

# **IRRIGATION SYSTEM**

## General Information

### DIRECTIONS FOR USE

BRANDT UMBRELLA is a spreader/sticker designed to increase the efficiency of various pesticides. It forms a rainfast film which resists weathering and enhances the efficacy of pesticides. BRANDT UMBRELLA may be used on agricultural, forestry, turf and ornamental, industrial, structural and non-cropland sites. NOT FOR AQUATIC USE IN WASHINGTON.

Read and follow the precautions, restrictions and recommendations on the labels of pesticides used with BRANDT UMBRELLA. Use according to the most restrictive label directions for each product in any tank mix.

COMPATIBILITY: BRANDT UMBRELLA is compatible with most pesticides. However, if the desired combination has not been previously used, a compatibility test is recommended.

MIXING: Shake well before using. Fill spray tank  $\frac{1}{2}$  full of water and begin agitation. Add the recommended amount of BRANDT UMBRELLA. Add products as directed by label or in the following sequence and continue filling tank: (1) Dry flowables or water dispersing granules, (2) Wettable powders, (3) Flowables, (4) Solutions, (5) Emulsifiable concentrates. Continue agitation until spray solution is completely mixed. Continuous agitation of finished spray is recommended. If spray solution has been allowed to stand, thoroughly agitate and remix before application.

RECOMMENDATIONS: Specific use rates will vary with conditions of application such as water hardness, application method, equipment, spray droplet size, condition of foliage, etc. Smooth, waxy, or hairy foliage will require higher rates. Also, higher rates than those below may be used if recommended by pesticide labeling. Follow pesticide label directions. However, do not add this product at a rate which exceeds 5% of the finished spray volume.

## Limitations, Restrictions, and Exceptions

FOR CHEMIGATION APPLICATIONS (Washington State Only)

Irrigation Systems: Use Brandt Umbrella at 4 to 16 fl. oz. per acre through any type of chemigation system. Always use backflow prevention valve (check-valve) when injecting into irrigation systems.

#### GENERAL DIRECTIONS FOR CHEMIGATION

- Calibrate the irrigation and injection system before applying the product. Calibrate the injection pump with the irrigation system fully charged at the desired operating pressure. If you have questions about calibration, you should contact state extension specialists, equipment manufacturers, or other experts.
- A person knowledgeable of the chemigation system and responsible for its operation, or under the supervision of the responsible person, shall start up, operate, or shut down the system and make necessary adjustments should the need arise.
- Check the irrigation system to insure uniform application of water. The chemigation system, which is inclusive of the irrigation equipment and chemigation apparatus, must be properly maintained.
- Do not apply when system connections or fittings leak or when emitters or sprinkler heads are not properly functioning.
- The injection unit and supply tank should be equipped with an in-line strainer with a 100-mesh or larger screen positioned between the supply tank and the injection pump. Dispose of any residue in accordance with Federal or State laws.
- The irrigation system must contain a functional check valve, vacuum relief valve, inspection port, and low-pressure drain that are appropriately sized and located on the irrigation mainline to prevent water source contamination from backflow. The injection line must contain a functional, automatic, quickclosing check valve to prevent the flow of fluid back toward the injection pump. The injection line must also contain a functional, normally closed solenoid-operated valve located on the intake side of the injection pump and connected to the system interlock to prevent fluid from being withdrawn from the supply tank when the irrigation system is either automatically or manually shutdown. The system must contain functional interlocking controls to automatically shut off the injection pump when the water pump motor stops. The irrigation mainline or water pump must include a functional pressure switch that will stop the water pump motor when the water pressure decreases to the point where pesticide distribution is adversely affected. Systems must use a metering pump, such as a positive displacement injection pump (e.g., diaphragm or piston pump), effectively designed and constructed of materials that

- are compatible with pesticides and capable of being fitted with a system interlock.
- Add specified amount of this product to the water in the supply tank. Application should be in sufficient water and of sufficient duration to apply the recommended rate evenly.
  - Start the water pump and irrigation system, allowing the desired pressure to be achieved throughout the irrigation system before starting the injection process.
  - Apply continuously for the duration of the application period.
  - Do not allow irrigation water to collect or run-off during chemigation and pose a hazard to workers, bystanders, livestock, wells, or adjoining crops.
  - Once the application is completed, thoroughly flush the entire irrigation and injection system with untreated water before turning off the irrigation system. To ensure the lines are flushed and free of this product, a dye indicator may be injected into the lines to mark the end of the application period.
  - Wear label prescribed personal protective equipment when making adjustments or repairs on the chemigation system when this product is in the irrigation water or residue may be present.
  - Do not apply when windspeed favors drift beyond the area intended for treatment. Do not apply when system connection or fittings leak, when sprinkler heads or emitters do not provide uniform distribution or when lines containing the product must be dismantled and drained.

#### Using Water from Public Water Systems

Public water system means a system for the provision to the public of piped water for human consumption if such system has at least 15 service connections or regularly serves an average of at least 25 individuals daily at least 60 days out of the year. Chemigation systems connected to public water systems must contain a functional, reduced-pressure zone (RPZ), backflow preventer or the functional equivalent in the water supply line upstream from the point of adjuvant (pesticide) introduction. As an option to the RPZ, the water from the public water system should be discharged into a reservoir tank prior to adjuvant (pesticide) introduction. There shall be a complete physical break (air gap) between the flow outlet end of the fill pipe and the top or overflow rim of the reservoir tank of at least twice the inside diameter of the fill pipe.

#### Additional Operating Instructions for Chemigation

Do not connect an irrigation system (including greenhouse systems) used for adjuvant (pesticide) application to a public water system unless the label-prescribed

safety devices for public water supplies are in place.

Any alternatives to the above required safety devices must conform to the “List of EPA-approved Alternative Devices.”

Refer to the American Society of Agricultural Engineer's Engineering Practice 409.1 for more information about backflow safety devices.

Method

[Irrigation](#)

Timings

[N.A.](#)