges	
Flatsedge, rice	*Cyperus iria*
Kyllinga†	*Kyllinga* spp.
Nutsedge, yellow	*Cyperus esculentus*
Sedge, annual†	*Cyperus compressus*

* Partial control or suppression only of the weed
† Not labeled for control in California

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BASF Corporation
26 Davis Drive
Research Triangle Park, NC 27709

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