

FOR CONTROL AND/OR SUPPRESSION OF CERTAIN WEEDS IN ALFALFA, ARTICHOKE, ASPARAGUS, HEAD AND STEM BRASSICA, BUSHBERRIES, CACTUS (PRICKLY PEAR), CANEBERRIES, CELERY, CITRUS, CLOVER, COTTON, CUCURBIT VEGETABLES, DRY BEANS, FIELD CORN, FIELD PEAS, FLAX, FRUITING VEGETABLES, GARLIC, GRAPE, HOPS, LENTILS, MINT, NUT TREES, ONION (DRY BULB), OLIVE, PEANUT, POME FRUIT, POMEGRANATE, POTATO, SOYBEAN, STONE FRUIT, STRAWBERRY, SUGARCANE, SUNFLOWER AND SAFFLOWER, SWEET POTATO, WHEAT, NON-BEARING FRUIT TREES, FALLOW LAND AND TO MAINTAIN BARE GROUND ON NON-CROP AREAS OF FARMS, ORCHARDS AND VINEYARDS.

Contains flumioxazin,	the active ingre	dient used in Val	lor® SX and Ch	lateau®.

ACTIVE INGREDIENT:	By Wt.
Flumioxazin*	51.0%
OTHER INGREDIENTS:	49.0%
TOTAL:	100.0%

\*2-[7-flouro-3,4-dihydro-3-oxo-4-(2-propynyl)-2*H*-1,4-benzoxazin-6-yl]-4,5,6,7-tetrahydro-1*H*-isoindole-1,3(2*H*)-dione Tacoma Ag Flumi 51 is a water dispersible granule containing 51% active ingredient.

# Keep Out of Reach of Children CAUTION

	FIRST AID
If inhaled:	Move person to fresh air.
	• If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth if possible.
	Call a poison control center or doctor for further treatment advice.
lf on skin or	Take off contaminated clothing.
clothing:	Rinse skin immediately with plenty of water for 15-20 minutes.
	Call a poison control center or doctor for treatment advice.
If in eyes:	Hold eye open and rinse slowly and gently with water for 15-20 minutes.
	Remove contact lenses, if present, after the first 5 minutes, then continue rinsing.
	Call a poison control center or doctor for treatment advice.
If swallowed:	Call a poison control center or doctor immediately for treatment advice.
	Have person sip a glass of water if able to swallow.
	Do not induce vomiting unless told to by a poison control center or doctor.
	Do not give anything to an unconscious person.
	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 1-800-424-9300 for emergency medical treatment information.

See label booklet for additional Precautionary Statements and Directions for Use. For Chemical Spill, Leak, Fire, or Exposure, Call: CHEMTREC 1-800-424-9300

Tacoma Ag Flumi 51 is not manufactured, or distributed by Valent U.S.A. Corporation, seller of Valor and Chateau.

EPA Reg. No. 83520-50

Manufactured for: Tacoma Ag, LLC, 111 Martin Road, Fulton, MS 38843

#### PRECAUTIONARY STATEMENTS

### HAZARDS TO HUMANS AND DOMESTIC ANIMALS CAUTION

Harmful if inhaled or absorbed through the skin. Causes moderate eye irritation. Avoid breathing dust and spray mist. Avoid contact with skin, eyes or clothing.

#### PERSONAL PROTECTIVE EQUIPMENT (PPE)

**Applicators, and other handlers must wear:** Long-sleeved shirt and long pants, chemical-resistant gloves made of any waterproof material such as polyethylene or polyvinyl chloride, shoes and socks. **For aerial application to sugarcane, mixer/loaders must also wear:** coveralls, chemical resistant apron and chemical resistant boots.

For aerial application to artichoke; field peas; flax; lentils; safflower; sunflower and wheat, mixer/loaders must also wear: Wear a minimum of a NIOSH approved filtering face piece respirator with any N filter (TC-84A). You can also use other NIOSH approved particulate respirators that offer more protection, such as a half face or full face respirator with any filter or a powered air purifying respirator with an HE filter. For more information about these options, see www.epa.gov/pesticide-respirators.

For ground boom application to cactus (prickly pear); olive and pomegranate, mixer/loaders must also wear: Wear a minimum of a NIOSH approved filtering face piece respirator with any N filter (TC-84A). You can also use other NIOSH approved particulate respirators that offer more protection, such as a half face or full face respirator with any filter or a powered air purifying respirator with an HE filter. For more information about these options, see www.epa.gov/pesticide-respirators.

Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables exist, use detergent and hot water. Keep and wash PPE separately from other laundry.

#### **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**

This product is toxic to non-target plants and aquatic invertebrates. Do not apply directly to water, to areas where surface water is present, or to intertidal areas below the mean high water mark. Drift or runoff may be hazardous to non-target plants and aquatic organisms in neighboring areas. Do not apply where runoff is likely to occur. Do not apply when weather conditions favor drift from treated areas. Do not contaminate water when disposing of equipment washwaters.

This pesticide is toxic to plants and must be used strictly in accordance with the drift and run-off precautions on this label in order to minimize off-site exposures.

Under some conditions this product may have a potential to run-off to surface water or adjacent land. Where possible, use methods which reduce soil erosion, such as no till, limited till and contour plowing; these methods also reduce pesticide run-off. Use of vegetation filter strips along rivers, creeks, streams, wetlands or on the downhill side of fields where run-off could occur will minimize water run-off and is recommended.

#### PHYSICAL OR CHEMICAL HAZARDS

Do not mix or allow coming in contact with oxidizing and reducing agents. A hazardous chemical reaction may occur.

#### **DIRECTIONS FOR USE**

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

### READ ENTIRE LABEL. USE STRICTLY IN ACCORDANCE WITH LABEL PRECAUTIONARY STATEMENTS AND DIRECTIONS, AND WITH APPLICABLE STATE AND FEDERAL REGULATIONS.

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.

#### 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 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, chemical-resistant gloves made of waterproof material, shoes plus socks.

#### NON-AGRICULTURAL 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, forest, nurseries or greenhouses.

Keep all unprotected persons out of operating areas, or vicinity where there may be drift. Do not enter or allow others to enter treated areas until sprays have dried.

#### **TANK MIXES**

NOTICE: Tank mixing or use of this product with any other product which is not specifically and expressly authorized by the label shall be the exclusive risk of user, applicator and/or application advisor, to the extent allowed by applicable law.

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.

#### RESISTANCE MANAGEMENT

For resistance management, Tacoma Ag Flumi 51 is a Group 14 herbicide. Any weed population may contain or develop plants naturally resistant to Tacoma Ag Flumi 51 and other Group 14 herbicides. The resistant biotypes may dominate the weed population if these herbicides are used repeatedly in the same field. Appropriate resistance-management strategies should be followed.

To delay herbicide resistance take one or more of the following steps:

- Rotate the use of Tacoma Ag Flumi 51 or other Group 14 herbicides within a growing season sequence or among growing seasons with different herbicide groups that control the same weeds in a field.
- Use tank mixtures from a different group if such use is permitted; where information on resistance in target weeds species is available, use the less resistance-prone partner at a rate that will control the target weed(s) equally as well as the more resistance-prone partner. Consult your local extension service or certified crop advisor if you are unsure as to which active ingredient is currently less prone to resistance.
- Adopt an integrated weed-management program for herbicide use that includes scouting and uses historical information related to herbicide use and crop rotation, and that considers tillage (or other mechanical control methods), cultural (e.g., higher crop seeding rates; precision fertilizer application method and timing to favor the crop and not the weeds), biological (weed-competitive crops or varieties) and other management practices.
- Scout after herbicide application to monitor weed populations for early signs of resistance development. Indicators of possible herbicide resistance include: (1) failure to control a weed species normally controlled by the herbicide at the dose applied, especially if control is achieved on adjacent weeds; (2) a spreading patch of non-controlled plants of a particular weed species; (3) surviving plants mixed with controlled individuals of the same species. If resistance is suspected, prevent weed seed production in the affected area by an alternative herbicide from a different group or by a mechanical method such as hoeing or tillage. Prevent movement of resistant weed seeds to other fields by cleaning harvesting and tillage equipment when moving between fields, and planting clean seed.
- If a weed pest population continues to progress after treatment with this product, discontinue use of this
  product, and switch to another management strategy or herbicide with a different mode of action, if
  available.
- Contact your local extension specialist or certified crop advisors for additional pesticide resistance-management and/or integrated weed-management recommendations for specific crops and weed biotypes.
- For further information or to report suspected resistance, contact Tacoma Ag, LLC at Tacomaag.com

#### **USE INFORMATION**

#### Tacoma Ag Flumi 51 uses:

- Tacoma Ag Flumi 51 provides residual control of susceptible weeds.
- Tacoma Ag Flumi 51 provides additional burndown activity when used as part of a burndown program.
- Tacoma Ag Flumi 51 can be applied as part of a fall burndown program for control of susceptible winter annuals.
- Tacoma Ag Flumi 51 can be applied with a hooded or shielded sprayer, as well as part of a layby
  application, in selected crops for postemergence weed control as well as residual control of susceptible
  weeds.
- Tacoma Ag Flumi 51 can be used on farms, orchards and vineyards for non-selective vegetation control to maintain bare ground non-crop areas that must be kept weed free.
- 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. Tacoma Ag Flumi 51, when applied according to label use directions, will control the weeds claimed in crop specific use directions. This label makes no claims concerning control of other weed species.

Tacoma Ag Flumi 51 Rate Summary			
OZ. of Tacoma Ag Flumi 51	Pounds of Flumioxazin		
2	0.064		
4	0.128		
6	0.191		
8	0.255		
12	0.383		
24	0.765		

#### AVOIDING SPRAY DRIFT AT THE APPLICATION SITE IS THE RESPONSIBILITY OF THE APPLICATOR.

The interaction of many equipment and weather related factors determine the potential for spray drift. The applicator is responsible for considering all of these factors when making decisions. Where states have more stringent regulations, they must be observed.

#### **RESTRICTIONS**

- Do not apply this product when weather conditions favor spray drift from treated areas.
- Do not apply during low-level inversion conditions, including fog.
- Do not apply to frozen snow covered soil.
- Do not apply to farm alleys or roads where traffic may result in treated dust settling onto crops or other desirable vegetation.
- Do not apply within 300 yards of non-dormant pears.
- Do not apply to powdery soils or soils that are susceptible to wind displacement unless irrigation can be applied immediately after application.

#### **PRECAUTIONS**

- When applying by air, observe drift management restrictions and precautions listed under "AERIAL APPLICATION".
- Mechanical incorporation into the soil will reduce residual weed control.
- Make post directed and layby applications of Tacoma Ag Flumi 51 only to healthy growing crops.

Do not use spray equipment used to apply Tacoma Ag Flumi 51 to apply other materials to any crop foliage, unless the proper cleanout procedures are followed. See "SPRAYER CLEANUP" for more information.

#### ENVIRONMENTAL CONDITIONS AND BIOLOGICAL PERFORMANCE

**Preemergence Application (Conventional Tillage)** 

**Important:** Crop injury may occur from applications made to poorly drained soils and/or applications made under cool, wet conditions. Risk of crop injury can be minimized by using on well drained soils, planting at least 1.5 inches deep, using high quality seed and completely covering seeds with soil prior to preemergence applications. Treated soil that is splashed onto newly emerged crops may result in temporary crop injury.

Moisture is necessary to activate Tacoma Ag Flumi 51 in soil for residual weed control. Dry weather following applications of Tacoma Ag Flumi 51 may reduce effectiveness. However, when adequate moisture is received after dry conditions, Tacoma Ag Flumi 51 will control susceptible germinating weeds. Tacoma Ag Flumi 51 may not control weeds that germinate after application but before an activating rainfall/irrigation or weeds that germinate through cracks resulting from dry soil.

When adequate moisture is not received after a Tacoma Ag Flumi 51 application, weed control may be improved by irrigation with at least ¼ inch of water. If emerged weeds are controlled by cultivation, residual weed control will be reduced.

#### **Burndown Application**

For best results, apply Tacoma Ag Flumi 51 as part of a burndown program to actively growing weeds. Applying Tacoma Ag Flumi 51 under conditions that do not promote active weed growth will reduce herbicide effectiveness. Do not apply Tacoma Ag Flumi 51 when weeds are under stress due to drought, excessive water, extremes in temperature, disease or low humidity. Weeds under stress tend to become less susceptible to herbicidal action. Tacoma Ag Flumi 51 is most effective when applied under warm sunny conditions.

Reduced residual weed control may occur when burndown applications are made to fields where heavy crop and/or weed residue exist.

#### **Postemergence Application**

Tacoma Ag Flumi 51 may only be applied to healthy crops labeled for postemergence use. Do not apply Tacoma Ag Flumi 51 to crops that have been weakened by disease, drought, flooding, excessive fertilization, soil salts, previously applied pesticides, nematodes, insects or winter injury.

#### Rainfastness

Tacoma Ag Flumi 51 is rainfast one hour after application. Applications must not be made if rain is expected within one hour of application or postemergence efficacy may be reduced.

#### **Soil Characteristics**

Application of Tacoma Ag Flumi 51 to soils with high organic matter and/or high clay content may require higher dosages than soils with low organic matter and/or low clay content. Application to cloddy seedbeds can result in reduced weed control.

#### HERBICIDE RATE

### Residual Weed Control (Including Preemergence Applications or Applications as Part of a Fall or Spring Burndown and Fallow Seedbed Program)

Based upon soil characteristics (organic matter content and texture), the most difficult to control weed species being targeted, and the crop being grown, select the proper Tacoma Ag Flumi 51 dosage from the rate range tables contained in this label.

**CARRIER VOLUME AND SPRAY PRESSURE** (Ground Equipment only. See Information for Aerial Equipment under "AERIAL APPLICATION").

#### **Preemergence Application (Conventional Tillage)**

To ensure uniform coverage, use 10 to 30 gals. of spray solution per acre for conventional tillage applications. Nozzle selection must meet manufacturer's gallonage and pressure recommendations for preemergence herbicide application.

#### **Burndown Application (Prior to Crop Emergence)**

To ensure thorough coverage in burndown applications, use 15 to 60 gals. spray solution per acre. Use 20 to 60 gals. per acre if dense vegetation or heavy crop residue is present. Nozzle selection must meet manufacturer's gallonage and pressure recommendations for postemergence herbicide application. Do not use flood jet nozzles.

#### Postemergence Application (Emerged Crop)

Check use directions for specific crops in which Tacoma Ag Flumi 51 can be applied postemergence. To ensure thorough coverage in burndown applications, use a minimum of 15 gallons spray solution per

acre. Use a minimum of 20 gallons per acre if dense vegetation or heavy crop residue is present. Nozzle selection must meet manufacturer's gallonage and pressure recommendations for postemergence herbicide application.

#### **ADDITIVES**

#### **Burndown Application (Prior to Crop Emergence)**

Postemergence control of weeds from Tacoma Ag Flumi 51 tank mixes will require the addition of an agronomically approved adjuvant to the spray mixture. When an adjuvant is to be used with Tacoma Ag Flumi 51, Tacoma Ag, LLC recommends the use of a Chemical Producers and Distributors Association certified adjuvant. Either a crop oil concentrate or methylated seed oil which contains at least 15% emulsifiers and 80% oil or a non-ionic surfactant at 0.25% v/v, may be used when applying Tacoma Ag Flumi 51 as part of a burndown program. Some tank mix partners are formulated with sufficient adjuvants and do not require the addition of a crop oil concentrate, methylated seed oil or non-ionic surfactant when tank mixed with Tacoma Ag Flumi 51. The addition of a crop oil concentrate or methylated seed oil may increase the burndown activity on certain weeds such as cutleaf eveningprimrose and Carolina geranium. Verify mixing compatibility qualities by a jar test.

A spray grade nitrogen source (either ammonium sulfate at 2 to 2.5 lbs./A or a 28 to 32% nitrogen solution at 1 to 2 qts./A) may be added to the spray mixture along with either a crop oil concentrate, methylated seed oil or non-ionic surfactant to enhance weed control. The addition of a nitrogen source does not replace the need for a crop oil concentrate, a methylated seed oil or a non-ionic surfactant.

#### JAR TEST TO DETERMINE COMPATIBILITY OF ADJUVANTS AND TACOMA AG FLUMI 51

When using Tacoma Ag Flumi 51 and an adjuvant, such as in stale seed bed, layby, hooded/shielded or reduced tillage situations, perform a jar test before mixing commercial quantities of Tacoma Ag Flumi 51, when using Tacoma Ag Flumi 51 for the first time, when using new adjuvants or when a new water source is being used.

- 1. Add 1 pt. of the water to a quart jar. Use water from the same source and temperature as which will be used in the spray tank mixing operation.
- 2. Add 1 g of Tacoma Ag Flumi 51 to the quart jar for every 3 oz. of Tacoma Ag Flumi 51 per acre being applied (4 g if 12 oz./A is the desired Tacoma Ag Flumi 51 rate), gently mix until product goes into suspension.
- 3. Add 60 ml (4 Tbsps. or 2 fl. oz.) of the crop oil or methylated seed oil to the quart jar or 1 ml of non-ionic surfactant if it is being used in place of oil, gently mix.
- 4. If nitrogen is being used, add 16 ml (1 Tbsp. or 0.5 oz.) of the 28 to 32% nitrogen source to the quart jar. If ammonium sulfate is being used, add 19 g AMS to the quart jar in place of the 28 to 32% nitrogen.
- 5. Place cap on jar, invert 10 times, let stand for 15 minutes, evaluate.
- 6. An ideal tank mix combination will be uniform and free of suspended particles. If any of the following conditions are observed the choice of adjuvant must be questioned:
  - a. Layer of oil or globules on the mixture's surface.
  - b. Flocculation: fine particles in suspension or as a layer on the bottom of the jar.
  - c. Clabbering: thickening texture (coagulated) like gelatin.

#### SPRAYER PREPARATION

Before applying Tacoma Ag Flumi 51, start with clean, well maintained application equipment. The spray tank, as well as all hoses and booms, must be cleaned to ensure no residue from the previous spraying operation remains in the sprayer. Some pesticides, including but not limited to, the sulfonylurea and phenoxy herbicides, (i.e., chlorimuron and 2,4-D respectively) are active at very small amounts and can cause crop injury when applied to susceptible crops. The spray equipment must be cleaned according to the manufacturer's directions for the last product used before the equipment is used to apply Tacoma Ag Flumi 51. If two or more products were tank mixed prior to Tacoma Ag Flumi 51 application, follow the most restrictive cleanup procedure.

#### **MIXING INSTRUCTIONS**

- 1. Fill clean spray tank 1/2 to 2/3 of desired level with clean water.
- 2. If a drift retardant is to be used, add 10 lbs. of spray grade ammonium sulfate per 100 gals. of spray solution.
- 3. To ensure a uniform spray mixture, pre-slurry the required amount of Tacoma Ag Flumi 51 with water prior to addition to the spray tank. Use a minimum of 1 gal. of water per 10 oz. of Tacoma Ag Flumi 51.
- 4. While agitating, slowly add the pre-slurried Tacoma Ag Flumi 51 to the spray tank. Ensure sufficient agitation to create a rippling or rolling action on the water surface.
- 5. If tank mixing Tacoma Ag Flumi 51 with other labeled herbicides, add water soluble bags first, followed by dry formulations, flowables, emulsifiable concentrates and then solutions. Prepare no more spray mixture than is required for the immediate spray operation.
- 6. Add any required adjuvants.
- 7. Fill spray tank to desired level with water. Continue agitation until all spray solution has been applied.
- 8. Mix only the amount of spray solution that can be applied the day of mixing. Apply Tacoma Ag Flumi 51 within 6 hours of mixing.

#### SPRAYER CLEANUP

Spray equipment, including mixing vessels and nurse tanks, must be cleaned each day following Tacoma Ag Flumi 51 application. After Tacoma Ag Flumi 51 is applied, the following steps must be used to clean the spray equipment:

- 1. Completely drain the spray tank, rinse the sprayer thoroughly, including the inside and outside of the tank and all in-line screens.
- 2. Fill the spray tank with clean water and flush all hoses, booms, screens and nozzles.
- 3. Top off tank, add 1 gallon of 3% household ammonia (or equivalent) for every 100 gallons of water, circulate through sprayer for 5 minutes, and then flush all hoses, booms, screens and nozzles for a minimum of 15 minutes. If diaphragms are being used on the spray boom, loosen diaphragms before flushing the spray system, allowing cleaning solution to the spray through the open diaphragm. If spray lines have any end caps, they must be loosened before flushing the system, allowing cleaning solution to spray through the loosened caps. To enhance removal of Tacoma Ag Flumi 51 from the spray system, add a tank cleaner in place of ammonia and allow the cleaning solution to remain in the pressurized spray system (spray tank, hoses and boom) overnight before flushing the system for a minimum of 15 minutes.

- 4. Drain tank completely.
- 5. Add enough clean water to the spray tank to allow all hoses, booms, screens and nozzles to be flushed for 2 minutes.
- 6. Remove all nozzles and screens and rinse them in clean water.

Thoroughly clean all spray equipment, including all tanks, hoses, booms, screens and nozzles, before it is used to apply postemergence pesticides. Equipment with Tacoma Ag Flumi 51 residue remaining in the system may result in crop injury to the subsequently treated crop.

#### **APPLICATION EQUIPMENT**

Use only application equipment that is clean and in good repair. Uniformly space nozzles on boom and frequently check for accuracy.

#### **BROADCAST APPLICATION**

Apply Tacoma Ag Flumi 51, and Tacoma Ag Flumi 51 tank mixes, with ground equipment using standard commercial sprayers equipped with flat fan or flood nozzles (preemergence applications only) designed to deliver the desired spray pressure and spray volume.

#### **BAND APPLICATION**

When banding, use proportionately less water and Tacoma Ag Flumi 51 per acre. The rate of Tacoma Ag Flumi 51 required per acre, when applied as a banded application, can be calculated with the following formula:

Amount Needed per Acre for Banded Application	=	Band Width in Inches Row Width in Inches	Х	Rate per Broadcast Acre
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#### **AERIAL APPLICATION**

Spray drift away from the site of application may cause damage to non-target vegetation. To minimize drift, apply the largest droplet size consistent with uniform coverage and satisfactory weed control. To obtain satisfactory application and avoid drift, the following restrictions must be observed:

- Do not apply during low-level inversion conditions (including fog), when winds are gusty or under other conditions that favor drift. Do not spray when wind velocity is less than 2 mph or more than 10 mph.
- Do not apply this product by air within 40 ft. of non-target plants including non-target crops.
- Do not apply this product by air within 100 ft. of emerged cotton crops.
- Do not apply this product by air within 40 ft. of streams, wetlands, marshes, ponds, lakes and reservoirs.
- Carrier Volume and Spray Pressure: When used as part of a burndown weed control program, apply Tacoma Ag Flumi 51 in 7 to 10 gals. of water per acre. Application at less than 7 gals. per acre may provide inadequate control. When used for preemergence weed control, apply Tacoma Ag Flumi 51 in 5 to 10 gals. of water per acre. The higher gallonage applications generally afford more consistent weed control. 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.

- Nozzle Selection and Orientation: Formation of very small drops may be minimized by appropriate
  nozzle selection, by orienting nozzles away from the air stream as much as possible and by avoiding
  excessive spray pressure. Use nozzles that produce flat or hollow cone spray patterns. Use non-drip
  type nozzles, such as diaphragm type nozzles, to avoid unwanted discharge of spray solution. The
  nozzles must be directed toward the rear of the aircraft, at an angle between 0 and 15° downward. Do
  not place nozzles on the outer 25% of the wings or rotors.
- Adjuvants and Drift Control Additives: Refer to tank mix partner's label for adjuvant recommendation. Drift control additives may be used. When a drift control additive is used, read and carefully observe the cautionary statements and all other information appearing on the additive label.

#### **CHEMIGATION**

Follow all label directions for crops regarding rates, timing of application, special instructions and precautions. Refer to the onion (dry bulb) and potatoes section of this label for chemigation instructions for these crops.

Apply this product only through center pivot systems. End guns must be turned off due to uneven application. Do not apply this product through any other type of irrigation system.

Crop injury, lack of efficacy or illegal pesticide residues in the crop can result from non-uniform distribution of treated water.

The system must be properly calibrated (with water only) to ensure that the amount of Tacoma Ag Flumi 51 applied corresponds to the specified rate.

Apply Tacoma Ag Flumi 51 in ½ to ¾ inches of water during the first sprinkler set. Allow time for all lines to flush the herbicide through all nozzles before turning off irrigation water. To ensure the lines are flushed and free of remaining herbicide, a dye indicator may be injected into the lines to mark the end of the application period. Once chemigation has begun, the run must be completed to ensure no product is left in system.

If you have any questions about calibration, contact your State Extension Service Specialist, equipment manufacturers or other experts.

#### **Chemigation Restrictions**

- 1. Do not connect an irrigation system (including greenhouse systems) used for pesticide application to a public water system unless the pesticide label-prescribed safety devices for public water systems are in place.
- 2. A person knowledgeable of the chemigation system and responsible for its operation or under the supervision of the responsible person, shall shut the system down and make necessary adjustments should the need arise.
- 3. The system must be free of leaks and clogged nozzles.
- 4. The pesticide must be supplied continuously for the duration of the aqueous application. An uneven application may cause injury to the crop or poor weed control.
- 5. Agitation must be maintained in the nurse tank.
- 6. The sprinkler chemigation system must contain a functional check valve, vacuum relief valve and low pressure drain appropriately located on the irrigation pipeline to prevent water source contamination from backflow.

- 7. The pesticide injection pipeline must contain a functional, automatic, quick closing check valve to prevent the flow of fluid back toward the injection pump.
- 8. The pesticide injection pipeline must contain a functional, normally closed, solenoid operated valve located on the intake side of the injection pump and connected to the system interlock to prevent fluid from being withdrawn from the supply tank when the irrigation system is either automatically or manually shut down.
- 9. The system must contain functional, interlocking controls to automatically shut off the pesticide injection pump when the water pump motor stops, or in the case where there is no water pump, when the water pressure decreases to the point where pesticide distribution is adversely affected.
- 10. The irrigation line or water pump must include a functional pressure switch which will stop the water pump motor when the water pressure decreases to the point where pesticide distribution is adversely affected.
- 11. Systems must use a metering pump, such as a positive displacement injection pump (e.g., diaphragm pump), effectively designed and constructed of materials that are compatible with the pesticides and capable of being fitted with a system interlock.
- 12. Do not apply when wind speed favors drift beyond the area intended for treatment.

#### **Chemigation Systems Connected to Public Water Systems**

- 1. Public water system means a system for the provision to the public of piped water for human consumption, if such a 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.
- 2. Chemigation systems connected to the public water system must contain a functional, reduced pressure zone, backflow preventer (RPZ) or the functional equivalent in the water supply line upstream from the point of pesticide introduction. As an option to the RPZ, discharge the water from the public water system into a reservoir tank prior to pesticide introduction. There shall be a complete physical break (air gap) between the outlet end of the fill pipe and the top overflow rim of the reservoir tank of at least twice the inside diameter of the fill pipe.
- 3. All chemigation systems connected to the public water system must also follow restrictions listed in the preceding section titled "Special Precautions for Chemigation".

#### **APPLICATION WITH DRY BULK FERTILIZERS**

Dry bulk fertilizer may be impregnated or coated with Tacoma Ag Flumi 51. Application of dry bulk fertilizer with Tacoma Ag Flumi 51 provides weed control equal to, or slightly below, the same rate of Tacoma Ag Flumi 51 applied in liquid carriers, due to better coverage with application via spray equipment. Follow label directions for Tacoma Ag Flumi 51 regarding rates, special instructions, cautions and special precautions. Apply 400 to 700 lbs. of the fertilizer/herbicide mixture per acre to obtain adequate soil coverage. Apply the mixture to the soil with properly calibrated equipment immediately after blending. Uniform application of the herbicide/fertilizer mixture is essential to prevent possible crop injury and to obtain uniform weed control.

Ammonium nitrate and/or limestone must not be used as the sole source of fertilizer, as the Tacoma Ag Flumi 51 may not adhere to these materials.

Compliance with all Federal and State regulations relating to blending pesticide mixtures with dry bulk fertilizer, registrations, labeling and application are the responsibility of the individual and/or company offering the fertilizer and Tacoma Ag Flumi 51 mixture for sale.

Tacoma Ag Flumi 51 must be premixed with water to form a slurry prior to impregnation on dry bulk fertilizer. For best results, use a minimum of 1 pt. of water for each 2 oz. of Tacoma Ag Flumi 51. Use a minimum of 6 pts. of the Tacoma Ag Flumi 51 slurry to impregnate 2000 lbs. of the fertilizer for uniform coverage of the fertilizer. Closed drum, belt, ribbon or other commonly used dry bulk blenders may be used.

The amount of Tacoma Ag Flumi 51 required can be calculated with the following formula:

Ounces of Tacoma Ag Flumi 51 per ton of fertilizer	=	ounces of Tacoma Ag Flumi 51 per acre	Х	2000	÷	pounds of fertilizer per acre
j si per tori or lertilizer j		Fluitii 31 pei acie				i lertilizer per acre

Thoroughly clean dry fertilizer blending equipment after Tacoma Ag Flumi 51 has been placed in the system to avoid injury to sensitive crops that may be treated with fertilizers blended after the equipment has been used for Tacoma Ag Flumi 51. Rinse the sides of the blender and the herbicide tank with water. Then impregnate the rinsate onto a load of dry fertilizer intended for an approved crop. Use a maximum rate of 1 gal. of rinsate per ton of fertilizer. Follow with 1 to 2 loads of unimpregnated fertilizer in the blender before switching herbicides.

#### **ROTATIONAL RESTRICTIONS**

The following rotational crops may be planted after applying Tacoma Ag Flumi 51 at the listed rate. Planting earlier than the specified rotational interval may result in crop injury.

• Do not plant any crop, except corn (field), cotton, peanut, soybean, sugarcane and sweet potato earlier than 30 days after applying Tacoma Ag Flumi 51.

Tacoma Ag Flumi 51 RATES	CROPS	ROTATION INTERVALS
1 oz./A	Cotton (no-till or strip-till only)	14 days¹
1.5 to 2 oz./A Cotton (no-till or strip-till only)		21 days <sup>1</sup>
2 oz./A or less Peanut, Soybean, Sugarcane and Sweet Potato		immediately
	Field Corn (minimum and no-till)	7 days
	Cotton and Field Corn (conventional tillage), Rice, Sorghum, Sunflower, Tobacco and Wheat	30 days¹
Barley, Dry and Snap Beans, Flax, Pea Rye, Safflower and Sweet Corn		3 months
	Alfalfa, Canola, Clover, Oats, Potato, Sugar Beet and all other crops not listed <sup>2</sup>	4 months if soil is tilled prior to planting 8 months if no tillage is performed
	Lentil	6 months
		continued

Tacoma Ag Flumi 51 RATES	CROPS	ROTATION INTERVALS
Up to 3 oz./A	Peanut, Soybean, Sugarcane and Sweet Potato	immediately
	Field Corn (minimum and no-till)	14 days
	Field Corn (conventional tillage) and Sorghum	30 days¹
	Cotton, Rice, Sunflower, Tobacco and Wheat	2 months <sup>1</sup>
	Barley, Dry and Snap Beans, Flax, Pea, Rye, Safflower and Sweet Corn	4 months
	Alfalfa, Clover, Oats, Potato, Sugar Beet	5 months if soil is tilled prior to planting 10 months if no tillage is performed
	Canola and all other crops not listed <sup>2</sup>	6 months if soil is tilled prior to planting 12 months if no tillage is performed
	Lentil	7 months
	Raised beds only: Head and Stem Brassica except Cabbage	2 months (if the top 4 inches of the beds have been removed)
Up to 4 oz./A	Sugarcane	Immediately
	Alfalfa, Canola, Potato, Sugar Beet and all other crops not listed <sup>2</sup>	6 months if soil is tilled prior to planting 12 months if not tillage is performed
	Cotton, Field Corn, Peanut, Rice, Sorghum, Soybean, Sunflower, Tobacco and Wheat	4 months
	Raised beds only: Cabbage, melon, pepper and tomato <sup>3</sup>	2 months (if the top 4 inches of the beds have been removed)
6 to 12 oz./A	Cotton Field Corn, Peanut, Rice, Sorghum, Soybean, Sunflower, Tobacco and Wheat	9 months
	Alfalfa, Canola, Sugar Beet and all other crops not listed <sup>2</sup> Trees can be transplanted 2 months after application of Tacoma Ag Flumi 51 <sup>4</sup>	12 months if soil is tilled prior to planting 18 months if no tillage is performed

<sup>&</sup>lt;sup>1</sup>At least one inch of rainfall/irrigation must occur between application and planting or crop injury may occur.

<sup>&</sup>lt;sup>2</sup>Successful soil bioassay must be performed prior to planting these crops.

<sup>&</sup>lt;sup>3</sup>**Arizona, California and Hawaii only:** For fallowbed application on transplanted cabbage, melon, pepper and tomato beds refer to directions for use found in this label.

<sup>&</sup>lt;sup>4</sup>Transplanted avocado, bushberries (including blueberry), caneberries, citrus fruit, fig, grape, nut trees, olive, pome fruit, pomegranate and stone fruit can be planted 2 months after a Tacoma Ag Flumi 51 application of 2 to 12 oz./A.

Table 1. Broadleaf Weeds Controlled by Residual Activity of Tacoma Ag Flumi 51 Herbicide

#### **BROADLEAF WEED SPECIES**

COMMON NAME	SCIENTIFIC NAME	ORGANIC MATTER	SOIL TYPE	Tacoma Ag Flumi 51 HERBICIDE RATE
Carpetweed	Mollugo verticillata	Up to 5%	All Soil Types	2 oz./A
Chickweeds				
Common	Stellaria media			
Mouseear	Cerastium vulgatum			
Dandelion	Taraxacum officinale			
Eclipta	Eclipta prostrata			
Eveningprimrose, Cutleaf	Oenothera laciniata			
Field Pennycress	Thlaspi arvense			
Florida Pusley	Richardia scabra			
Henbit	Lamium amplexicaule			
Lambsquarters, Common	Chenopodium album			
Little Mallow	Malva parviflora			
Marestail/Horseweed	Conyza canadensis			
Mayweed/False Chamomile	Matricaria maritima			
Nightshades				
Black	Solanum nigrum			
Eastern Black	Solanum ptycanthum			
Hairy	Solanum sarrachoides			
Pigweeds				
Redroot	Amaranthus retroflexus			
Smooth	Amaranthus hybridus			
Spiny Amaranth	Amaranthus spinosus			
Tumble	Amaranthus albus			
Prickly Lettuce	Lactuca serriola			
Prickly Sida (Teaweed)	Sida spinosa			
Puncturevine	Tribulus terrestris			
Purslane, Common	Portulaca oleracea			
Radish, Wild	Raphanus raphanistrum			
Redmaids	Calandrinia ciliata var menziessii			
Shepherd's-purse	Capsella bursa-pastoris			

...continued

COMMON NAME	SCIENTIFIC NAME	ORGANIC MATTER	SOIL TYPE	Tacoma Ag Flumi 51 HERBICIDE RATE
Smallflower Morningglory	Jacquemontia tamnifolia	Up to 5%	All Soil Types	2 oz./A
Spotted Spurge	Euphorbia maculata			
Venice Mallow	Hibiscus trionum			

Table 1. Broadleaf Weeds Controlled by Residual Activity of Tacoma Ag Flumi 51 Herbicide

#### **SECTION B** All weeds listed in Section A plus: Tacoma Ag Flumi **ORGANIC SOIL TYPE COMMON NAME SCIENTIFIC NAME 51 HERBICIDE** MATTER **RATE**<sup>2</sup> 2 oz./A Cotton Coffee Senna Cassia occidentalis Up to 3% All Soil Types Ambrosia artemisiifolia and Dry Bean Common Ragweed1 2.5 oz./A Field Corn False Chamomile Tripleurospermum maritima and Soybean Florida Beggarweed Desmodium tortuosum 3 oz./A Peanut and all Golden Crownbeard Verbesina encelioides other labeled crops Hairy Indigo Indigofera hirsuta Hemp Sesbania Sesbania exaltata 3 to 5% Coarse and Medium 2 oz./A Cotton and Dry Soils; (sandy loam, Bean Jimsonweed Datura stramonium 2.5 oz./A Field Corn and loamy sand, loamy, Kochia Kochia scoparia silt-loam, silt, sandy Sovbean London Rocket Sisymbrium irio 3 oz./A Peanut and all clay, sandy clay Morningglories<sup>3</sup> loam) other labeled crops Ipomoea hederacea var. Entireleaf integriuscula lvyleaf Ipomoea hederacea Red/Scarlet Ipomoea coccinea Tall Ipomoea purpurea Mustard, Wild Brassica kaber Palmer Amaranth Amaranthus palmeri Anoda cristata Spurred Anoda Fine Soils: (silty clay, 2 oz./A Cotton and silty clay loam, clay, Dry Bean **Tropic Croton** Croton glandulosus clay loam) 2 oz./A Field Corn, Waterhemps1 Peanut, Soybean and all Common Amaranthus rudis other labeled crops Tall Amaranthus tuberculatus Wild Poinsettia Euphorbia heterophylla Yellow Rocket Barbarea vulgaris

<sup>1</sup>A postemergence herbicide, such as lactofen, or glyphosate (Roundup Ready® soybeans only) may be needed following a preemergence application of Tacoma Ag Flumi 51 to adequately control common ragweed or waterhemp in soybean fields with heavy pressure.

<sup>2</sup>Due to differences in crop canopy timing between peanuts and soybeans, use 3 oz./A of Tacoma Ag Flumi 51 in peanuts, regardless of soil type and organic matter content, except in the states of North Carolina, Oklahoma and Virginia (refer to the DIRECTIONS FOR USE IN PEANUT section of this label). [Tacoma Ag Flumi 51 will provide residual control of these weeds at 2 oz./A when applied under a cotton canopy.

<sup>3</sup>Morningglory species are not adequately controlled on fine soils or soils with greater than 3% organic matter.

Table 2. Weeds Suppressed by Residual Activity of Tacoma Ag Flumi 51

BROADLEAF WEED SPECIES					
COMMON NAME	SCIENTIFIC NAME	ORGANIC MATTER	OUNCES PER ACRE		
Bristly Starbur	Acanthospermum hispidum	Up to 5%	2 to 3		
Copperleaf, Hophornbeam	Acalypha ostryifolia				
Ragweed, Giant	Ambrosia trifida				
Russian Thistle	Salsola iberica				
Smartweeds					
Ladysthumb	Polygonum persicaria				
Pennsylvania	Polygonum pensylvanicum				
Smellmelon	Cucumis melo				
Velvetleaf	Abutilon theophrasti				
Wild Buckwheat	Polygonum convolvulus				
Wormwood, Biennial	Artemisia biennis				
GRASS WEED SPECIES					
Barnyardgrass	Echinochloa crus-galli				
Bluegrass, Annual	Poa annua				
Crabgrass, Large	Digitaria sanguinalis				
Foxtail, Giant	Setaria faberi				
Goosegrass	Eleusine indica				
Lovegrass, California	Eragrostis diffusa				
Panicums					
Fall	Panicum dichotomiflorum				
Texas	Panicum texanum				
Ryegrass, Italian	Lolium multiflorum				
Signalgrass, Broadleaf	Brachiaria platyphylla				
Cheat	Bromus secalinus		1.5 to 3		
Downy Brome	Bromus tectorum				

## DIRECTIONS FOR USE IN FALL AND SPRING PREPLANT BURNDOWN AND FALLOW SEEDBED PROGRAMS IN FIELD CORN, PEANUT AND SOYBEAN

(Preemergence to Crop)

#### **RESTRICTIONS**

- Do not apply to frozen or snow covered soil.
- Do not perform any tillage operation after application or residual weed control will be reduced.
- Observe all rotational intervals prior to planting as listed in the "ROTATIONAL RESTRICTIONS" table.
- Do not apply more than 4 oz. of Tacoma Ag Flumi 51 (0.128 lb. a.i.) per acre. Do not make more than one fall burndown and fallow seedbed application per year.
- Do not make more than one spring burndown application per year.

#### FALL BURNDOWN AND FALLOW SEEDBED PROGRAMS

Tacoma Ag Flumi 51, at 2 to 4 oz./A can be used in the fall to provide residual weed control in fields that will be planted the following spring with field corn, peanut or soybean (refer to Rotational Restrictions table for rates and rotational intervals prior to planting). Weeds controlled by residual activity are listed in Table 1 (sections A and B), Broadleaf Weeds Controlled by Residual Activity of Tacoma Ag Flumi 51; Table 3, Weeds Controlled by Fall and Spring Preplant Burndown Programs; and Table 7, Weeds Controlled by Residual Activity of Tacoma Ag Flumi 51. If weeds have emerged at the time of application, use Tacoma Ag Flumi 51 in combination with a labeled burndown herbicide. Application must be made no earlier than October 15 in Region 2 or November 15 in Region 1 or when soil temperature falls below 50°F at a 2 inch depth to maintain residual weed control into the spring (April 1 in Region 1 and May 1 in Region 2) or up until planting, whichever comes first. Tacoma Ag Flumi 51 can be used in a fall burndown or fallow seedbed program outside of Regions 1 and 2, however the length of residual control may be variable.

Abnormally warm or wet winters will reduce the length of weed control observed in the spring.

#### Fall Application Regions:

Region 1: Alabama, Arkansas, Georgia, Kentucky, Mississippi, Oklahoma, Tennessee and Virginia

Region 2: Delaware, Kansas, Illinois, Indiana, Iowa, Maryland, Michigan, Minnesota, Missouri, Nebraska, North Dakota, Ohio, Pennsylvania, South Dakota, West Virginia and Wisconsin

Weeds controlled by postemergence or residual activity are listed in Table 3. Preplant burndown treatment tank mixes and rates are:

Herbicide	Rate
Program1 <sup>1</sup>	
Tacoma Ag Flumi 51	2 to 3 oz./A
Plus	
glyphosate	0.5 to 1.0 lb. ai/A
Plus	
2,4-D LVE (2,4-D for use on preplant soybeans only)	0.5 to 1.0 ai/A
Plus	
NIS + AMS	0.5% v/v + 17 lbs./100 gals of water

#### or

Program2 <sup>1</sup>			
Tacoma Ag Flumi 51 Plus	2 to 3 oz./A		
glyphosate Plus	0.5 to 1.0 lb. ai/A		
COC <sup>2</sup>	1pt/A		
or NIS + AMS	or 0.5% v/v + 17 lbs/100 gals of water		

#### or

Program3 <sup>1</sup>		
Tacoma Ag Flumi 51	2 to 3 oz./A	
Plus		
2,4-D LVE (2,4-D for use on preplant soybeans only)	0.5 to 1.0 ai/A	
Plus		
COC	1 pt/A	

<sup>&</sup>lt;sup>1</sup>The labeled rate of Dicamba can be added to Programs 1, 2 & 3 to assist in the control of emerged broadleaves. Refer to dicamba label for rotational restrictions.

<sup>&</sup>lt;sup>2</sup>Crop oil concentrate has been found to increase glyphosate burndown of emerged cutleaf eveningprimrose and Carolina geranium.

Table 3. Weeds Controlled by Fall and Spring Preplant Burndown Programs

WEEDS CO	POSTEMERGENCE				
COMMONINAME	COLENITIES NAME	Program 1	Program 2	Program 3	RESIDUAL
COMMON NAME	SCIENTIFIC NAME	SCIENTIFIC NAME  Weeds 3 Inches or Less			
Chamomile, False	Matricaria maritime	Yes	Yes	No	Yes
Cheatgrass	Bromus tectorum	Yes	Yes	No	Yes
Chickweed, Common	Stellaria media	Yes	Yes	No	Yes
Chickweed, Mouseear	Cerastium vulgatum	Yes	Yes	No	Yes
Cockle, White	Silene latifolie	No	Yes	Yes	Yes
Dandelion	Taraxacum officinale	Yes	No	Yes <sup>2</sup>	Yes
Deadnettle, Purple	Lamium purpureum	Yes	Yes	Yes	Yes
Groundsel, Cressleaf	Senecio glabellus	Yes	Yes	-	Yes
Henbit	Lamium amplexicaule	Yes	Yes	Yes	Yes
Kochia	Kochia scoparia	Yes	Yes	Yes	Yes
Marestail/Horseweed	Conyza canadensis	Yes	Yes <sup>3</sup>	Yes	Yes
Mallow, Common	Malva neglecta	Yes	Yes	No	Yes
Prickly Lettuce	Lactuca serriola	Yes	Yes	Yes	Yes
Wormwood, Biennial	Artemisia biennis	Yes	Yes	Yes	Yes
	Weeds 12 Inches or Less				
Canola, Volunteer	Brassica napus	Yes	Yes	Yes	Yes
Carolina Geranium	Geranium carolinianum	Yes	Yes	Yes	-
Eveningprimrose, Cutleaf <sup>4</sup>	Oenothera laciniata	Yes	Yes	Yes	Yes
Flixweed	Descurainia Sophia	Yes	Yes	Yes	Yes
Mustard, Tansy	Descurainia pinnata	Yes	Yes	Yes	Yes
Mustard, Wild	Brassica kaber	Yes	Yes	Yes	Yes
Shepherd's-purse	Capsella bursa-pastoris	Yes	Yes	Yes	Yes

<sup>&</sup>lt;sup>1</sup>Refer to glyphosate and/or 2,4-D labels for additional weeds controlled and rotational restrictions.

Use Programs 2 or 3 to control cutleaf eveningprimrose that are 12 inches or less and in the rosette stage.

#### **SPRING BURNDOWN PROGRAMS**

Tacoma Ag Flumi 51 can be used in combination with labeled preplant burndown herbicides to assist in the postemergence burndown of emerged weeds and provide residual weed control prior to crop emergence. Weeds controlled by residual activity are listed in Table 1.

No-till planters that incorporate the soil during planting may result in decreased weed control in the row.

<sup>&</sup>lt;sup>2</sup>Use the labeled rate of 2,4-D LVE for control of emerged dandelion.

<sup>&</sup>lt;sup>3</sup>Program 2 will not control emerged glyphosate resistant marestail/horseweed.

<sup>&</sup>lt;sup>4</sup>Use Program 1 to control cutleaf eveningprimrose that are nearing 12 inches in height or are past the rosette stage.

Apply Tacoma Ag Flumi 51 after planting peanuts and soybeans when these types of planters are used (within 3 days after planting soybeans, within 2 days after planting peanuts and before the crop emerges). Tacoma Ag Flumi 51 cannot be applied after planting field corn.

Tacoma Ag Flumi 51 can be used at 1 to 3 oz./A with labeled preplant burndown herbicides to enhance the speed of burndown and increase weed spectrum.

Tacoma Ag Flumi 51 can be used at 1 to 3 oz./A in field corn, peanut and soybean burndown programs. See "DIRECTIONS FOR USE IN FIELD CORN", "DIRECTIONS FOR USE IN PEANUT", "DIRECTIONS FOR USE IN SOYBEAN" for more information.

### DIRECTIONS FOR USE IN FALL AND SPRING BURNDOWN PROGRAMS IN COTTON AND SUGARCANE

#### **RESTRICTIONS**

- Do not apply to frozen or snow covered soil.
- Do not perform any tillage operation after application or residual weed control will be reduced.
- A minimum of 30 days must pass, and 1 inch of rainfall/irrigation must occur, between Tacoma Ag Flumi 51 application and planting of conventionally tilled cotton.
- A minimum of 14 days must pass, and 1 inch of rainfall/irrigation must occur, between Tacoma Ag Flumi 51 application and planting of no-till or strip-till cotton when a Tacoma Ag Flumi 51 rate of 1 oz./A is used and 21 days when a Tacoma Ag Flumi 51 rate of 1.5 to 2 oz./A is used. The field must contain the stubble from the previous crop.
- Do not apply more than 4 oz. of Tacoma Ag Flumi 51 (0.128 lb. a.i.) per acre.
- Do not make more than one fall burndown application per year.
- Do not make more than one spring burndown application per year.

Tacoma Ag Flumi 51 can be used at 1 to 2 oz./A with labeled burndown herbicides to enhance the speed of burndown and increase weed spectrum. Tacoma Ag Flumi 51 can be applied as part of a burndown application to sugarcane until cane emergence. Observe all rotational intervals prior to planting as listed in the "ROTATIONAL RESTRICTIONS" table. Refer to most restrictive label for minimum interval between application and planting.

#### **FALL BURNDOWN PROGRAMS**

Tacoma Ag Flumi 51, at 2 to 4 oz./A, can be used in the fall to provide residual weed control in fields that will be planted the following spring with cotton or sugarcane (refer to Rotational Restrictions table for rates and rotational intervals prior to planting). Weeds controlled by residual activity are listed in Table 1 and Table 7. If weeds have emerged at the time of application, use Tacoma Ag Flumi 51 in combination with a labeled burndown herbicide. Application must be made no earlier than October 15 in Region 2 or November 15 in Region 1 or when soil temperature falls below 50°F at a 2 inch depth to maintain residual weed control into the spring (April 1 in Region 1 and May 1 in Region 2) or up until planting, whichever comes first. Tacoma Ag Flumi 51 can be used in a fall burndown or fallow seedbed program outside of Regions 1 and 2.

Abnormally warm or wet winters will reduce the length of weed control observed in the spring.

#### SPRING BURNDOWN PROGRAMS

Tacoma Ag Flumi 51, at 1 to 2 oz./A, can be used in combination with labeled preplant burndown herbicides to assist in the postemergence burndown of emerged weeds and provide residual weed control prior to crop emergence in fields that will be planted with cotton or sugarcane. Weeds controlled by residual activity are listed in Table 1.

No-till planters that incorporate the soil during planting may result in decreased weed control in the row.

## DIRECTIONS FOR USE IN FALL AND SPRING BURNDOWN PROGRAMS IN RICE, SORGHUM, SUNFLOWER, TOBACCO AND WHEAT

(Preplant to Crop)

#### **RESTRICTIONS**

- Do not apply to frozen or snow-covered soil.
- Do not perform any tillage operation after application or residual weed control will be reduced.
- A minimum of 30 days must pass, and 1 inch of rainfall/irrigation must occur, between Tacoma Ag Flumi 51 application and planting of rice, sorghum, sugarcane, sunflowers, tobacco or wheat. Refer to most restrictive label for minimum interval between application and planting.
- Do not apply more than 4 oz. of Tacoma Ag Flumi 51 (0.128 lb. a.i.) per acre.
- Do not make more than one fall burndown application per year.
- Do not make more than one spring burndown application per year.

Tacoma Ag Flumi 51 can be used at 1 to 2 oz./A with labeled burndown herbicides to enhance the speed of burndown and increase weed spectrum. Observe all rotational intervals prior to planting as listed in the "ROTATIONAL RESTRICTIONS" table.

#### **FALL BURNDOWN PROGRAMS**

Tacoma Ag Flumi 51 can be used in combination with labeled burndown programs to control emerged weeds and provide residual weed control in fields that will be planted the following spring (refer to Rotational Restrictions table for rates and rotational intervals prior to planting). Application must be made no earlier than October 15 in Region 2 or November 15 in Region 1 or when soil temperature falls below 50°F at a two inch depth to maintain residual weed control into the spring.

Abnormally warm winters may reduce the length of weed control observed in the spring.

#### **SPRING BURNDOWN PROGRAMS**

Tacoma Ag Flumi 51 can be used in combination with labeled burndown programs to control emerged weeds and provide residual weed control prior to crop emergence. Weeds controlled by residual activity are listed in Table 1 Section A. Crops that will be planted following application must be in compliance with the rotational interval listed in the "Rotational Restriction" table above.

No-till planters that incorporate the soil during planting may result in decreased weed control in the row.

## DIRECTIONS FOR USE IN FALL BURNDOWN PROGRAMS IN FIELDS TO BE PLANTED TO

## BARLEY, FIELD PEA, FLAX, LENTIL, SAFFLOWER, SUNFLOWER AND SPRING WHEAT (Preplant to Crop)

#### **RESTRICTIONS**

- Do not apply to frozen or snow-covered soil.
- Do not perform any tillage operation after application or residual weed control will be reduced.
- Tacoma Ag Flumi 51 can be mixed with 2,4-D and/or glyphosate formulations labeled for burndown programs (preplant to crop) in accordance with the most restrictive label limitations and precautions. Labeled application rates cannot be exceeded. Do not mix Tacoma Ag Flumi 51 with any product containing a label prohibition against such mixing.
- Do not apply more than 4 oz. of Tacoma Ag Flumi 51 (0.128 lb. a.i.) per acre.
- Do not make more than one fall burndown application per year.

Observe all rotational intervals prior to planting as listed in the "ROTATIONAL RESTRICTIONS" table.

#### **FALL BURNDOWN PROGRAMS**

Tacoma Ag Flumi 51 can be used at 2 to 4 oz./A with labeled burndown herbicides to enhance the speed of burndown, increase weed spectrum and provide residual weed control of the weeds listed in Table 3 until the following spring. Rotational intervals must be followed for crop to be planted in the spring following the fall Tacoma Ag Flumi 51 application. Refer to most restrictive label for minimum interval between application and planting.

#### **DIRECTIONS FOR USE IN FALLOW LAND**

#### RESTRICTIONS

- Do not apply more than 4 oz. of Tacoma Ag Flumi 51 (0.128 lb. a.i.) per acre.
- Do not make more than one fall fallow field application per year.
- Do not make more than one spring fallow field application per year.

Tacoma Ag Flumi 51 may be used as a preemergence fallow treatment. Weeds controlled by residual activity are listed in Table 1.

Tacoma Ag Flumi 51, at 2 to 4 oz./A, can be used in the fall to provide residual weed control in fallow fields (refer to Rotational Restrictions table for rates and rotational intervals prior to planting). If weeds have emerged at the time of application, use Tacoma Ag Flumi 51 in combination with a labeled fallow herbicide. Application must be made no earlier than October 15 in Region 2 or November 15 in Region 1 or when soil temperature falls below 50°F at a 2 inch depth to maintain residual weed control into the spring (April 1 in Region 1 and May 1 in Region 2). Abnormally warm or wet winters will reduce the length of weed control observed in the spring.

Tacoma Ag Flumi 51, at 1 to 4 oz./A, can be used in spring in combination with labeled burndown herbicides to control emerged weeds and provide residual weed control.

#### DIRECTIONS FOR USE IN ESTABLISHED ALFALFA

#### RESTRICTIONS

- Do not apply more than 4 oz. of Tacoma Ag Flumi 51 (0.128 lb. a.i.) per acre during a single application.
- Do not apply more than 8 oz. of Tacoma Ag Flumi 51 (0.255 lb. a.i.) per acre per year.
- Do not make a sequential Tacoma Ag Flumi 51 application within 60 days of the first Tacoma Ag Flumi 51 application.
- Do not apply to alfalfa with greater than 6 inches of growth. Application will result in burning of treated leaves and stems.
- Do not apply within 25 days of harvest or grazing.
- Only apply with an adjuvant or tank mix with products formulated as an emulsifiable concentrate "EC" when targeting control of emerged weeds (crop burn and/or stunting must be expected and accepted if Tacoma Ag Flumi 51 is used with an adjuvant, a tank mix partner formulated as an emulsifiable concentrate (EC) or a tank mix partner formulated with an adjuvant.)
- Do not use on intended mixed alfalfa-grass stands.
- Application with paraguat can be used to burndown winter annuals prior to winter dormant period.

#### TIMING TO ALFALFA

Tacoma Ag Flumi 51 may be applied to established alfalfa with a maximum amount of growth of 6 inches or less for the preemergence control of the weeds listed in Table 7, Weeds Controlled by Residual Activity of Tacoma Ag Flumi 51. Established alfalfa is defined as alfalfa planted in the fall or spring which has gone through a first cutting/mowing. Application to alfalfa with greater than 6 inches of growth may result in unacceptable crop injury.

For control of winter annual weeds: the best timing for preemergence control is in the fall immediately after the last cutting or sheeping-off has occurred.

For control of summer annual weeds: the best timing for preemergence control is in the spring prior to alfalfa growth and before 6 inches of growth.

#### **TIMING TO WEEDS**

#### **Preemergence - Preemergence to Weeds**

Apply Tacoma Ag Flumi 51 before alfalfa growth exceeds 6 inches in height for the preemergence control of weeds listed in Table 7, Weeds Controlled by Residual Activity of Tacoma Ag Flumi 51. Make applications as soon as possible after cutting and removing alfalfa to minimize injury to alfalfa growth.

#### **Postemergence Dodder Suppression**

Apply Tacoma Ag Flumi 51 at 4 oz. per acre with an adjuvant for postemergence suppression of dodder. Tank mixes with imazethapyr, ammonium salt or imazamox will increase control.

#### **DIRECTIONS FOR USE IN ARTICHOKE**

#### **RESTRICTIONS**

- Do not apply more than 4 oz./A of Tacoma Ag Flumi 51 (0.128 lb. a.i.) per acre during a single application on annual or perennial artichoke varieties after new planting.
- Do not apply more than 6 oz./A of Tacoma Ag Flumi 51 (0.191 lb. a.i.) per acre during a single application on perennial artichoke varieties after cutback.
- Do not apply more than 6 oz. of Tacoma Ag Flumi 51 (0.191 lb. a.i.) per acre per year.
- Application to artichoke foliage may result in unacceptable crop injury.

#### **TIMING TO ARTICHOKE**

**Annual Varieties:** Tacoma Ag Flumi 51 may be applied to artichoke beds prior to transplanting. Application of Tacoma Ag Flumi 51 must be made to the beds no later than 2 days prior to transplanting. Irrigation or rainfall after transplanting is necessary to activate Tacoma Ag Flumi 51. Do not irrigate the Tacoma Ag Flumi 51 before transplanting. Heavy irrigation or rainfall may result in crop injury. The injury is usually transitory and the plants will quickly grow out of the crop damage. Take care to minimize soil disturbance during transplanting, as preemergence weed control will decrease as soil disturbance increases.

**Perennial Varieties:** Tacoma Ag Flumi 51 may be applied to artichokes after planting of crown pieces of "cut back" of mature plants. Applications of Tacoma Ag Flumi 51 must be made within 2 days after planting or cut back and prior to artichoke emergence. Application after the artichokes have begun to crack, or are emerged, will result in crop injury. Application may not be made when artichokes have begun to emerge (cracking).

#### **TIMING TO WEEDS**

#### Pre-plant (annual)/Preemergence (perennial) to Artichokes – Preemergence to Weeds

Apply Tacoma Ag Flumi 51 pre-plant to annual artichokes for preemergence control of the weeds. For perennial artichokes apply before cracking for preemergence control of weeds. Make application prior to weed emergence. A post-emergence herbicide may be necessary to control emerged weeds. Tacoma Ag Flumi 51 may be applied to annual or perennial artichokes as specified above for preemergence control of weeds listed in Table 7, Weeds Controlled by Residual Activity of Tacoma Ag Flumi 51.

#### DIRECTIONS FOR USE IN ESTABLISHED ASPARAGUS

#### **RESTRICTIONS**

- Do not apply more than 6 oz. of Tacoma Ag Flumi 51 (0.191 lb. a.i.) per acre during a single application.
- Do not apply more than 6 oz. of Tacoma Ag Flumi 51 (0.191 lb. a.i.) per acre per year.
- Apply only to dormant asparagus no less than 14 days before spears emerge. Application to non-dormant asparagus may result in unacceptable crop injury.
- Do not work soil within 60 days prior to application in the spring. Soil can be worked after spear harvest in preparation for Tacoma Ag Flumi 51 application prior to fern emergence. Treated soil that is splashed onto the ferns may result in spotting.

#### **TIMING TO ASPARAGUS – Dormant**

Tacoma Ag Flumi 51 may be applied to dormant asparagus for preemergence control of the weeds listed in Table 10, Weeds Controlled by Preemergence Application of Tacoma Ag Flumi 51. Application to non-dormant asparagus will result in unacceptable crop injury. Make applications no less than two weeks prior to spear emergence and must be sprinkler or rainfall incorporated with 0.5 to 0.75 inches of water or some scoring may result.

#### **TIMING TO ASPARAGUS – Post Harvest**

Apply Tacoma Ag Flumi 51 after the final harvest of the season, but prior to fern emergence, for preemergence control of the weeds listed in Table 10, Weeds Controlled by Preemergence Application of Tacoma Ag Flumi 51. Application after fern emergence will result in unacceptable crop injury. Apply no less than two weeks prior to fern emergence and must be sprinkler or rainfall incorporated with 0.5 to 0.75 inches of water. Add a burndown tank mix partner for the control of emerged weeds labeled for asparagus in accordance with the most restrictive labeled limitations and precautions.

#### **TIMING TO WEEDS**

#### **Burndown - Dormant Asparagus, Postemergence to Weeds**

Tacoma Ag Flumi 51 may be used for residual weed control, as well as to assist in postemergence burndown of many annual and perennial weeds where asparagus is dormant. For control of emerged weeds, tank mix Tacoma Ag Flumi 51 with paraquat. Refer to paraquat label for specified rate and application parameters. To ensure thorough coverage, use a minimum of 15 gals. of spray solution per acre. Tacoma Ag Flumi 51 tank mixes applied to assist in the control of emerged weeds must be applied with a non-ionic surfactant at 0.25% v/v. A spray grade nitrogen source (either ammonium sulfate at 2 to 2.5 lbs./A or 28 to 32% nitrogen solution at 1 to 2 qts./A) may be added to increase herbicidal activity.

#### Burndown - After Last Harvest of Season, Postemergence to Weeds

Use Tacoma Ag Flumi 51 for residual weed control and to assist in postemergence burndown for many annual and perennial weeds where asparagus harvest has been completed for the year. For control of emerged weeds, use a labeled tank mix partner with activity on the emerged weeds.

Preemergence – Dormant Asparagus or After Last Harvest of Season, Preemergence to Weeds
Apply Tacoma Ag Flumi 51 to dormant asparagus for the preemergence control of weeds listed in Table 10,
Weeds Controlled by Preemergence Application of Tacoma Ag Flumi 51.

#### DIRECTIONS FOR USE IN BRASSICA HEAD AND STEM VEGETABLE GROUP 5-16

**Includes:** Broccoli; Brussels Sprouts; Cabbage; Cabbage, Chinese, napa; Cauliflower, cultivars, varieties, and/or hybrids of these.

### FOR DISTRIBUTION AND USE ONLY WHERE THIRD PARTY INDEMNIFICATION IS IN EFFECT ROW MIDDLES

#### **RESTRICTIONS**

- Do not apply after crops are transplanted.
- Do not apply more than 3 oz. of Tacoma Ag Flumi 51 (0.096 lb. a.i.) per acre during a single application.
   For Cabbage do not apply more than 4 oz. of Tacoma Ag Flumi 51 (0.128 lb. a.i.) per acre during a single application.
- Do not apply more than 6 oz. of Tacoma Ag Flumi 51 (0.191 lb. a.i.) per acre per year. For Cabbage, do not apply more than 8 oz. of Tacoma Ag Flumi 51 (0.255 lb. a.i.) per acre per year.

#### **PRECAUTIONS**

- Tacoma Ag Flumi 51 can only be applied in row middles between raised plastic mulched beds that are at least 4 inches higher than the treated row middle and the mulched bed must have a minimum of a 24-inch bed width.
- Spray must remain between raised beds and contact no more than the bottom 1 inch of the side of the raised bed.
- All applications must be made with shielded or hooded equipment.
- Efficacy will be reduced if Tacoma Ag Flumi 51 is applied to areas of standing water within the row middles.
- Injury can occur if soil particles treated with Tacoma Ag Flumi 51 contact the crop.
- Irrigate treated field after application and prior to transplanting with minimum of ¼ inch of water if rainfall does not occur between application and transplanting.

#### **TIMING TO CROP**

Tacoma Ag Flumi 51 may be applied at 3 oz. per acre (except cabbage may be applied at 4 oz./A) as a shielded or hooded application to row middles after plastic is laid up to transplanting or seeding. Transplanting or seeding can take place any time after spray has dried. Spray must be applied to the row middle and contact no more than approximately the bottom 1 inch of the side of the raised bed. If the top of the mulch beds (where plants are to be transplanted) is contacted, severe injury can occur due to foliage contact with treated plastic.

#### WEED CONTROL AND TANK MIXING

Tacoma Ag Flumi 51 provides preemergence residual control of the weeds listed in Table 7, *Weeds Controlled by Residual Activity of Tacoma Ag Flumi 51*, as well as to assist in the postemergence control of emerged weeds. A registered preemergence grass herbicide may be added for control of additional grassy weeds. For control of emerged weeds, tank mix Tacoma Ag Flumi 51 with paraquat, carfentrazone-ethyl, glyphosate, or other registered burndown herbicide. Refer to tank mix partner label for specified rates and application parameters.

## DIRECTIONS FOR USE ON CACTUS (PRICKLY PEAR)

#### **RESTRICTIONS**

- Do not apply more than 12 oz. of Tacoma Ag Flumi 51 (0.383 lb. a.i.) per acre during a single application.
- Do not apply more than 12 oz. of Tacoma Ag Flumi 51 (0.383 lb. a.i.) per acre during a 12 month period.
- Use a maximum Tacoma Ag Flumi 51 rate of 6 oz./A (0.191 lb. a.i.) per application on any soil that has a sand plus gravel content over 80% if plants are less than 3 years of age. (Two applications of 6 oz./A in a 12 month period can still be made as long as there have been 60 days between applications).
- Do not apply to farm alleys or roads where traffic may result in treated dust settling onto crops or other desirable vegetation.
- Do not mow treated areas. Dust created by mowing may drift onto desirable vegetation resulting in injury.
- Do not apply within 60 days prior to harvest.

Do not apply to plants established less than one year.

#### **PRECAUTIONS**

- Raise mower height during all mowing to reduce dust. Dust created by mowing can drift onto desirable vegetation resulting in injury.
- Follow the most restrictive label limitations and precautions of the tank mix product(s) being used.
- Avoid direct or indirect spray contact to foliage.

Apply Tacoma Ag Flumi 51 as a uniform broadcast application to the plantation floor or as a uniform band directed at the base of the cactus. The preferred application timing for Tacoma Ag Flumi 51 is in the fall to maximize the potential for rainfall to activate and set the herbicide. Do not apply over the top of crop or allow spray to come in contact with crop as a result of application or drift.

#### **Preemergence Application**

Apply 6 to 12 oz. (0.188 to 0.38 lb ai/A) of Tacoma Ag Flumi 51 per broadcast acre as a preemergence application. Tacoma Ag Flumi 51 applications must be made prior to weed emergence for control of weeds listed in Table 10, *Weeds Controlled by Preemergence Application of Tacoma Ag Flumi 51*. Make preemergence (to weed emergence) applications of Tacoma Ag Flumi 51 to a weed-free soil surface. Preemergence application of Tacoma Ag Flumi 51 must be completed prior to weed emergence. Moisture is necessary to activate Tacoma Ag Flumi 51 on soil for residual weed control. Dry weather following application of Tacoma Ag Flumi 51 may reduce effectiveness. However, when adequate moisture is received after dry conditions, Tacoma Ag Flumi 51 will control susceptible germinating weeds.

#### **Postemergence Application**

Apply 6 to 12 oz. (0.188 to 0.38 lb ai/A) of Tacoma Ag Flumi 51 per broadcast acre plus an adjuvant (0.25% v/v non-ionic surfactant or 1 qt/A crop oil concentrate). The addition of an adjuvant enhances Tacoma Ag Flumi 51 activity on emerged weeds. Thorough spray coverage is necessary to maximize the postemergence activity of Tacoma Ag Flumi 51.

Refer to Table 13, *Broadleaf Weeds Controlled by Residual Activity of Tacoma Ag Flumi 51* for weeds controlled by the residual activity of Tacoma Ag Flumi 51. Tacoma Ag Flumi 51 may be tank mixed with a labeled burndown herbicide for control of the emerged weeds.

Residual weed control will be reduced if vegetation prevents the Tacoma Ag Flumi 51 from reaching the soil surface. If vegetation is heavy, it is advised to use a burndown herbicide with Tacoma Ag Flumi 51 and make a sequential Tacoma Ag Flumi 51 application prior to the emergence of new weeds.

#### **Carrier Volume and Spray Pressure**

To ensure thorough coverage in burndown applications, use a minimum of 15 gallons of spray solution per acre. Use higher gallonage if dense vegetation or heavy crop residue is present.

Nozzle selection must meet manufacturer's gallonage and pressure recommendations.

#### **Banded Application**

Rates listed in Table 13, Weeds Controlled by Postemergence Activity of Tacoma Ag Flumi 51 Tank Mixes, refer to a broadcast application covering the entire acre. Refer to the Band Application table in Use Information Section to calculate amount needed per acre when making a banded application.

#### **DIRECTIONS FOR USE IN CELERY**

#### **RESTRICTIONS**

- Do not apply more than 3 oz. of Tacoma Ag Flumi 51 (0.096 lb. a.i.) per acre during a pre-transplant application.
- In the state of California, use as a pre-transplant application only.
- Do not apply more than 3 oz. of Tacoma Ag Flumi 51 (0.096 lb. a.i.) per acre during a post-transplant application.
- Do not apply more than 3 oz. of Tacoma Ag Flumi 51 (0.096 lb. a.i.) per acre per year.
- Do not use with an adjuvant.
- Post transplant applications must be made between 3 to 7 days following transplanting.
- Do not apply as part of a tank mix.

#### **TIMING TO CELERY**

Apply Tacoma Ag Flumi 51 at 3 oz/A prior to transplanting, or between 3 and 7 days following transplanting, for preemergence control of the weeds listed in Table 1, Broadleaf Weeds Controlled by Residual Activity of Tacoma Ag Flumi 51.

#### **TIMING TO WEEDS**

Use Tacoma Ag Flumi 51 prior to weed emergence for residual control.

It is the pesticide user's responsibility to ensure that all products are registered for the intended use. Read and follow the applicable restrictions and limitations and directions for use on all product labels involved in tank mixing. Users must follow the most restrictive directions for use and precautionary statements of each product in the tank mixture. Tacoma Ag Flumi 51, when applied according to label use directions, will control the weeds listed in Table 1, Broadleaf Weeds Controlled by Residual Activity of Tacoma Ag Flumi 51. This label makes no claims concerning control of other weed species.

#### **DIRECTIONS FOR USE IN CLOVER**

#### For Use in Idaho, Oregon and Washington Only

#### RESTRICTIONS

- Do not apply more than 4 oz. of Tacoma Ag Flumi 51 (0.128 lb. a.i.) per acre during a single application.
- Do not apply more than 4 oz. of Tacoma Ag Flumi 51 (0.128 lb. a.i.) per acre per year.
- Do not apply within 25 days of harvest or grazing.
- Do not apply to clover with greater than 6 inches of growth. Application will result in burning of treated leaves and stems.
- Do not use on intended mixed clover-grass stands.

#### **PRECAUTIONS**

Only apply with an adjuvant or tank mix with products formulated as an emulsifiable concentrate "EC" when targeting control of emerged weeds (expect and accept crop may be burned and/or stunting when applying tank mixes of Tacoma Ag Flumi 51 with an adjuvant).

- Application with paraguat can be used to burndown winter annuals prior to winter dormant period.
- Application to clover with greater than 6 inches of growth may result in unacceptable crop injury.

#### **TIMING TO CLOVER**

Tacoma Ag Flumi 51 may be applied to established clover with a maximum amount of growth of 6 inches or less for the preemergence control of the weeds listed in Table 7, Weeds Controlled by Residual Activity of Tacoma Aq Flumi 51. Established clover is defined as clover planted in the fall or spring which has gone through a first cutting/mowing.

For control of winter annual weeds: the best timing for preemergence control is in the fall immediately after the last cutting or sheeping-off has occurred.

For control of summer annual weeds: the best timing for preemergence control is in the spring prior to clover growth and before 6 inches of growth.

#### **TIMING TO WEEDS**

#### **Preemergence - Preemergence to Weeds**

Apply Tacoma Ag Flumi 51 before clover growth exceeds 6 inches in height for the preemergence control of weeds listed in Table 7, Weeds Controlled by Residual Activity of Tacoma Ag Flumi 51. Make applications as soon as possible after cutting and removing clover to minimize injury to clover growth.

#### **Postemergence Dodder Suppression**

Apply Tacoma Ag Flumi 51 at 4 oz. per acre with an adjuvant for postemergence suppression of dodder. Tank mixes with imazethapyr, ammonium salt or imazamox will increase control.

#### DIRECTIONS FOR USE IN COTTON

#### RESTRICTIONS

- Do not apply more than 2 oz. of Tacoma Ag Flumi 51 (0.064 lb. a.i.) per acre during a single application.
- Do not apply more than 4 oz. of Tacoma Ag Flumi 51 (0.128 lb. a.i.) per acre per year.
- Do not make a sequential Tacoma Ag Flumi 51 application within 30 days of the first Tacoma Ag Flumi 51 application.
- Do not apply within 60 days of harvest.

#### **ENVIRONMENTAL CONDITIONS AND BIOLOGICAL PERFORMANCE** Hooded, Shielded and Layby Application

For best results, apply Tacoma Ag Flumi 51 to actively growing weeds within the growth stages indicated in this label. Applying Tacoma Ag Flumi 51 under conditions that do not promote active weed growth will reduce herbicide effectiveness. Do not apply Tacoma Ag Flumi 51 when the crop or weeds are under stress due to drought, excessive water, extremes in temperature, disease or low humidity. Weeds under stress tend to become less susceptible to herbicidal action. Tacoma Ag Flumi 51 is most effective when applied under sunny conditions at temperatures above 65°F.

Tacoma Ag Flumi 51 is rainfast one hour after application. Applications must not be made if rain is expected within one hour of application or postemergence efficacy may be reduced. Rainfall within one hour of application will not adversely affect residual activity.

#### HERBICIDE RATE

#### **Hooded, Shielded and Layby Application**

For postemergence weed control, apply Tacoma Ag Flumi 51 through a hooded or shielded sprayer or at layby, at 2 oz/A, in combinations with MSMA or at 1 to 2 oz/A in combination with glyphosate, to assist in the control of weeds listed in Table 4. Residual weed control can also be obtained through hooded, shielded and layby application of Tacoma Ag Flumi 51. Weeds that are controlled through residual activity of Tacoma Ag Flumi 51 are listed in Table 1. Weeds that are suppressed by residual activity of Tacoma Ag Flumi 51 are listed in Table 2.

Table 4. Emerged Broadleaf Weeds Controlled by Hooded, Shielded and Layby Application of Tacoma Ag Flumi 51 Tank Mixes With Glyphosate or MSMA in Cotton

BROADLEAF WEED SPECIES		WEED HEIGHT (inches)	
COMMON NAME	SCIENTIFIC NAME	2 oz./A	
Bindweed, Field <sup>1</sup>	Convolvulus arvensis	4	
Carpetweed	Mollugo verticillata	4	
Chickweed, Common	Stellaria media	4	
Cocklebur, Common	Xanthium strumarium	4	
Florida Beggarweed	Desmodium tortuosum	2	
Hemp Sesbania	Sesbania exaltata	6	
Jimsonweed	Datura stramonium	4	
Lambsquarters, Common	Chenopodium album	4	
Morningglories			
Entireleaf	Ipomoea hederacea var. integriuscula	4	
lvyleaf	Ipomoea hederacea	4	
Pitted	Ipomoea lacunose	4	
Red	Ipomoea coccinea	4	
Tall	Ipomoea purpurea	2	
Mustard, Wild	Brassica kaber	6	
Nightshades			
Black	Solanum nigrum	4	
Eastern Black	Solanum ptycanthum	4	
Hairy	Solanum sarrachoides	4	
Pigweeds			
Palmer Amaranth	Amaranthus palmeri	4	
Redroot	Amaranthus retroflexus	4	
Smooth	Amaranthus hybridus	4	
Plaintain, Broadleaf	Plantago major	6	
Prickly Sida (Teaweed)	Sida spinosa	4	
Purslane, Common	Portulaca oleracea	2	
		continu	

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BROADLEAF WEED SPECIES		WEED HEIGHT (inches)	
COMMON NAME	SCIENTIFIC NAME	2 oz./A	
Ragweeds			
Common	Ambrosia artemisiifolia	2	
Giant	Ambrosia trifida	4	
Rice Flatsedge	Cyperus iria	2	
Sicklepod	Senna obtusifolia	4	
Smartweeds			
Ladysthumb	Polygonum persicaria	4	
Pale	Polygonum lapathifolium	4	
Pennsylvania	Polygonum pensylvanicum	4	
Spotted Spurge	Euphorbia maculata	4	
Velvetleaf	Abutilon theophrasti	4	
Venice Mallow	Hibiscus trionum	2	
Waterhemps			
Common	Amaranthus rudis	2	
Tall	Amaranthus tuberculatus	2	

<sup>&</sup>lt;sup>1</sup>Tacoma Ag Flumi 51 tank mixes will control the above ground portion of field bindweed. Repeated applications will be needed to control regrowth.

#### CARRIER VOLUME AND SPRAY PRESSURE

#### Hooded, Shielded and Layby Application

To ensure thorough coverage in hooded, shielded and layby applications, use 15 to 30 gals spray solution per treated acre. Use 20 to 30 gals per treated acre under heavy weed pressure. Nozzle selection must meet manufacturer's gallonage and pressure recommendations for application method being used. Do not use "Flood Jet" nozzles, as they tend to increase the chance of crop injury.

#### **ADDITIVES**

#### **Hooded, Shielded and Layby Application**

Weed control from hooded, shielded or layby application of Tacoma Ag Flumi 51 in cotton requires the addition of an agronomically approved non-ionic surfactant to the spray mixture. Non-ionic surfactant must contain at least 80% active ingredient. Verify mixing compatibility qualities by a jar test. **The use of crop oil concentrates, methylated seed oils, organo-silicant surfactants or products containing these ingredients, may result in severe crop injury and must not be used.** 

#### **APPLICATION EQUIPMENT**

Apply Tacoma Ag Flumi 51 tank mixes, with ground equipment using standard commercial sprayers equipped with nozzles designed to deliver the desired spray pressure and spray volume. Use only application equipment that is clean and in good repair. Nozzles must meet manufacturer's recommendations for spray pattern and placement on spray boom and must be checked frequently for accuracy.

#### TIMING TO COTTON

#### **Hooded and Shielded Application**

Tacoma Ag Flumi 51 tank mixes may be applied with a hooded or shielded sprayer after cotton has reached a minimum of 6 inches in height. All nozzles must be under the hood or behind the shield to ensure no spray solution comes in contact with the cotton. Care must be taken to ensure the spray solution or drift does not come in contact with the cotton or severe crop injury can occur.

#### **Layby Application**

Layby application of Tacoma Ag Flumi 51 tank mixes may be made once cotton has reached a minimum of 16 inches in height. Cotton that is smaller than 16 inches in height may be injured by Tacoma Ag Flumi 51 applications. Tacoma Ag Flumi 51 application must be directed to the lower 2 inches of the cotton stem to avoid crop injury.

#### **TIMING TO WEEDS**

Tacoma Ag Flumi 51 tank mix application must be made to weeds within the height range given in Table 4.

#### TANK MIXES

Tacoma Ag Flumi 51 must be tank mixed with one of the herbicides listed in Table 5 for postemergence control of the weeds listed in Table 4.

Table 5. Tank Mixes with Tacoma Ag Flumi 51 for Hooded, Shielded and/or Layby Use in Cotton

TANK MIX PARTNER	TARGET WEEDS	HOODED AND SHIELDED	LAYBY
glyphosate	Perennial Grasses and Broadleaves	X	X <sup>1</sup>
MSMA	Annual Grasses Yellow Nutsedge	X	X

<sup>&</sup>lt;sup>1</sup>For use only in cotton with the Roundup Ready gene.

#### **DIRECTIONS FOR USE IN CUCURBIT VEGETABLES**

**Cucurbit Vegetables (Crop Group 9) including:** chayote (fruit); Chinese Waxgourd (Chinese preserving melon); citron melon; cucumber; gherkin; gourd; edible (includes hyotan, cucuzza, hechima, Chinese okra); *Momordica* spp. (includes balsam apple, balsam pear, bittermelon, Chinese cucumber); muskmelon (includes cantaloupe); pumpkin; squash, summer; squash, winter (includes butternut squash, calabaza, hubbard squash, acorn squash, spaghetti squash); watermelon

Many weather related factors, including high wind or heavy rains or cool conditions at or near crop transplanting, may result in crop injury in fields treated with this product. On occasion, this has resulting in a delay in maturity.

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. Tacoma Ag Flumi 51, when applied according to label use directions, will control the weeds listed in Table 7, Weeds Controlled by Residual Activity of Tacoma Ag Flumi 51. This label makes no claims concerning control of other weed species.

#### RESTRICTIONS

- Do not apply more than 4 oz. of Tacoma Ag Flumi 51 (0.128 lb. a.i.) per acre during a single application.
- Do not apply more than 8 oz. of Tacoma Ag Flumi 51 (0.255 lb. a.i.) per acre per year.

## FOR DISTRIBUTION AND USE ONLY WHERE THIRD PARTY INDEMNICATION IS IN EFFECT ROW MIDDLES

#### **RESTRICTIONS**

- Do not use with an adjuvant.
- Spray must be directed to the row middle, away from the crop bed and with minimal contact with plastic, including the sides of the bed. If top of mulch beds (where plants are to be transplanted) is contacted, severe injury can occur due to foliage contact with treated plastic. In this scenario, a rainfall event of 1/2 inch (natural or irrigation) must occur prior to transplanting to reduce Tacoma Ag Flumi 51 residues.
- does not occur between application and transplanting.
- All applications must be made with hooded or shielded equipment.

#### **PRECAUTIONS**

- Grow plants on raised plastic mulched beds that are higher than the treated row middle.
- Drift of treated soil particles onto plants may cause contact injury.
- Irrigate treated field after application and prior to transplanting with minimum of 1/4 inch of water if rainfall does not occur between application and transplanting.

#### TIMING TO CUCURBIT VEGETABLES

Apply Tacoma Ag Flumi 51 at 4 oz. per acre as a hooded or shielded application to row middles up to 14 days prior to transplanting or seeding for preemergence control of the weeds listed in Table 7, Weeds Controlled by Residual Activity of Tacoma Ag Flumi 51, as well as to assist in the postemergence control of emerged weeds. A second application of Tacoma Ag Flumi 51 at 4 oz. per acre may be applied up to 21 days after transplanting or emergence if needed. Do not apply during or after bloom.

#### **TIMING TO WEEDS**

Tacoma Ag Flumi 51 may be used for residual weed control, as well as to assist in postemergence burndown of many annual and perennial weeds in row middles. A registered preemergence grass herbicide may be added for control of additional grassy weeds. For assisting in the control of emerged weeds, tank mix Tacoma Ag Flumi 51 with paraquat, carfentrazone-ethyl or other registered burndown herbicide. Do not tank mix with glyphosate after transplanting. Refer to tank mix partner's label for specified rate and application parameters.

#### DIRECTIONS FOR USE ON TRANSPLANTED MELON, PEPPER AND TOMATO BEDS

For Use in the States of Arizona, California and Hawaii Only

#### RESTRICTIONS

- Do not apply more than 4 oz. of Tacoma Ag Flumi 51 (0.128 lb. a.i.) per acre during a single application.
- Do not apply more than 4 oz. of Tacoma Ag Flumi 51 (0.128 lb. a.i.) per acre per year.

Many weather related factors, including high wind or heavy rains or cool conditions at or near crop transplanting, may result in crop injury in fields treated with Tacoma Ag Flumi 51. On occasion this has resulted in a delay in maturity.

#### **TIMING TO CROP**

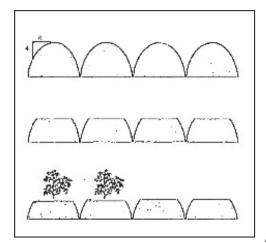
#### Tacoma Ag Flumi 51 FALLOWBED USE PRIOR TO TRANSPLANTING

Tacoma Ag Flumi 51 RATES	ADJUVANT	GPA	TRANSPLANTING INTERVAL
4 oz/A	Required by burndown tank mix partner	Ground – 20 to 40	2 Months

**Application Method:** Apply with a burndown herbicide labeled for the control of emerged weeds. Tacoma Ag Flumi 51, when used alone, will not provide satisfactory control of emerged weeds.

### USE RESTRICTIONS FOR PREEMERGENCE FALLOWBED WEED CONTROL PRIOR TO TRANSPLANTING

- Always read and follow all label directions when using any pesticide alone or in tank mix combinations.
- The top 4 inches of the bed, from a horizontal and vertical perspective, where the crop will be transplanted, must be removed prior to transplanting.
- Use only healthy transplants. Do not use on direct seeded crops.
- This use pattern makes no claim for in-season weed control after the beds have been disturbed.
- Do not apply when weather conditions favor spray drift.



Beds are formed and Tacoma Ag Flumi 51 is applied with a burndown herbicide.

A minimum of 2 months after Tacoma Ag Flumi 51 application, the tops of the beds are removed and the soil from the tops of the beds is placed in the area between the beds.

Crops are transplanted into beds.

#### **DIRECTIONS FOR USE IN DRY BEANS**

Dried cultivars of bean (*Lupinus*); bean (*Phaseolus*) (includes field bean, kidney bean, lima bean (dry), navy bean, pinto bean, tepary bean); bean (*Vigna*) (includes adzuki bean, blackeyed pea, catjang, cowpea, crowder pea, moth bean, mung bean, rice bean, southern pea, urd bean); broad bean (dry); chickpea; guar; lablab bean and lentil

#### WEED SUPPRESSION

#### **RESTRICTIONS**

- In Arizona, California, Colorado, Hawaii, Idaho, Nebraska, Oregon, Washington do not apply more than 1.5 oz. of Tacoma Ag Flumi 51 (0.048 lb. a.i.) per acre during a single application to dry beans however up to 2.0 oz. (0.064 lb. a.i.) per acre may be applied to chickpea (garbanzo beans) in these states. For all other states, do not apply more than 2 oz. of Tacoma Ag Flumi 51 (0.064 lb. a.i.) per acre during a single application.
- In Arizona, California, Colorado, Hawaii, Idaho, Nebraska, Oregon, Washington do not apply more than 1.5 oz. of Tacoma Ag Flumi 51 (0.048 lb. a.i.) per acre per year to dry beans however up to 2.0 oz. (0.064 lb. a.i.) per acre per year may be applied to chickpea (garbanzo beans) in these states. For all other states, do not apply more than 2 oz. of Tacoma Ag Flumi 51 (0.064 lb. a.i.) per acre per year.

Many weather related factors, including high wind, splashing or heavy rains or cool conditions at or near crop emergence, may result in dry bean injury in fields treated with Tacoma Ag Flumi 51. On occasion this has resulted in a delay in maturity.

#### **TIMING TO DRY BEAN**

Tacoma Ag Flumi 51 may be applied to dry beans within 2 days after planting for the preemergence suppression of the weeds listed in Table 1, Broadleaf Weeds Controlled by Residual Activity of Tacoma Ag Flumi 51 or Table 8, Weeds Suppressed by Residual Activity of Tacoma Ag Flumi 51. Tacoma Ag Flumi 51 may be tank mixed with other labeled herbicides for broad spectrum weed control.

#### **TIMING TO WEEDS**

Tacoma Ag Flumi 51 may be applied to dry beans prior to planting or preemergence (after planting). Preemergence application of Tacoma Ag Flumi 51 must be made within 2 days after planting and prior to dry bean emergence. To avoid severe crop injury, do not apply to dry beans after beans begin to crack or have emerged.

Preplant incorporation (PPI) applications may result in reduced weed control.

#### ADDITIONAL RESIDUAL GRASS CONTROL

Tacoma Ag Flumi 51 can be tank mixed with pendimethalin for additional grass control.

### HARVEST AID RESTRICTIONS

- Do not apply more than 3 oz. of Tacoma Ag Flumi 51 (0.096 lb. a.i.) per acre during a single application.
- Do not apply more than 3 oz. of Tacoma Ag Flumi 51 (0.096 lb. a.i.) per acre per year.
- Do not harvest within 5 days of application.

Desiccation from Tacoma Ag Flumi 51 requires the addition of an agronomically approved adjuvant to the spray mixture. Use a methylated seed oil which contains at least 15% emulsifiers and 80% oil at 2% v/v. A spray grade nitrogen source (either ammonium sulfate at 2 to 2.5 lbs/A or a 28 to 32% nitrogen solution

at 1 to 2 qts/A) may be added to the spray mixture along with either a crop oil concentrate or methylated seed oil to enhance desiccation. The addition of a nitrogen source does not replace the need for a crop oil concentrate or a methylated seed oil. Tank mixing Tacoma Ag Flumi 51 with glyphosate or paraquat will increase control or emerged weeds and aid in harvest. Add a burndown tank mix partner for the control of emerged weeds labeled for dry bean in accordance with the most restrictive labeled limitations and precautions.

#### **TIMING TO DRY BEANS**

Apply when crop is mature and at least 80% of the pods are yellowing and mostly ripe with no more than 40% (bush type beans) or 30% (vine type beans) of the leaves still green in color. Dry beans can be harvested 5 days after application. To ensure thorough coverage use 15 to 30 gallons spray solution per acre. Nozzle selection must meet manufacturer's gallonage and pressure recommendations for postemergence application.

#### DIRECTIONS FOR USE IN FIELD CORN

#### **RESTRICTIONS**

- Use only on no-till or minimum tillage fields where last years crop residue has not been incorporated into the soil.
- Corn must be planted between 14 and 30 days after application unless the application is made as part of a Fall burndown program.
- Corn can be planted 7 days after an application of 2 oz./A if a minimum of 25% of the soil surface is covered with the residue of the preceding crop and a minimum of 1/4 inch of rainfall has occurred between application and planting.
- Do not apply more than 3 oz. of Tacoma Ag Flumi 51 (0.096 lb. a.i.) per acre per year.
- Do not irrigate between emergence and 2-leaf corn.
- Do not use on popcorn, sweet corn or corn grown for seed.

#### TIMING TO FIELD CORN

- Apply Tacoma Ag Flumi 51, at 2 to 3 oz./A, between 7 and 30 days prior to planting field corn for the
  preemergence control of the weeds listed in Table 1, Broadleaf Weeds Controlled by Residual Activity of
  Tacoma Ag Flumi 51.
- Apply Tacoma Ag Flumi 51 at 2 oz./A between 7 and 30 days prior to planting field corn if a minimum of 25% of the soil surface is covered with the residue of the preceding crop and a minimum of 1/4 inch of rainfall has occurred between application and planting.
- Apply Tacoma Ag Flumi 51 at 3 oz./A between 14 and 30 days prior to planting field corn.

# **Burndown Use Directions – For Preplant Applications in Field Corn**

Tacoma Ag Flumi 51, applied as part of a burndown program, may be used for residual weed control, as well as to assist in postemergence burndown of many weeds where field corn will be planted directly into the residue of the previous year. See Directions for Use in Fall and Spring Preplant Burndown and Fallow Seedbed Programs in Field Corn, Peanut and Soybean for rates and timing of applications. For control of emerged weeds, Tacoma Ag Flumi 51 must be applied with an appropriate burndown tank mix partner listed

in Table 6. To ensure thorough coverage, use a minimum of 15 gallons of spray solution per acre. Refer to tank mix partner's label for recommended application pressure and recommended adjuvant systems.

# INCREASING SPEED OF GLYPHOSATE BURNDOWN ACTIVITY

Tacoma Ag Flumi 51, at 1 oz./A, may be tank mixed with glyphosate to increase the speed of burndown activity compared to glyphosate applied alone. Residual weed control will not be provided at rates lower than 2 oz./A; however, suppression of the weeds in Table 2 may occur at Tacoma Ag Flumi 51 rates as low as 1 oz./A. Applications of Tacoma Ag Flumi 51 at 1 oz./A must be made a minimum of 14 days prior to planting field corn.

#### **TANK MIXES**

Tacoma Ag Flumi 51 may be tank mixed with the herbicides listed in Table 6 for pre-plant burndown applications. Refer to tank mix partner's label for adjuvant recommendations. 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.

Table 6. Tank Mix Partners for Burndown and/or Residual Control of Weeds in Field Corn

TANK MIX PARTNERS <sup>1</sup>					
2,4-D ethylhexyl ester	metribuzin				
atrazine	paraquat				
thifensulfuron + rimsulfuron	flumetsulam				
dicamba	rimsulfuron				
tribenuron-methyl	simazine				
glyphosate	dicamba dimethylamine salt + 2,4-D dimethylamine salt				
clopyralid + flumetsulam					

<sup>&</sup>lt;sup>1</sup>Refer to tank mix product labels for specific directions.

# **TANK MIX RESTRICTIONS**

Tank mixes with flufenacet, metolachlor or s-metolachlor, dimethenamid or dimethenamid-p, alachlor, or acetochlor may result in injury to field corn when application is followed by prolonged periods of cool wet weather and must not be used with Tacoma Aq Flumi 51 Herbicide.

## **DIRECTIONS FOR USE IN FIELD PEAS**

# WEED CONTROL RESTRICTIONS

- Do not apply more than 2 oz. of Tacoma Ag Flumi 51 (0.064 lb. a.i.) per acre during a single application.
- Do not apply more than 2 oz. of Tacoma Ag Flumi 51 (0.064 lb. a.i.) per acre per year.

Many weather related factors, including high wind, splashing or heavy rains or cool conditions at or near crop emergence, may result in pea injury in fields treated with Tacoma Ag Flumi 51. On occasion this has resulted in a delay in maturity.

#### **TIMING TO FIELD PEAS**

Tacoma Ag Flumi 51 may be applied to field peas within 2 days after planting for the preemergence control of the weeds listed in Table 1, Broadleaf Weeds Controlled by Residual Activity of Tacoma Ag Flumi 51 or Table

8, Weeds Suppressed by Residual Activity of Tacoma Ag Flumi 51. Tank mix Tacoma Ag Flumi 51 with other labeled herbicides for broad spectrum weed control.

#### TIMING TO WEEDS

Tacoma Ag Flumi 51 may be applied to field peas prior to planting or preemergence (after planting). Preemergence application of Tacoma Ag Flumi 51 must be made within 2 days after planting and prior to field pea emergence. To avoid severe crop injury, do not apply to field peas after peas begin to crack or have emerged.

Preplant incorporation (PPI) applications may result in reduced weed control.

# ADDITIONAL RESIDUAL GRASS CONTROL

Tacoma Ag Flumi 51 Herbicide can be tank mixed with pendimethalin for additional grass control.

# HARVEST AID RESTRICTIONS

- Do not apply more than 3 oz. of Tacoma Ag Flumi 51 (0.096 lb. a.i.) per acre during a single application.
- Do not apply more than 3 oz. of Tacoma Ag Flumi 51 (0.096 lb. a.i.) per acre per year.
- Do not harvest within 5 days of application.

Desiccation from Tacoma Ag Flumi 51 requires the addition of an agronomically approved adjuvant to the spray mixture. Use a methylated seed oil which contains at least 15% emulsifiers and 80% oil at 1 qt/A. A spray grade nitrogen source (either ammonium sulfate at 2 to 2.5 lbs/A or a 28 to 32% nitrogen solution at 1 to 2 qts/A) may be added to the spray mixture along with methylated seed oil to enhance desiccation. The addition of a nitrogen source does not replace the need for methylated seed oil. Tank mixing Tacoma Ag Flumi 51 with glyphosate will increase control of emerged weeds and aid in harvest.

#### **TIMING TO FIELD PEAS**

Apply Tacoma Ag Flumi 51, at 1.5 to 2 oz./A, when crop is physiologically mature and a minimum of 80% of the pods are yellow to tan in color and 20% are yellow in color. If field peas are treated too early, a reduction in seed quality may occur. Do not spray Tacoma Ag Flumi 51 on any area of the field with a significant amount of plants with green color. Peas can be harvested 5 days after application.

To ensure thorough coverage, use 15 to 30 gallons of spray solution per acre and select nozzle type using manufacturer's gallonage and pressure recommendations for postemergence application.

# **DIRECTIONS FOR USE IN FLAX**

# HARVEST AID RESTRICTIONS

- Do not apply more than 3 oz. of Tacoma Ag Flumi 51 (0.096 lb. a.i.) per acre during a single application.
- Do not apply more than 3 oz. of Tacoma Ag Flumi 51 (0.096 lb. a.i.) per acre per year.
- Do not harvest within 5 days of application.

Desiccation from Tacoma Ag Flumi 51 requires the addition of an agronomically approved adjuvant to the spray mixture. Use a methylated seed oil which contains at least 15% emulsifiers and 80% oil at 1 qt./A. A spray grade nitrogen source (either ammonium sulfate at 2 to 2.5 lbs./A or a 28 to 32% nitrogen solution at 1 to 2 qts./A) may be added to the spray mixture along with methylated seed oil to enhance desiccation. The addition of a nitrogen source does not replace the need for methylated seed oil.

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#### TIMING TO FLAX

Apply Tacoma Ag Flumi 51, at 1.5 to 2 oz./A, when crop is physiologically mature and at least 75% of the bolls are brown in color. Flax can be harvested 5 days after application.

To ensure thorough coverage, use 15 to 30 gallons of spray solution per acre and select nozzle type using manufacturer's gallonage and pressure recommendations for postemergence application.

## **DIRECTIONS FOR USE IN FRUITING VEGETABLES**

Includes: African eggplant; Bush Tomato; Bell Pepper; Cocona; Currant Tomato; Eggplant, Garden; Huckleberry; Goji Berry; Groundcherry, Martynia; Naranilla; Okra, Pea Eggplant; Pepino; Nonbell Pepper; Roselle; Scarlet Eggplant; Sunberry; Tomatillo; Tomato; Tree Tomato; cultivars, varieties and/or hybrids of these.

Many weather related factors, including high wind or heavy rains or cool conditions at or near crop transplanting, may result in crop injury in fields treated with this product. On occasion this has resulting in a delay in maturity.

# **RESTRICTIONS**

- Do not apply more than 4 oz. of Tacoma Ag Flumi 51 (0.128 lb. a.i.) per acre during a single application.
- Do not apply more than 8 oz. of Tacoma Ag Flumi 51 (0.255 lb. a.i.) per acre per year.

# **ROW MIDDLES**

# FOR DISTRIBUTION AND USE ONLY WHERE THIRD PARTY INDEMNIFACATION IS IN EFFECT PRECAUTIONS

- Grow plants on raised or plastic mulched beds that are higher than the treated row middle.
- Spray must be directed to the row middle, away from the crop bed and with minimal contact with plastic, including the sides of the bed. If top of mulch beds (where plants are to be transplanted) is contacted, severe injury can occur due to foliage contact with treated plastic. In this scenario, a rainfall even of 1/2 inch (natural or irrigation) must occur prior to transplanting to reduce Tacoma Ag Flumi 51 residues.
- Injury can occur if soil particles treated with this product contact the crop.
- Irrigate treated fields after application and prior to transplanting with minimum of 1/4 inch of water if rainfall does not occur between application and transplanting.
- All applications must be made with hooded or shielded equipment.

#### TIMING TO FRUITING VEGETABLES

Apply Tacoma Ag Flumi 51 at 4 oz. per acre as a hooded or shielded application to row middles up to 14 days prior to transplanting or seeding for preemergence control of the weeds listed in Table 7, Weeds Controlled by Residual Activity of Tacoma Ag Flumi 51, as well as to assist in the postemergence control of emerged weeds. A second application of Tacoma Ag Flumi 51 at 4 oz. per acre may be applied up to 21 days after transplanting or emergence if needed. Do not apply during or after bloom.

## **TIMING TO WEEDS**

Tacoma Ag Flumi 51 may be used for residual weed control, as well as to assist in postemergence burndown of many annual and perennial weeds in row middles. A registered preemergence grass herbicide may be added for control of additional grassy weeds. For assisting in the control of emerged weeds, tank mix

Tacoma Ag Flumi 51 with paraquat, carfentrazone-ethyl or other registered burndown herbicide. Do not tank mix with glyphosate after transplanting or crop emergence. Refer to tank mix partner's label for specified rate and application parameters.

#### **DIRECTIONS FOR USE IN GARLIC**

#### **RESTRICTIONS**

- Do not apply more than 6 oz. of Tacoma Ag Flumi 51 (0.191 lb. a.i.) per acre during a single application.
- Do not apply more than 6 oz. of Tacoma Ag Flumi 51 (0.191 lb. a.i.) per acre per year.

#### **TIMING TO GARLIC**

Tacoma Ag Flumi 51 may be applied, at 6 oz./A, to garlic prior to garlic emergence. Apply within 3 days after planting garlic.

#### **TIMING TO WEEDS**

# **Preemergence - Preemergence to Weeds**

Apply Tacoma Ag Flumi 51 to weed free garlic for preemergence control of the weeds listed in Table 10, Weeds Controlled by Preemergence Application of Tacoma Ag Flumi 51.

## **DIRECTIONS FOR USE IN HOPS**

# Not For Use in California or New York

#### RESTRICTIONS

- Do not apply more than 6 oz. of Tacoma Ag Flumi 51 (0.191 lb. a.i.) per acre during a single application.
- Do not apply more than 6 oz. of Tacoma Ag Flumi 51 (0.191 lb. a.i.) per acre per year.
- Do not allow spray to contact green stem (unless used for sucker control), foliage, flowers or cones or unacceptable injury may occur.
- Do not apply within 30 days of harvest.
- Do not use with an adjuvant.

Tacoma Ag Flumi 51 can be used in hops for preemergence weed control as well as sucker control.

## TIMING TO HOPS FOR SUCKER CONTROL

Apply Tacoma Ag Flumi 51 at 6 oz./A as a directed application after hops have reached a minimum of 6 feet in height for sucker control. Direct application to the lower 2 feet of the hops.

# TIMING TO HOPS FOR PREEMERGENCE WEED CONTROL

Apply Tacoma Ag Flumi 51 at 6 oz./A as a 1 to 1.5 foot band to each side of the hop row, to dormant hops January thru March to ensure time for rain incorporation and activation. If weeds are emerged at the time of application, tank mix Tacoma Ag Flumi 51 with a labeled burndown herbicide such as paraquat or glyphosate to assist with control of emerged weeds. Do not mow or rake over treated areas, as dust created by mowing may drift onto sensitive crops or vegetation resulting in injury.

## **TIMING TO WEEDS**

Tacoma Ag Flumi 51 applications must be made prior to weed emergence for control of weeds listed in Table 10, Weeds Controlled by Preemergence Application of Tacoma Ag Flumi 51.

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. Tacoma Ag Flumi 51, when applied according to label use directions, will control the weeds listed in Table 10, Weeds Controlled by Preemergence Application of Tacoma Ag Flumi 51. This label makes no claims concerning control of other weed species.

#### **DIRECTIONS FOR USE IN LENTILS**

# HARVEST AID RESTRICTIONS

- Do not apply more than 3 oz. of Tacoma Ag Flumi 51 (0.096 lb. a.i.) per acre during a single application.
- Do not apply more than 3 oz. of Tacoma Ag Flumi 51 (0.096 lb. a.i.) per acre per year.
- Do not harvest within 5 days of application.

Desiccation from Tacoma Ag Flumi 51 requires the addition of an agronomically approved adjuvant to the spray mixture. Use a methylated seed oil which contains at least 15% emulsifiers and 80% oil at 1 qt./A. A spray grade nitrogen source (either ammonium sulfate at 2 to 2.5 lbs./A or a 28 to 32% nitrogen solution at 1 to 2 qts./A) may be added to the spray mixture along with methylated seed oil to enhance desiccation. The addition of a nitrogen source does not replace the need for methylated seed oil. Tank mixing Tacoma Ag Flumi 51 with glyphosate or paraquat will increase control of emerged weeds and aid in harvest.

#### TIMING TO LENTILS

Apply Tacoma Ag Flumi 51, at 1.5 to 2 oz./A, when crop is physiologically mature and a minimum of 80% of the pods are yellow to tan in color and 20% are yellow in color. If lentils are treated too early, a reduction in seed quality may occur. Do not spray Tacoma Ag Flumi 51 on any area of the field with a significant amount of plants with green color. Lentils can be harvested 5 days after application.

To ensure thorough coverage, use 15 to 30 gallons of spray solution per acre and select nozzle type using manufacturer's gallonage and pressure recommendations for postemergence application.

# **DIRECTIONS FOR USE IN MINT**

(Peppermint and Spearmint)

#### **RESTRICTIONS**

- Do not apply more than 4 oz. of Tacoma Ag Flumi 51 (0.128 lb. a.i.) per acre during a single application.
- Do not apply more than 8 oz. of Tacoma Ag Flumi 51 (0.255 lb. a.i.) per acre per year.
- Do not make a sequential Tacoma Ag Flumi 51 application within 60 days of the first Tacoma Ag Flumi 51 application.
- Apply only to dormant mint. Application to non-dormant mint may result in unacceptable crop injury.
- Do not apply within 80 days of harvest.

# To avoid crop injury:

- Do not apply to stands established longer than 3 years.
- Do not apply a Fall application if roots and rhizomes are weak, thin or damaged.

- Do not apply Tacoma Ag Flumi 51 on mint in Southern Union County (south Ladd Canyon) or Baker County in Oregon.
- Do not apply to row or baby mint, use only on established meadow mint.
- Do not apply to mint that has been weakened by diseases, insects (example mint root borer), nematodes, drought, soil salts, high soil pH, previous pesticides, winter injury or double cutting, as severe injury may occur. Apply only to healthy vigorous mint with undamaged rhizomes.
- Do not apply before November 25 or after March 1.

Many weather related factors, including high wind, splashing or heavy rains or cool conditions at or near mint emergence, may result in mint injury in fields treated with Tacoma Ag Flumi 51.

Tank mixes with labeled rates of paraquat are advised to control emerged weeds and increase crop safety.

#### **TIMING TO MINT**

As a spray, Tacoma Ag Flumi 51 may be applied only to established, dormant mint for preemergence control of the weeds listed in Table 7 as well as to assist in the postemergence control of emerged weeds. Application to non-dormant mint or to baby (row) mint (time from planting of mint roots through the first cutting), may result in unacceptable crop injury. As a bulk fertilizer application, Tacoma Ag Flumi 51 may be applied at least 80 days prior to harvest. Leaves must be dry at the time of applications or severe injury may occur.

#### **TIMING TO WEEDS**

# **Burndown - Dormant Mint, Postemergence To Weeds**

Tacoma Ag Flumi 51 may be used for residual weed control, as well as to assist in postemergence burndown of many annual and perennial weeds where established mint is dormant. For control of emerged weeds, tank mix Tacoma Ag Flumi 51 with paraquat. Refer to paraquat label for specified rate and application parameters. To ensure thorough coverage, use a minimum of 15 gals. of spray solution per acre. Tacoma Ag Flumi 51 tank mixes applied to assist in the control of emerged weeds must be applied with a non-ionic surfactant at 0.25% v/v. A spray grade nitrogen source (either ammonium sulfate at 2 to 2.5 lbs./A or 28 to 32% nitrogen solution at 1 to 2 qts./A) may be added to increase herbicidal activity.

#### **Preemergence – Dormant Mint, Preemergence To Weeds**

Apply Tacoma Ag Flumi 51 to dormant mint for the preemergence control of weeds listed in Table 7. Fall application of Tacoma Ag Flumi 51, followed by a sequential application in the Spring, have resulted in better Summer annual weed control than a single Fall or single Spring application.

Fall application is most effective for Fall germinating weeds such as groundsel. Fields plowed or harrowed after a Tacoma Ag Flumi 51 application will result in less effective preemergence activity. In furrow irrigated fields, corrugating that is done after a Tacoma Ag Flumi 51 application will expose untreated soil and break the herbicide barrier resulting in poor weed control.

Table 7. Weeds Controlled by Residual Activity of Tacoma Ag Flumi 51

COMMON NAME	SCIENTIFIC NAME	ORGANIC MATTER	SOIL TYPE	TACOMA AG FLUMI 51
Bristly Starbur	Acanthospermum hispidum	Up to 5%	All Soil Types	RATE 4 oz./A
Carpetweed	Mollugo verticillata	Op 10 370	All ooli Types	7 02.//
Chickweeds	monago vortioniata	$\dashv$		
Common	Stellaria media	$\dashv$		
Mouseear	Cerastium vulgatum	$\dashv$		
Coffee Senna	Cassia occidentalis	$\dashv$		
Copperleaf, Hophornbeam	Acalypha ostryifolia	7		
Dandelion	Taraxacum officinale			
Dodder (suppression only) <sup>1</sup>	Cuscuta spp.	7		
Eclipta	Eclipta prostrate			
Eveningprimrose, Cutleaf	Oenothera laciniata			
False Chamomile	Tripleurospermum maritima	7		
Fiddleneck, Coast	Amsinckia menziesii			
Field Pennycress	Thlaspi arvense			
Fleabane, Hairy	Conyza bonariensis	7		
Flixweed	Descurainia spophia	7		
Florida Beggarweed	Desmodium tortuosum	7		
Florida Pusley	Richardia scabra			
Golden Crownbeard	Verbesina encelioides	7		
Groundsel, Common	Senecio vulgaris			
Hairy Indigo	Indigofera hirsuta			
Hemp Sesbania	Sesbania exaltata			
Henbit	Lamium amplexicaule			
Jimsonweed	Datura stramonium			
Kochia	Kochia scoparia			
Lambsquarters, Common	Chenopodium album			
Little Mallow	Malva parviflora			
London Rocket	Sisymbrium irio			
Marestail/Horseweed	Conyza Canadensis			
Mayweed/False Chamomile	Matricaria maritima			

<sup>&</sup>lt;sup>1</sup>Tacoma Ag Flumi 51 at 4 oz./A will provide postemergence dodder suppression when applied in combination with imazethapyr, ammonium salt or imazamox at labeled rates. The use of imazethapyr, ammonium salt and imazamox require the use of a NIS, which will result in burn and stunting of alfalfa. Growers must expect and accept this prior to using this tank mix.

Table 7. Weeds Controlled by Residual Activity of Tacoma Ag Flumi 51 (continued)

BROADLEAF WEED S	BROADLEAF WEED SPECIES					
COMMON NAME	SCIENTIFIC NAME	ORGANIC MATTER	SOIL TYPE	TACOMA AG FLUMI 51 RATE		
Morningglories		Up to 5%	All Soil Types	4 oz./A		
Entireleaf	Ipomoea hederacea var. integriuscula					
lvyleaf	Ipomoea hederacea					
Red/Scarlet	Ipomoea coccinea					
Smallflower	Jacquemontia tamnifolia					
Tall	Ipomoea purpurea					
Mustard						
Tansy	Descurainia pinnata					
Tumble	Sisymbrium altissimum					
Wild	Brassica kaber					
Nettle, Burning	Urtica urens					
Nightshades						
Black	Solanum nigrum					
Eastern Black	Solanum ptycanthum					
Hairy	Solanum sarrachoides					
Pigweeds						
Palmer Amaranth	Amaranthus palmeri					
Redroot	Amaranthus retroflexus					
Smooth	Amaranthus hybridus					
Spiny Amaranth	Amaranthus spinosus					
Tumble	Amaranthus albus					
Prickly Lettuce	Lactuca serriola					
(China Lettuce)						
Prickly Sida (Teaweed)	Sida spinosa					
Sowthistle, Prickly	Sonchus asper					
Puncturevine	Tribulus terrestris					
Purslane						
Common	Portulaca oleracea					
Horse	Trianthema portulacastrum					
Radish, Wild	Raphanus raphanistrum					
Ragweed, Common	Ambrosia artemisiifolia					
Redmaids	Calandrinia ciliata var. menziesii					
Russian Thistle	Salsola iberica					

Table 7. Weeds Controlled by Residual Activity of Tacoma Ag Flumi 51 (continued)

<b>BROADLEAF WEED SF</b>	PECIES			
COMMON NAME	SCIENTIFIC NAME	ORGANIC MATTER	SOIL TYPE	TACOMA AG FLUMI 51 RATE
Shepherd's-purse	Capsella bursa-pastoris	Up to 5%	All Soil Types	4 oz./A
Smartweeds				
Ladysthumb	Polygonum persicaria			
Pennsylvania	Polygonum pensylvanicum			
Smellmelon	Cucumis melo			
Spotted Spurge	Euphorbia maculata			
Spurred Anoda	Anoda cristata			
Tropic Croton	Croton glandulosus			
Velvetleaf	Abutilon theophrasti			
Venice Mallow	Hibiscus trionum			
Waterhemps				
Common	Amaranthus rudis			
Tall	Amaranthus tuberculatus			
White Cockle	Silene latifolia			
Wild Poinsettia	Euphorbia heterophylla			
Wormwood, Biennial	Artemisia biennis			
Yellow Rocket	Barbarea vulgaris			
<b>GRASS WEED SPECIE</b>	S			
Barnyardgrass	Echinochloa crus-galli			
Bluegrass, Annual	Poa annua			
Crabgrass, Large	Digitaria sanguinalis			
Foxtail, Giant	Setaria faberi			
Goosegrass	Eleusine indica			
Lovegrass, California	Eragrostis diffusa			
Panicums				
Fall	Panicum dichotomiflorum			
Texas	Panicum texanum			
Ryegrass, Italian	Lolium multiflorum			
Signalgrass, Broadleaf	Brachiaria platyphylla			

# **DIRECTIONS FOR USE IN ONION (DRY BULB)**

# For Use in the States of Michigan, New York North Dakota and Wisconsin Only

#### RESTRICTIONS

- Do not apply more than 2 oz. of Tacoma Ag Flumi 51 (0.064 lb. a.i.) per acre during a single application.
- Do not apply more than 3 oz. of Tacoma Ag Flumi 51 (0.096 lb. a.i.) per acre per year.
- Do not make sequential application within 14 days of the first application.
- Do not apply within 45 days of harvest.
- Do not apply more than 1 oz. of Tacoma Ag Flumi 51 (0.032 lb. a.i.) per year on soils that contain greater than 90% sand plus gravel.
- Do not apply as part of a tank mix, other than with pendimethalin, or unacceptable injury may result.

  Other formulations of pendimethalin must not be tank mixed with Tacoma Ag Flumi 51 for use in onions.
- Do not apply with any type of adjuvant.

# Use of Tacoma Ag Flumi 51 may result in necrotic spotting of onion leaves that come in contact with the spray.

#### **Microrate Application**

Sequential applications of Tacoma Ag Flumi 51 may be applied to onions (dry bulb), between the 2-leaf and 6-leaf stage, at rates of 0.5 to 1 oz./A, on a 7 day interval.

# **TIMING TO ONIONS (dry bulb)**

Apply Tacoma Ag Flumi 51 to transplanted onions (dry bulb) between the 2-leaf and 6-leaf stage and on direct seed onions (dry bulb) between the 3-leaf and 6-leaf stage.

# **TIMING TO WEEDS**

# Preemergence - Emerged Onions (dry bulb), Preemergence To Weeds

Apply Tacoma Ag Flumi 51 to weed free onions (dry bulb) for preemergence control of the weeds listed in Table 1, Section A.

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. Tacoma Ag Flumi 51, when applied according to label use directions, will control the weeds listed in Table below.

#### **CHEMIGATION**

Tacoma Ag Flumi 51 may be applied through sprinkler irrigation systems in onions (dry bulb). Follow all label directions for these crops regarding rates, timing of application, special instructions and precautions.

Apply this product only through center pivot systems. End guns must be turned off due to uneven application. Do not apply this product through any other type of irrigation system.

Crop injury, lack of efficacy or illegal pesticide residues in the crop can result from non-uniform distribution of treated water.

The system must be properly calibrated (with water only) to ensure that the amount of Tacoma Ag Flumi 51 applied corresponds to the specified rate.

Apply Tacoma Ag Flumi 51 in ½ to ¾ inches of water during the first sprinkler set. Allow time for all lines to flush the herbicide through all nozzles before turning off irrigation water. To ensure the lines are flushed and free of remaining herbicide, a dye indicator may be injected into the lines to mark the end of the application period. Once chemigation has begun, the run must be completed to ensure no product is left in the system.

If you have any questions about calibration, contact your State Extension Service Specialist, equipment manufacturers or other experts.

# **Chemigation Restrictions**

- 1. Do not connect an irrigation system (including greenhouse systems) used for pesticide application to a public water system unless the pesticide label-prescribed safety devices for public water systems are in place.
- 2. A person knowledgeable of the chemigation system and responsible for its operation or under the supervision of the responsible person, shall shut the system down and make necessary adjustments should the need arise.
- 3. The system must be free of leaks and clogged nozzles.
- 4. The pesticide must be supplied continuously for the duration of the aqueous application. An uneven application may cause injury to the crop or poor weed control.
- 5. Agitation must be maintained in the nurse tank.
- 6. The sprinkler chemigation system must contain a functional check valve, vacuum relief valve and low pressure drain appropriately located on the irrigation pipeline to prevent water source contamination from backflow.
- 7. The pesticide injection pipeline must contain a functional, automatic, quick closing check valve to prevent the flow of fluid back toward the injection pump.
- 8. The pesticide injection pipeline must contain a functional, normally closed, solenoid operated valve located on the intake side of the injection pump and connected to the system interlock to prevent fluid from being withdrawn from the supply tank when the irrigation system is either automatically or manually shut down.
- 9. The system must contain functional interlocking controls to automatically shut off the pesticide injection pump when the water pump motor stops, or in the case where there is no water pump, when the water pressure decreases to the point where pesticide distribution is adversely affected.
- 10. The irrigation line or water pump must include a functional pressure switch which will stop the water pump motor when the water pressure decreases to the point where pesticide distribution is adversely affected.
- 11. Systems must use a metering pump, such as a positive displacement injection pump (e.g., diaphragm pump), effectively designed and constructed of materials that are compatible with the pesticides and capable of being fitted with a system interlock.
- 12. Do not apply when wind speed favors drift beyond the area intended for treatment.

## **Chemigation Systems Connected to Public Water Systems**

- 1. Public water system means a system for the provision to the public of piped water for human consumption, if such a 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.
- 2. Chemigation systems connected to the public water system must contain a functional, reduced pressure zone, backflow preventer (RPZ) or the functional equivalent in the water supply line upstream from the point of pesticide introduction. As an option to the RPZ, discharge the water from the public water system into a reservoir tank prior to pesticide introduction. There shall be a complete physical break (air gap) between the outlet end of the fill pipe and the top overflow rim of the reservoir tank of at least twice the inside diameter of the fill pipe.
- 3. All chemigation systems connected to the public water system must also follow restrictions listed in the preceding section titled "Special Precautions for Chemigation".

# **DIRECTIONS FOR USE IN PEANUT**

#### **RESTRICTIONS**

- Do not apply more than 3 oz. of Tacoma Ag Flumi 51 (0.096 lb. a.i.) per acre per year.
- Do not irrigate when peanuts are cracking.
- Do not graze treated fields or feed treated hay to livestock.
- In California, refer to the section "DIRECTIONS FOR USE IN FALL AND SPRING PREPLANT BURNDOWN AND FALLOW SEEDBED PROGRAMS IN FIELD CORN, PEANUT AND SOYBEAN" on this label.
- Do not apply more than 2 oz./A (0.064 lb. a.i.) in the states of North Carolina, Oklahoma or Virginia where climatic conditions may result in unacceptable injury to peanuts except as described in the NORTH CAROLINA, OKLAHOMA AND VIRGINIA ONLY – PREEMERGENCE APPLICATION IN PEANUT section below.

#### **PRECAUTIONS**

Many weather related factors, including high wind, splashing or heavy rains or cool conditions at or near peanut emergence, may result in peanut injury in fields treated with Tacoma Ag Flumi 51. On occasion this has resulted in a delay in maturity or even a slight decrease in yield.

#### WIND MANAGEMENT

In areas where shallow cultivation is used between rows to reduce wind-borne sand damage to peanuts, weed control from Tacoma Ag Flumi 51 may be reduced.

#### **TIMING TO PEANUTS**

Tacoma Ag Flumi 51 may be applied to peanuts prior to planting or preemergence (after planting). Preemergence applications of Tacoma Ag Flumi 51 must be made within 2 days after planting and prior to peanut emergence. Application after the peanuts have begun to crack, or are emerged, will result in severe crop injury. Application must not be made when peanuts have begun to crack. Select Tacoma Ag Flumi 51 rate from Table 1 according to anticipated weed spectrum.

# **TIMING TO WEEDS**

# **Burndown - Preemergence to Peanuts, Postemergence to Weeds**

Tacoma Ag Flumi 51, applied as part of a burndown program, may be used for residual weed control, as well

as to assist in postemergence burndown of many annual and perennial weeds where peanuts will be planted directly into a stale seedbed, cover crop or in previous crop residues. Apply Tacoma Ag Flumi 51 before planting, during planting or after planting, but before the crop emerges. For control of emerged weeds, tank mix Tacoma Ag Flumi 51 with glyphosate. Refer to glyphosate label for specified rate and application pressure. To ensure thorough coverage, use a minimum of 15 gals. of spray solution per acre. Tacoma Ag Flumi 51 tank mixes applied to assist in the control of emerged weeds must be applied with an adjuvant, such as a non-ionic surfactant at 0.25% v/v or a crop oil concentrate or a methylated seed oil at 1 to 2 pt./A. A spray grade nitrogen source (either ammonium sulfate at 2 to 2.5 lbs./A or 28 to 32% nitrogen solution at 1 to 2 qts./A) may be added to increase herbicidal activity.

Preemergence (conventional tillage) application of Tacoma Ag Flumi 51 must be applied prior to weed emergence.

#### ADDITIONAL RESIDUAL GRASS CONTROL: SEQUENTIAL

Tacoma Ag Flumi 51 may be applied sequentially following a preplant incorporated application of trifluralin (states of New Mexico, Oklahoma and Texas only), ethalfluralin, metolachlor, pendimethalin or dimethenamid.

#### ADDITIONAL RESIDUAL GRASS CONTROL: TANK MIXED

Tacoma Ag Flumi 51 can be tank mixed with alachlor, metolachlor or dimethanamid for additional grass and broadleaf weed control. Tacoma Ag Flumi 51 can also be tank mixed with pendimethalin or ethalfluralin in states where they are labeled, provided overhead irrigation guidelines on the pendimethalin and/or ethalfluralin labels are followed.

**NORTH CAROLINA, OKLAHOMA AND VIRGINIA ONLY – PREEMERGENCE APPLICATION IN PEANUT**Do not apply more than 2 oz./A in these states where climactic conditions may result in unacceptable injury to peanuts, except as described below.

Tacoma Ag Flumi 51, at 3 oz. per acre, can be applied within 2 days of planting to control common ragweed, tropic croton and entireleaf, ivyleaf and tall/scarlet morningglories. Cool temperatures near emergence (2 consecutive nighttime lows in the 50's F) in combination with heavy rainfall may result in severe crop injury. Use Tacoma Ag Flumi 51, at 3 oz./A, in these states when other alternatives are not available for adequate control of the weeds listed on this label and the user acknowledges the risks associated with this use rate under the adverse environmental conditions listed above.

## **DIRECTIONS FOR USE IN POTATO**

For Use Only in Arizona, California, Colorado, Delaware, Florida, Hawaii, Idaho, Maryland, Minnesota, Montana, Nebraska, Nevada, New Jersey, New Mexico, North Carolina, North Dakota, Oregon, South Carolina, South Dakota, Texas, Utah, Virginia, Washington, Washington DC and Wyoming

#### **RESTRICTIONS**

- Do not apply more than 1.5 oz. of Tacoma Ag Flumi 51 (0.048 lb. a.i.) per acre during a single application.
- Do not apply more than 1.5 oz. of Tacoma Ag Flumi 51 (0.048 lb. a.i.) per acre per year.
- Do not apply to Rill (Furrow) irrigated potatoes.

#### **PRECAUTION**

Many weather related factors, including high wind, splashing or heavy rains or cool conditions at or near potato emergence, may result in potato injury in fields treated with Tacoma Ag Flumi 51. On occasion this has resulted in a delay in maturity.

#### TIMING TO POTATOES

Tacoma Ag Flumi 51 may be applied to potatoes after hilling for the preemergence suppression of the weeds listed in Table 8. Tacoma Ag Flumi 51 may be tank mixed with other labeled herbicides for broad spectrum weed control. A minimum of 2 inches of settled soil must cover the vegetative portion of the potato plant at the time of Tacoma Ag Flumi 51 application. Application to potatoes with less than 2 inches of soil covering the vegetative portion of the potato may result in crop injury. In areas with historically higher amounts of rainfall during the time of preemergence herbicide applications, such as the Red River Valley, Minnesota and North Dakota, the requirement for 2 inches of settled soil is critical to avoid crop injury. Mechanical incorporation of Tacoma Ag Flumi 51 will result in decreased weed control and must be avoided. In areas with sprinkler irrigation, incorporate Tacoma Ag Flumi 51 with 0.25 to 0.75 inches of irrigation, after application and before <u>any</u> sprouts are within 2 inches of the settled soil surface if a rainfall event has not yet occurred.

#### **TIMING TO WEEDS**

# **Preemergence – Soil Covered Potatoes, Preemergence To Weeds**

Apply Tacoma Ag Flumi 51 to soil covered potatoes for the preemergence suppression of the weeds listed in Table 8. Harrowing, cultivation or corrugating after Tacoma Ag Flumi 51 application will reduce weed control.

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

#### **CHEMIGATION**

Tacoma Ag Flumi 51 may be applied through sprinkler irrigation systems in potatoes. Follow all label directions for this crop regarding rates, timing of application, special instructions and precautions.

Apply this product only through center pivot systems. End guns must be turned off due to uneven application. Do not apply this product through any other type of irrigation system.

Crop injury, lack of efficacy or illegal pesticide residues in the crop can result from non-uniform distribution of treated water.

The system must be properly calibrated (with water only) to ensure that the amount of Tacoma Ag Flumi 51 applied corresponds to the specified rate.

Apply Tacoma Ag Flumi 51 in ½ to ¾ inches of water during the first sprinkler set. Allow for time for all lines to flush the herbicide through all nozzles before turning off irrigation water. To ensure the lines are flushed and free of remaining herbicide, a dye indicator may be injected into the lines to mark the end of the application period. Once chemigation has begun, the run must be completed to ensure no product is left in the system.

If you have any questions about calibration, contact your State Extension Service Specialist, equipment manufacturers or other experts.

#### **Chemigation Restrictions**

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

- 2. A person knowledgeable of the chemigation system and responsible for its operation or under the supervision of the responsible person, shall shut the system down and make necessary adjustments should the need arise.
- 3. The system must be free of leaks and clogged nozzles.
- 4. The pesticide must be supplied continuously for the duration of the aqueous application. An uneven application may cause injury to the crop or poor weed control.
- 5. Agitation must be maintained in the nurse tank.
- 6. The sprinkler chemigation system must contain a functional check valve, vacuum relief valve and low pressure drain appropriately located on the irrigation pipeline to prevent water source contamination from backflow.
- 7. The pesticide injection pipeline must contain a functional, automatic, quick closing check valve to prevent the flow of fluid back toward the injection pump.
- 8. The pesticide injection pipeline must contain a functional, normally closed, solenoid operated valve located on the intake side of the injection pump and connected to the system interlock to prevent fluid from being withdrawn from the supply tank when the irrigation system is either automatically or manually shut down.
- 9. The system must contain functional interlocking controls to automatically shut off the pesticide injection pump when the water pump motor stops, or in the case where there is no water pump, when the water pressure decreases to the point where pesticide distribution is adversely affected.
- 10. The irrigation line or water pump must include a functional pressure switch which will stop the water pump motor when the water pressure decreases to the point where pesticide distribution is adversely affected.
- 11. Systems must use a metering pump, such as positive displacement injection pump (e.g., diaphragm pump), effectively designed and constructed of materials that are compatible with the pesticides and capable of being fitted with a system interlock.
- 12. Do not apply when wind speed favors drift beyond the area intended for treatment.

# **Chemigation Systems Connected to Public Water Systems**

- 1. Public water system means a system for the provision to the public of piped water for human consumption, if such a 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.
- 2. Chemigation systems connected to the public water system must contain a functional, reduced pressure zone, backflow preventer (RPZ) or the functional equivalent in the water supply line upstream from the point of pesticide introduction. As an option to the RPZ, discharge the water from the public water system d into a reservoir tank prior to pesticide introduction. There shall be a complete physical break (air gap) between the outlet end of the fill pipe and the top overflow rim of the reservoir tank of at least twice the inside diameter of the fill pipe.
- 3. All chemigation systems connected to the public water system must also follow restrictions listed in the preceding section titled "Special Precautions for Chemigation".

Table 8. Weeds Suppressed by Residual Activity of Tacoma Ag Flumi 51 at 1.5 oz/A

COMMON NAME	SCIENTIFIC NAME	ORGANIC MATTER	Tacoma Ag Flumi 51 HERBICIDE RATE
Lambsquarters, Common	Chenopodium album	Up to 5%	1.5 oz./A
Mustard, Wild	Brassica kaber		
Nightshades			
Black	Solanum nigrum		
Eastern Black	Solanum ptycanthum		
Hairy	Solanum sarrachoides		
Pigweeds			
Palmer Amaranth	Amaranthus palmeri		
Redroot	Amaranthus retroflexus		
Smooth	Amaranthus hybridus		
Spiny Amaranth	Amaranthus spinosus		
Tumble	Amaranthus albus		
Prickly Lettuce (China Lettuce)	Lactuca serriola		
Radish, Wild	Raphanus raphanistrum		

#### **DIRECTIONS FOR USE IN SOYBEAN**

#### **RESTRICTIONS**

- Do not apply more than 3 oz of Tacoma Ag Flumi 51 (0.096 lb. a.i.) per acre per year.
- Do not graze treated fields or feed treated hay to livestock for 21 days following application of this product.
- Do not tank mix Tacoma Ag Flumi 51 with flufenacet, metolachlor or dimethenamid within 14 days of planting soybeans, unless soybeans are planted under no-till or minimum tillage conditions on wheat stubble or no-till field corn stubble.
- Do not irrigate when soybeans are cracking.
- In California, refer to the section DIRECTIONS FOR USE IN FALL AND SPRING PREPLANT BURNDOWN AND FALLOW SEEDBED PROGRAMS IN FIELD CORN, PEANUT AND SOYBEAN in this label.

#### **TIMING TO SOYBEANS**

Tacoma Ag Flumi 51 may be applied to soybeans prior to planting or preemergence (after planting). Preemergence application of Tacoma Ag Flumi 51 must be made within 3 days after planting and prior to soybean emergence. Application after the soybeans have begun to crack, or are emerged, will result in severe crop injury. Application must not be made when soybeans have begun to crack. Select Tacoma Ag Flumi 51 rate from Table 1 according to anticipated weed spectrum.

#### **TIMING TO WEEDS**

#### Burndown - Preemergence to Soybeans, Postemergence to Weeds

Tacoma Ag Flumi 51, applied as part of a burndown program, may be used for residual weed control, as

well as to assist in postemergence burndown of many annual and perennial weeds where soybeans will be planted directly into a stale seedbed, cover crop or in previous crop residues. For control of emerged weeds, choose the most appropriate tank mix partner from Table 9. Apply Tacoma Ag Flumi 51 with ground equipment before planting, during planting or within 3 days after planting, **but before the crop emerges**. To ensure thorough coverage, use a minimum of 15 gals. of spray solution per acre. Refer to tank mix partner's label for recommended application pressure. All Tacoma Ag Flumi 51 tank mixes applied to assist in the control of emerged weeds must be applied with crop oil concentrate or methylated seed oil at 1 to 2 pt./A or a non-ionic surfactant at 0.25% v/v.

#### INCREASING SPEED OF GLYPHOSATE BURNDOWN ACTIVITY

Tacoma Ag Flumi 51, at rates as low as 1 oz./A, may be tank mixed with glyphosate to increase the speed of burndown activity compared to glyphosate applied alone. Residual weed control will not be provided at rates lower than 2 oz./A; however, suppression of the weeds in Table 2, may occur at Tacoma Ag Flumi 51 rates as low as 1 oz./A.

#### **TANK MIXES**

Tacoma Ag Flumi 51 may be tank mixed with the herbicides listed in Table 9 for increased burndown activity, additional residual broadleaf and/or additional grass control. Refer to tank mix partner's label for adjuvant directions.

Table 9. Tank Mix Partners for Control of Emerged Weeds in Reduced Tillage Soybeans

TANK MIX PARTNER	TARGET WEEDS <sup>1</sup>
2,4-D ethylhexyl ester	Marestail
	Giant Ragweed
	Dandelion
paraquat	Annual Grasses
	Henbit
glyphosate	General Burndown
clethodim	Annual Grasses
imazaquin	Cocklebur
	Common Sunflower
dicamba dimethylamine salt + 2,4-D dimethylamine salt	Marestail
	Giant Ragweed
	Dandelion

<sup>&</sup>lt;sup>1</sup>Refer to tank mix product labels for specific directions for control of emerged weeds present.

#### ADDITIONAL RESIDUAL BROADLEAF CONTROL

Tacoma Ag Flumi 51 can be tank mixed with metribuzin, cloransulam-methyl, linuron, imazethapyr, flumetsulam, or imazaquin for additional broadleaf control.

#### ADDITIONAL RESIDUAL GRASS CONTROL

Tacoma Ag Flumi 51 can be tank mixed with pendimethalin or clomazone for additional grass control. In the states of Alabama, Arkansas, Delaware, Georgia, Louisiana, Maryland, Mississippi, North Carolina, Oklahoma, South Carolina, Tennessee, Texas and Virginia, Tacoma Ag Flumi 51 can be tank mixed with micro-encapsulated acetochlor at 2 oz. per acre. Tank mixes with flufenacet, metolachlor or dimethenamid

may result in severe injury to soybeans when application is followed by prolong periods of cool wet weather and must not be used with Tacom Ag Flumi 51.

#### **ROUNDUP READY PROGRAM**

Tacoma Ag Flumi 51 may be applied as part of a burndown program or preemergence in conventional tillage programs, at 2 to 3 oz./A to reduce early season weed competition from waterhemp, velvetleaf, nightshade and morningglories as well as other weeds listed in Tables 2 and 3 in Roundup Ready programs. A sequential post emergence application of glyphosate will be required to control weeds not controlled by Tacoma Ag Flumi 51.

# **DIRECTIONS FOR USE IN STRAWBERRY**

#### **RESTRICTIONS**

- Do not apply more than 3 oz. of Tacoma Ag Flumi 51 (0.096 lb. a.i.) per acre per application.
- Do not apply more than 3 oz. of Tacoma Ag Flumi 51 (0.096 lb. a.i.) per acre per year.

#### **PRECAUTIONS**

- Tacoma Ag Flumi 51, at 3 oz. per acre, can be applied to the soil a minimum of 30 days prior to transplanting strawberries provided the strawberries will be transplanted through a plastic mulch.
- Tacoma Ag Flumi 51 at 3 oz. per acre can be applied to dormant (established or newly planted)
   strawberries for the preemergence control of the weeds listed in Table 1, Broadleaf Weeds Controlled
   by Residual Activity of Tacoma Ag Flumi 51.
- Tacoma Ag Flumi 51, at 3 oz. per acre, can be applied in strawberry row middles with a shielded or hooded sprayer for the preemergence control of the weeds listed in Table 1, Broadleaf Weeds Controlled by Residual Activity of Tacoma Ag Flumi 51.

Application Method	Minimum Time From Application to Harvest (PHI)	Use Rate Per Acre Per Application (oz)	Use Rate Per Acre Per Year (oz)	Special Use Instructions
Pre-transplant	Not applicable	3	3	Apply a minimum of 30 days prior to transplanting and prior to plastic mulch being laid.  Apply as part of a tank mix to control emerged weeds.
Preemergence to dormant strawberries	Not applicable	3	3	Crop oil concentrate, at 1% v/v, or non-ionic surfactant, at 0.25% v/v, may be added to help control emerged broadleaf weeds.
Hooded or shielded sprayer application to row middles	Do not apply after fruit set	3	3	Apply only to row middles – do not apply over strawberries.  Apply prior to weed emergence.  Crop spotting may occur if an adjuvant is added.  Avoid application after fruit set as this may result in spotting of fruit.  Do not allow spray drift to come in contact with fruit or foliage.

Table 10. Weeds Controlled by Preemergence Application of Tacoma Ag Flumi 51

COMMON NAME	SCIENTIFIC NAME	ORGANIC MATTER	SOIL TYPE	TACOMA AG FLUMI 51 RATE
Bristly Starbur	Acanthospermum hispidum	Up to 10%1	All Soil Types <sup>2</sup>	Asparagus,
Carpetweed	Mollugo verticillata			Caneberries
Chickweeds				Garlic, Hops 6 oz./A
Common	Stellaria media			0 02./A
Mouseear	Cerastium vulgatum			Sugarcane
Coffee Senna	Cassia occidentalis			6 to 8 oz./A
Dandelion	Taraxacum officinale			
Eclipta	Eclipta prostrata			Bushberries,
Eveningprimrose, Cutleaf	Oenothera laciniata			Cactus, Citrus
False Chamomile	Tripleurospermum maritima			Fruit Grapes, Nut
Filaree				Trees, Olive,
Redstem	Erodium cicutarium			Pome Fruit,
Whitestem	Erodium moschatum			Pomegranate,
Fiddleneck, Coast	Amsinckia menziesii			Stone Fruit
Fleabane, Hairy	Conyza bonariensis			and
Field Pennycress	Thlaspi arvense			Non-Bearing Fruit Trees
Florida Beggarweed	Desmodium tortuosum			6 to 12 oz./A <sup>2</sup>
Florida Pusley	Richardia scabra			0 10 12 02.71
Golden Crownbeard	Verbesina encelioides			To Maintain
Groundsel, Common	Senecio vulgaris			Bare Ground
Hairy Indigo	Indigofera hirsuta			on Non-Crop
Hemp Sesbania	Sesbania exaltata			Areas of
	Lamium amplexicaule			Farms, Orchards &
Jimsonweed	Datura stramonium			Vineyards
Kochia	Kochia scoparia			6 to 12 oz./A
Lambsquarters, Common	Chenopodium album			
Mallow				
Common (Cheeseweed)	Malva neglecta			
Little				
Horseweed/Marestail	Conyza canadensis			
Mayweed/False Chamomile	Matricaria maritima			

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COMMON NAME	SCIENTIFIC NAME	ORGANIC MATTER	SOIL TYPE	TACOMA AG FLUMI 51 RATE
Morningglories		Up to 10%1	All Soil Types <sup>2</sup>	Asparagus,
Entireleaf	Ipomoea hederacea var. integriuscula			Caneberries
lvyleaf				Garlic, Hops
Red/Scarlet	Ipomoea coccinea			6 oz./A
Smallflower	Jacquemontia tamnifolia			Sugarcane
Tall	Ipomoea purpurea			6 to 8 oz./A
Mustards				
London Rocket	Sisymbrium irio			Bushberries,
Tansey	Desurainia pinnata			Cactus, Citrus
Tumble	Sisymbrium altissimum			Fruit Grapes, Nut
Wild	Brassica kaber			Trees, Olive,
Nettle, Burning	Urtica urens			Pome Fruit,
Nightshades				Pomegranate,
Black	Solanum nigrum			Stone Fruit
Eastern Black	Solanum ptycanthum			and
Hairy	Solanum sarrachoides			Non-Bearing Fruit Trees
Pigweeds				6 to 12 oz./A <sup>2</sup>
Palmer Amaranth	Amaranthus palmeri			0 10 12 02.77
Redroot	Amaranthus retroflexus			To Maintain
Smooth	Amaranthus hybridus			Bare Ground
Spiny Amaranth	Amaranthus spinosus			on Non-Crop
Tumble	Amaranthus albus			Areas of Farms,
Prickly Lettuce (China Lettuce)	Lactuca serriola			Orchards & Vineyards
Prickly Sida (Teaweed)	Sida spinosa			6 to 12 oz./A.
Puncturevine	Tribulus terrestris			
Purslane				
Common	Portulaca oleracea			
Horse	Trianthema portulacastrum			
Radish, Wild	Raphanus raphanistrum			
Ragweed, Common	Ambrosia artemisiifolia			
Redmaids	Calandrinia ciliata var menziessii			
Redweed	Melochia corchorifolia			

BROADLEAF WEED SPECIES						
COMMON NAME	SCIENTIFIC NAME	ORGANIC MATTER	SOIL TYPE	TACOMA AG FLUMI 51 RATE		
Shepherd's-purse	Capsella bursa-pastoris	Up to 10% <sup>1</sup>	All Soil Types <sup>2</sup>	Asparagus, Caneberries		
Smellmelon	Cucumis melo			Garlic, Hops		
Sowthistle, Annual <sup>3</sup>	Sonchus oleraceus			6 oz./A		
Spotted Spurge	Euphorbia maculata			Sugarcane		
Spurred Anoda	Anoda cristata			6 to 8 oz./A		
Thistle, Russian	Salsola iberica			0 to 0 02.//1		
Tropic Croton	Croton glandulosus			Bushberries, Cactus,		
Venice Mallow	Hibiscus trionum	1		Citrus Fruit, Grapes, Nut Trees,		
Waterhemps		1		Olive, Pome Fruit,		
Common	Amaranthus rudis	7		Pomegranate, Stone Fruit and Non-Bearing		
Tall	Amaranthus tuberculatus	1		Fruit Trees		
Wild Poinsettia	Euphorbia heterophylla	1		6 to 12 oz./A <sup>2</sup>		
White Cockle	Silene latifolia	1				
Wormwood, Biennial	Artemisia beinnis	1		To Maintain Bare		
Yellow Rocket	Barbarea vulgaris	1		Ground on Non-Crop Areas		
GRASS WEED SPE	CIES	1		of Farms, Orchards & Vineyards 6 to 12 oz./A		
Barnyardgrass	Echinochloa crus-galli			0 to 12 02./A		
Bluegrass, Annual	Poa annua					
Crabgrass		_				
Large	Digitaria sanquinalis					
Smooth	Digitaria ischaemum					
Foxtails						
Bristly	Setaria verticillata					
Giant	Setaria faberi					
Green	Setaria viridis					
Yellow	Setaria glauca					
Goosegrass	Eleusine indica					
Guineagrass	Panicum maximum					
Johnsongrass, Seedling	Sorghum halepense					
Lovegrass, California	Eragrostis diffusa					
Panicum						
Fall	Panicum dichotomiflorum					
Texas	Panicum texaum					
Ryegrass, Italian	Lolium multiflorum					
Signalgrass, Broadleaf	Brachiaria platyphylla	7				

<sup>1</sup>Tacoma Ag Flumi 51 can be used on soils with greater than 10% organic matter; however, length of residual control may be shorter than on soils with lower organic matter content.

<sup>2</sup>Use a maximum Tacoma Ag Flumi 51 Herbicide rate of 6 oz./A per application on any soil that has a sand plus gravel content over 80% if bushes, trees or vines are under 3 years of age.

<sup>3</sup>Except CA.

#### **DIRECTIONS FOR USE IN SUGARCANE**

#### **RESTRICTIONS**

- Do not apply more than 8 oz. of Tacoma Ag Flumi 51 (0.255 lb. a.i.) per acre per application.
- Do not make a sequential application within 14 days of the first application.
- Do not apply more than 12 oz. of Tacoma Ag Flumi 51 (0.383 lb. a.i.) per acre per year.
- Do not apply within 90 days of harvest.

#### **TIMING TO SUGARCANE**

Tacoma Ag Flumi 51 may be applied from 2 weeks prior to planting to before the sugarcane emerges, post directed or at layby. Select the proper Tacoma Ag Flumi 51 rate from Table 10 according to anticipated weed spectrum and soil organic matter content for preemergence applications. Select Tacoma Ag Flumi 51 rate from Table 11 according to emerged weed spectrum and weed heights for post-directed and layby applications.

#### **TIMING TO WEEDS**

# **Burndown - Preemergence to Sugarcane, Postemergence to Weeds**

Tacoma Ag Flumi 51 may be used for preemergence control, and to assist in postemergence burndown, of many annual broadleaf weeds in sugarcane. For control of emerged weeds, choose the most appropriate tank mix partner from Table 12. Apply Tacoma Ag Flumi 51 **before the crop emerges**. To ensure thorough coverage, use a minimum of 15 gals. of spray solution per acre. All Tacoma Ag Flumi 51 tank mixes applied to assist in the control of emerged weeds must be applied with crop oil concentrate or methylated seed oil at 1 qt./A or a non-ionic surfactant at 0.25% v/v. Some tank mix products, such as glyphosate, may be formulated with a suitable adjuvant and do not require additional adjuvant.

# Preemergence - Preemergence to Sugarcane, Preemergence to Weeds

Tacoma Ag Flumi 51 may be used for preemergence control of many annual broadleaf and grassy weeds in sugarcane. Select rate based on anticipated weed spectrum and soil organic matter content from Table 10. Apply Tacoma Ag Flumi 51 **before the crop emerges**.

# Post-Directed - Postemergence to Sugarcane, Postemergence to Weeds

Make post-directed applications to upright sugarcane varieties after the sugarcane has exceeded 24 inches in height and has begun to joint. Post-directed applications must not be made to "PINEAPPLE" varieties. Post-directed applications to "PINEAPPLE" varieties or to upright varieties that have not exceeded 24 inches in height and have not begun to joint, may result in unacceptable crop injury. To ensure thorough coverage, use a minimum of 15 gals. of spray solution per acre. Post-directed applications of Tacoma Ag Flumi 51 must include a crop oil concentrate or methylated seed oil at 1 qt./A or a non-ionic surfactant at 0.25% v/v. Select the proper Tacoma Ag Flumi 51 rate based on weed spectrum and weed height from Table 11.

# Layby - Postemergence to Sugarcane, Postemergence to Weeds

Layby applications can be made to upright and "PINEAPPLE" varieties after the sugarcane has exceeded 30 inches in height and the spray solution will not contact foliage above 6 inches from the base of the sugarcane. To ensure thorough coverage, use a minimum of 15 gals. of spray solution per acre. Layby applications of Tacoma Ag Flumi 51 must be applied with crop oil concentrate or methylated seed oil at 1 qt./A or a non-ionic surfactant at 0.25% v/v. Select the proper Tacoma Ag Flumi 51 rate based on weed spectrum and weed height from Table 11.

Table 11. Broadleaf Weeds Controlled by Post-Directed or Layby Application of Tacoma Ag Flumi 51 in Sugarcane

BROADLEAF WEED SPECIES		WEED HEIGHT (Inches)		
COMMON NAME	SCIENTIFIC NAME	3 oz./A	4 oz./A	
Bindweed, Field <sup>1</sup>	Convolvulus arvensis	4	8	
Carpetweed	Mollugo verticillata	4	4	
Cocklebur, Common	Xanthium strumarium	4	4	
Florida Beggarweed	Desmodium tortuosum	2	2	
Hemp Sesbania	Sesbania exaltata	6	8	
Jimsonweed	Datura stramonium	4	4	
Lambsquarters, Common	Chenopodium album	4	4	
Morningglories				
Entireleaf	Ipomoea hederacea var. integriuscula	-	4	
lvyleaf	Ipomoea hederacea	4	4	
Pitted	Ipomoea lacunosa	4	6	
Red	Ipomoea coccinea	-	4	
Tall	Ipomoea purpurea	2	4	
Mustard, Wild	Brassica kaber	6	6	
Pigweeds				
Palmer Amaranth	Amaranthus palmeri	4	6	
Redroot	Amaranthus retroflexus	4	6	
Smooth	Amaranthus hybridus	4	6	
Plaintain, Broadleaf	Plantago major	6	6	
Prickly Sida	Sida spinosa	4	6	
Purslanes				
Common	Portulaca oleracea	2	4	
Rock	Calandrinia spp.	-	2	
Ragweeds				
Common	Ambrosia artemisiifolia	2	2	
Giant	Ambrosia trifida	4	4	
Rice Flatsedge	Cyperus iria	2	4	
			continue	

BROADLEAF WEED SPECIES		WEED HEIGHT (Inches)		
COMMON NAME	SCIENTIFIC NAME	3 oz./A	4 oz./A	
Sicklepod	Senna obtusifolia	4	4	
Smartweeds				
Ladysthumb	Polygonum persicaria	4	4	
Pale	Polygonum lapathifolium	4	4	
Pennsylvania	Polygonum pensylvanicum	4	4	
Spotted Spurge	Euphorbia maculata	4	4	
Velvetleaf	Abutilon theophrasti	4	6	
Venice Mallow	Hibiscus trionum	2	2	
Waterhemps				
Common	Amaranthus rudis	2	2	
Tall	Amaranthus tuberculatus	2	2	

<sup>&</sup>lt;sup>1</sup>Tacoma Ag Flumi 51 tank mixes will only control the above ground portion of field bindweed. Repeated applications will be needed to control regrowth.

#### **TANK MIXES**

Tacoma Ag Flumi 51 may be tank mixed with the herbicides listed in Table 12 for additional weed control in burndown, preemergence, post-directed and layby applications. Refer to tank mix partner's label for adjuvant directions.

# **Tank Mixing Instructions:**

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.

Table 12. Tank Mixes with Tacoma Ag Flumi 51 for Post-Directed or Layby Use in Sugarcane

TANK MIX PARTNER <sup>1</sup>	TARGET WEEDS	BURNDOWN	POST-DIRECTED <sup>2</sup>	LAYBY
2,4-D amine	Annual and Perennial Broadleaf Weeds	Х		
atrazine	Pigweeds Cocklebur	Х	X	Х
asulam, sodium salt <sup>3</sup>	Annual Grasses		Х	Χ
ametryn <sup>4</sup>	Annual Grasses		Х	Χ
glyphosate <sup>5</sup>	Annual and Perennial Weeds	Х		Х
metribuzin <sup>6</sup>	Broadleaf Panicum Goosegrass		X	Х
halosulfuron-methyl	Purple Nutsedge Yellow Nutsedge	X	Х	Х
2,4-D amine + dicamba dimethylamine salt	Annual and Perennial Broadleaf Weeds	Х		

<sup>&</sup>lt;sup>1</sup>Refer to tank mix product labels for specific directions for control of emerged weeds present not listed in Table 11.

#### ADDITIONAL PREEMERGENCE BROADLEAF CONTROL

Tacoma Ag Flumi 51 can be tank mixed with atrazine or diuron for additional preemergence broadleaf control.

#### ADDITIONAL PREEMERGENCE GRASS CONTROL

Tacoma Ag Flumi 51 can be tank mixed with Prowl (or other pendimethalin products) for additional preemergence grass control provided sugarcane has not emerged.

#### DIRECTIONS FOR USE IN SUNFLOWER AND SAFFLOWER

# HARVEST AID RESTRICTIONS

- Do not apply more than 3 oz. of Tacoma Ag Flumi 51 (0.096 lb. a.i.) per acre during a single application.
- Do not apply more than 3 oz. of Tacoma Ag Flumi 51 (0.096 lb. a.i.) per acre per year.
- Do not harvest within 5 days of application.

<sup>&</sup>lt;sup>2</sup>Post-directed applications must only be made to upright sugarcane varieties after the sugarcane has exceeded 24 inches in height. Post-directed applications must not be made to "PINEAPPLE" varieties. Post-directed applications to "PINEAPPLE" varieties or to upright varieties that have not exceeded 24 inches in height may result in unacceptable crop injury.

<sup>&</sup>lt;sup>3</sup>Apply to sugarcane at least 24 inches tall.

<sup>&</sup>lt;sup>4</sup>Apply before weeds are greater than 6 inches tall.

<sup>&</sup>lt;sup>5</sup>Glyphosate applications must be made with a hooded sprayer. Sugarcane must be a least 3 ft. tall. Contact with the sugarcane foliage by either the spray mixture or the treated weed foliage will result in sugarcane injury.

<sup>&</sup>lt;sup>6</sup>Refer to metribuzin label for restrictions based on soil type.

Desiccation from Tacoma Ag Flumi 51 requires the addition of an agronomically approved adjuvant to the spray mixture. Use a methylated seed oil which contains at least 15% emulsifiers and 80% oil at 1 qt./A. A spray grade nitrogen source (either ammonium sulfate at 2 to 2.5 lbs./A or a 28 to 32% nitrogen solution at 1 to 2 qts./A) may be added to the spray mixture along with methylated seed oil to enhance desiccation. The addition of a nitrogen source does not replace the need for methylated seed oil. Tank mixing Tacoma Ag Flumi 51 with glyphosate or paraquat will increase control of emerged weeds and aid in harvest for sunflowers. Tank mixing Tacoma Ag Flumi 51 with glyphosate will increase control of emerged weeds and aid in the harvest for safflower.

#### TIMING TO SUNFLOWER AND SAFFLOWER

Apply Tacoma Ag Flumi 51, at 1.5 to 2 oz./A, when crop is mature (when seed is 35% moisture or less). For many varieties, this is when the backs of the heads are turning yellow and the bracts are turning brown. Sunflower and safflower can be harvested 5 days after application.

To ensure thorough coverage, use 15 to 30 gallons of spray solution per acre and select nozzle type using manufacturer's gallonage and pressure recommendations for postemergence application.

# **DIRECTIONS FOR USE IN SWEET POTATO**

#### RESTRICTIONS

- Do not apply more than 3 oz. of Tacoma Ag Flumi 51 (0.096 lb. a.i.) per acre per year.
- Do not apply postemergence to sweet potatoes.
- Do not use greenhouse grown transplants.
- Do not use transplants harvested more than 2 days prior to transplanting.
- Do not use on any sweet potato variety other than "BEAUREGARD", unless user has tested Tacoma Ag
  Flumi 51 on other variety and has found crop tolerance to be acceptable.
- Do not apply as a part of any tank mix, except with labeled rates of Command, if tank mix is applied prior to transplanting.

# **TIMING TO SWEET POTATOES**

Tacoma Ag Flumi 51 must be applied prior to transplanting sweet potatoes.

#### **TIMING TO WEEDS**

#### **Preemergence to Weeds**

Apply Tacoma Ag Flumi 51 to soil prior to transplanting sweet potato slips for the preemergence control of the weeds listed in Table 1.

#### **DIRECTIONS FOR USE IN WHEAT**

#### **RESTRICTIONS**

- Do not apply more than 2 oz. of Tacoma Ag Flumi 51 (0.064 lb. a.i.) per acre during a single application.
- Do not apply more than 2 oz. of Tacoma Ag Flumi 51 (0.064 lb. a.i.) per acre per year.

# PRE-PLANT APPLICATIONS, PRE-EMERGENCE WEED CONTROL

For Use in the States of DE, ID, KY, MD, MN, MT, NC, ND, NJ, OR, PA, SC, SD, TN, VA, WA and WI Only

#### RESTRICTIONS

- For pre-plant weed control, use only on no-till or minimum tillage fields where the previous year's crops residue has not been incorporated into the soil.
- Plant wheat no sooner than 7 days after Tacoma Ag Flumi 51 application in the states of DE, ID, KY, MD, MN, MT, NC, ND, NJ, OR, PA, SC, SD, TN, VA, WA or WI.
- Plant wheat no sooner than 14 days after Tacoma Ag Flumi 51 application in the states of ID, MN, MT, ND, OR, SD, WA or WI.
- Do not use on Durum wheat.
- Do not irrigate between emergence and spike.
- Wheat must be planted a minimum of 1" deep.
- Do not graze until wheat has reached 5 inches in height.

#### **Burndown Use Directions**

Tacoma Ag Flumi 51, applied as part of a burndown program, at 2 oz./A, may be used for residual weed control, as well as to assist in postemergence burndown of many weeds where wheat will be planted directly into the residue of the previous crop. See Directions for Use in Fall Burndown Programs in Fields to be Planted to Barley, Field Pea, Flax, Lentil, Safflower, Sunflower and Spring Wheat for rates and timing of applications. For control of emerged weeds, Tacoma Ag Flumi 51 must be applied with an appropriate burndown tank mix partner. To ensure thorough coverage, use a minimum of 15 gallons of spray solution per acre. Refer to tank mix partner's label for recommended adjuvant systems.

# POST-PLANT, PRE-EMERGENCE WEED CONTROL RESTRICTIONS

- For post-plant, pre-emergence weed control, use only on no-till or minimum tillage fields where the previous crop residue has not been incorporated into the soil.
- Apply Tacoma Ag Flumi 51 up to 2 days after planting.
- · Do not use on Durum wheat.
- Do not irrigate between emergence and spike.
- Wheat must be planted a minimum of 1" deep.
- Do not graze until wheat has reached 5 inches in height.

#### **Use Directions**

Tacoma Ag Flumi 51, applied at 2 oz./A, may be used for residual weed control, where wheat has been planted directly into the residue of the previous year. Application must be made no later than 2 days after planting.

# HARVEST AID RESTRICTION

• Do not harvest within 10 days of application.

#### **Use Directions**

Tacoma Ag Flumi 51, applied at 2 oz./A for desiccation requires the addition of an agronomically approved adjuvant to the spray mixture. Use a methylated seed oil which contains at least 15% emulsifiers and 80%

oil at 1 qt./A. A spray grade nitrogen source (either ammonium sulfate at 2 to 2.5 lbs./A or a 28 to 32% nitrogen solution at 1 to 2 qts./A) may be added to the spray mixture along with methylated seed oil to enhance desiccation. The addition of a nitrogen source does not replace the need for methylated seed oil. Tank mixing Tacoma Ag Flumi 51 with glyphosate will increase control of emerged weeds and aid in harvest.

To ensure coverage, use a minimum of 10 gallons spray solution per acre by ground application and a minimum of 5 gallons per acre by aerial application. Nozzle selection must meet manufacturer's gallonage and pressure recommendations for postemergence application.

#### **TIMING TO WHEAT**

Apply Tacoma Ag Flumi 51, at 1.5 to 2 oz./A, after wheat reaches the hard dough stage and grain has no more than 30% moisture. Wheat can be harvested 10 days after application. Tacoma Ag, LLC advises tank mixing with glyphosate.

# DIRECTIONS FOR USE IN BUSHBERRIES, CANEBERRY, CITRUS FRUIT, GRAPE, TREE NUT, OLIVE, POME FRUIT, POMEGRANATE, STONE FRUIT AND NON-BEARING FRUIT TREES

Bushberry (Subgroup 13-07B): Aronia Berry, Blueberry, Highbush; Blueberry, Lowbush; Buffalo Currant; Chilean Guava; Cranberry, Highbush; Currant, Black; Currant, Red; Elderberry, European Barberry, Gooseberry, Honeysuckle edible; Huckleberry; Jostaberry; Juneberry (Saskatoon Berry); Ligonberry; Native Currant; Salal; Sea Buckthorn; cultivars, varieties, and/or hybrids of these.

Caneberry (Subgroup 13-07A): Blackberry, Loganberry, Black Raspberry, Red Raspberry, Wild Raspberry cultivars, varieties and/or hybrids of these.

Citrus Fruit (Crop Group 10-10): Australian Desert Lime; Australian Finger-lime; Australian Round Lime; Brown River Finger Lime; Calamondin; Citron; Citrus hybrids; Grapefruit; Japanese Summer Grapefruit; Kumquat; Lemon; Lime; Mediterranean Mandarin; Mount White Lime; New Guinea Wild Lime; Orange, Sour; Orange, Sweet; Pummelo; Russell River Lime; Satsuma Mandarin; Sweet Lime; Tachibana Orange; Tahiti Lime; Tangelo; Tanerine (mandarin); Tangor; Trifoliate Orange; Uniq Fruit; cultivars, varieties and/or hybrids of these.

Tree Nut (Crop Group 14-12): African Nut-tree; Almond, Beechnut; Brazil Nut; Brazilian Pine; Bunya; Bur Oak; Butternut; Cajou Nut; Candlenut; Cashew; Chestnut; Chinquapin; Coconut; Coquito Nut; Dika Nut; Ginko; Guiana Chestnut; Hazelnut (Filbert); Heartnut; Hickory Nut; Japanese Horse-chestnut; Macadamia Nut; Mongongo Nut; Monkey-pot; Monkey Puzzle Nut; Okari Nut; Pachira Nut; Peach Palm Nut; Pecan; Pequi; Pili Nut; Pine Nut; Pistachio; Sapucaia Nut; Tropical Almond; Walnut, Black; Walnut, English; Yellowhorn, cultivars, varieties and/or hybrids of these.

Pome Fruit (Crop Group 11-10): Apple; Azarole; Crabapple; Loquat; Mayhaw; Medlar; Pear; Pear, Asian; Quince; Quince, Chinese; Quince, Japanese; Tejocote; cultivars, varieties and/or hybrids of these.

Stone Fruit (Crop Group 12-12): Apricot; Apricot, Japanese; Capulin; Cherry, Black; Cherry, Nanking; Cherry, Sweet; Cherry, Tart; Jujube, Chinese; Nectraine; Peach; Plum; Plum, American; Plum, Beach; Plum, Canada; Plum, Cherry; Plum, Chickasaw; Plum, Damson; Plum, Japanese; Plum, Klamath; Plum, Prune; Plumcot; Sloe and cultivars, varieties and/or hybrids of these.

#### **RESTRICTIONS**

 Do not apply more than 12 oz. of Tacoma Ag Flumi 51 (0.383 lb. a.i.) per acre during a single application, except Caneberries do not apply more than 6 oz. Tacom Ag Flumi 51 (0.191 lb. a.i.) per acre during a single application.

- Do not apply more than 24 oz. of Tacoma Ag Flumi 51 (0.765 lb. a.i.) per acre during a 12 month period, except Bushberries; for Bushberries do not apply more than 12 oz. of Tacoma Ag Flumi 51 (0.383 lb. a.i.) per acre during a 12 month period; Caneberries do not apply more than 6 oz. (0.191 lb. a.i.) per acre during a 12 month period.
- Do not make a sequential application within 30 days of the first application, except nut trees, do not make a sequential application within 60 days of the first application.
- Do not apply to farm alleys or roads where traffic may result in treated dust settling onto crops or other desirable vegetation.
- Do not apply within 300 yards of non-dormant pome fruit and stone fruit.
- Do not apply to powdery soils or soils that are susceptible to wind displacement unless irrigation can be applied immediately after application.
- Do not mow treated areas between bud break and final harvest. Dust created by mowing may drift onto desirable vegetation resulting in injury.
- Do not apply to nut trees established less than one year, unless protected from spray contact by non-porous wraps, grow tubes, or waxed containers.
- Preharvest Interval (PHI)

o Citrus Fruit: 3 days

o Bushberries: 7 days

o Caneberries: 7 days

o Grape: 60 days

o Nut Trees: 60 days

o Olive: 60 days

o Pome Fruit: 60 days

o Pomegranate: 60 days

o Stone Fruit: 60 days

Use a maximum Tacoma Ag Flumi 51 rate of 6 oz./A (0.191 lb. a.i.) per application on any soil that has
a sand plus gravel content over 80% if bushes, trees or vines are less than 3 years of age. (Two
applications of 6 oz./A in a 12 month period can still be made as long as there have been 60 days
between applications).

#### **PRECAUTIONS**

- Raise mower height during all mowing to reduce dust. Dust created by mowing can drift onto desirable vegetation resulting in injury.
- Follow the most restrictive label limitations and precautions of the tank mix product(s) being used.
- Avoid direct or indirect spray contact to foliage and green bark (non-barked trunk and non-barked vines with the exception of undesirable suckers).
- Irrigate after application with minimum of ¼ inch of water to activate the herbicide and to reduce wind displacement of soil.

For bushberries, caneberries, citrus fruit, grape, nut trees, olive, pomegranate and non-bearing fruit trees, apply Tacoma Ag Flumi 51 as a uniform broadcast application to the orchard or vineyard floor or as a uniform band directed at the base of the bush, trunk or vine. For stone fruit and pear, Tacoma Ag Flumi 51 can only be applied as a uniform band directed at the base of the trunk prior to "bud break". For apple, Tacoma Ag Flumi 51 can only be applied as a uniform band directed at the base of the trunk prior to "pink bud". For other pome fruit, check with your Tacoma Ag, LLC representative for application timing. The preferred application timing for Tacoma Ag Flumi 51 is in the fall to maximize the potential for rainfall to activate and set the herbicide. Do not apply over the top of crop or allow spray to come in contact with crop as a result of application or drift.

# **Preemergence Application**

Apply 6 to 12 oz. (0.188 to 0.38 lb. ai/A) (maximum of 6 oz./A for caneberries) of Tacoma Ag Flumi 51 per broadcast acre as a preemergence application. Make preemergence (to weed emergence) applications of Tacoma Ag Flumi 51 to a weed-free soil surface. Preemergence applications of Tacoma Ag Flumi 51 must be completed prior to weed emergence. Moisture is necessary to activate Tacoma Ag Flumi 51 on soil for residual weed control. Dry weather following application of Tacoma Ag Flumi 51 may reduce effectiveness. However, when adequate moisture is received after dry conditions, Tacoma Ag Flumi 51 will control susceptible germinating weeds.

#### **Postemergence Application**

If weeds are emerged at the time of application, apply 6 to 12 oz. (0.188 to 0.38 lb. ai/A) (maximum 6 oz./A for caneberries) of Tacoma Ag Flumi 51 per broadcast acre plus an adjuvant (0.25% v/v non-ionic surfactant or 1 qt./A crop oil concentrate). The addition of an adjuvant enhances Tacoma Ag Flumi 51 activity on emerged weeds. Thorough spray coverage is necessary to maximize the postemergence activity of Tacoma Ag Flumi 51. Tacoma Ag Flumi 51 will not control emerged weeds without the addition of a labeled burndown product.

Refer to Table 10, Weeds Controlled by Preemergence Application of Tacoma Ag Flumi 51 for weeds controlled by the residual activity of Tacoma Ag Flumi 51. Tank mix Tacoma Ag Flumi 51 with a labeled burndown herbicide for control of the emerged weeds listed in Table 13. Refer to tank mix partner's label for additional weed species and increased weed heights claimed. Refer to tank mix partner's label for additional restrictions, including minimum carrier volume and crops in which tank mix partner may be used. Tank mixes with glyphosate or 2,4-D containing products are not advised during the period after bloom through final harvest to ensure crop safety from drift.

Residual weed control will be reduced if vegetation prevents the Tacoma Ag Flumi 51 from reaching the soil surface. If vegetation is heavy, it is advised to use a burndown herbicide with Tacoma Ag Flumi 51 and make a sequential Tacoma Ag Flumi 51 application prior to the emergence of new weeds.

# **Carrier Volume and Spray Pressure**

To ensure thorough coverage in burndown applications, use a minimum of 15 gallons of spray solution per acre. Use higher gallonage if dense vegetation or heavy crop residue is present.

Nozzle selection must meet manufacturer's gallonage and pressure recommendations.

#### **Banded Application**

Rates listed in Table 13, Weeds Controlled by Postemergence Activity of Tacoma Ag Flumi 51 Tank Mixes, refer to a broadcast application covering the entire acre. Refer to the Band Application table in Use Information section to calculate amount needed per acre when making a banded application.

#### **USE RESTRICTIONS FOR BUSHBERRIES**

 Do not use in the states of Idaho, Oregon or Washington except west of the Cascade Mountains in the following counties:

**Oregon:** Benton, Clackamas, Clatsop, Columbia, Coos, Curry, Douglas, Jackson, Josephine, Lane, Lincoln, Linn, Marion, Multnomah, Polk, Tillamook, Umatilla, Yamhill and Washington

**Washington:** Benton, Clallam, Clark, Cowlitz, Franklin, Grant, Grays Harbor, King, Jefferson, Kitsap, Lewis, Pacific, Pierce, Skagit, Snohomish, Thurston, Wahkiakum, Walla Walla and Whatcom

• Do not apply to bushberries established less than 2 years unless they are protected from spray contact by non-porous wrap, grow tubes or waxed containers.

#### **USE RESTRICTIONS FOR GRAPES**

- Do not apply to grapes established less than 2 years unless they are trellised at least 3 ft. from the soil surface or are protected from spray contact by non-porous wrap, grow tubes or waxed containers.
- Do not apply to grapes that are not trellised or staked unless they are free standing.
- Avoid direct or indirect spray contact to foliage and green bark (non-barked vines, with the exception of undesirable suckers).
- Plant new plantings of "own-rooted varieties", such as Concord, so that all roots are a minimum of 8 inches below the soil surface to be treated. In some situations, this may require hilling soil around newly planted vines so that the settled depth of the hill will be 4 to 5 inches above the vineyard floor.

# Juice, Raisin and Wine Grapes

Do not apply during the period after bud break through final harvest, unless using shielded application
equipment and applicator can ensure spray drift will not come in contact with crop fruit or foliage.
Shielded applications during this time period must not be made with glyphosate or products containing
glyphosate.

#### **Table Grapes**

- Tacoma Ag Flumi 51 may be applied during the period following final harvest up to bud break.
- Do not apply after bud break.

# USE PRECAUTIONS FOR CITRUS FRUIT, TREE NUTS, OLIVE, POME FRUIT, POMEGRANATE AND STONE FRUIT

- For pome fruit and stone fruit, Tacoma Ag Flumi 51 can only be applied as a uniform band directed at the base of the trunk prior to silver tip in apples and bud break in stone fruit.
- For pome fruit and stone fruit do not apply to row middles (area between berms)
- For nut trees, olive and pomegranate apply after bud break through final harvest using shielded application
  equipment if the applicator can ensure the spray drift will not come into contact with non-target
  vegetation, crop fruit and/or foliage. Shielded application equipment is not required if the following
  application parameters are followed:

- Application pressure (at boom) < 30 PSI.</li>
- Application speed < 5 MPH.</li>
- Applicator can ensure the spray drift will not come into contact with non-target vegetation, crop fruit and/or foliage.

# USE RESTRICTIONS FOR CITRUS FRUIT, TREE NUTS, OLIVE, POME FRUIT, POMEGRANATE AND STONE FRUIT

- California Only: For almonds and stone fruit in the counties of Merced, San Joaquin and Stanislaus, refer to use precautions below.
- Do not apply to pears in the states of Oregon or Washington.
- Do not apply to trees established less than one year, unless protected from spray contact by non-porous wraps, grow tubes, paint or waxed containers.
- Do not use in the states of Oregon or Washington except in the following counties unless the additional restrictions listed below are followed:

**Oregon:** Benton, Clackamas, Clatsop, Columbia, Coos, Curry, Douglas, Jackson, Josephine, Lane, Lincoln, Linn, Marion, Morrow, Multnomah, Polk, Tillamook, Umatilla, Yamhill and Washington

**Washington:** Clallam, Cowlitz, Grays Harbor, King, Jefferson, Kitsap, Lewis, Pacific, Pierce, Skagit, Snohomish, Thurston, Wahkiakum and Whatcom

- For apples east of the Cascade Mountains in Washington (counties not listed above), follow the restrictions above plus:
  - o Apply between final harvest and January 1.
  - o Apply only to apple blocks with an established (2 years or older) permanent cover crop that covers a minimum of 60% of the surface area in the block.
  - o Application must be incorporated with a minimum of one half inch of water within 48 hours after application.
  - o Do not apply to powdery soils or soils susceptible to wind displacement.
  - o Apply only to orchard berms.
  - o Do not mow the treated berm areas of the orchard.

# USE RESTRICTIONS ON ALMONDS AND STONE FRUIT IN DEFINED AREAS OF MERCED, SAN JOAQUIN AND STANISLAUS COUNTIES OF CALIFORNIA

The use of Tacoma Ag Flumi 51 in soils common in parts of Merced, San Joaquin and Stanislaus counties in California is known to have resulted in injury to almonds under drought stress conditions. These soils are characterized by having been cut or filled, high sand content, low clay content and shallow profiles. The Defined Area can be seen on the Map or by the description that follows:



- Intersection of Highway 4 and Escalon-Bellota Road at Farmington in San Joaquin County;
- Directly South on Escalon-Bellota to the Santa Fe Avenue and railroad tracks at Escalon;
- Southeast on Santa Fe Avenue down to the Merced River;
- East following the Merced River to the Merced/Mariposa County line;
- Northwest following the Merced County line through the intersection of Merced and Stanislaus County line following the Stanislaus/Tuolumne County and Calaveras County line to Highway 4;
- West on Highway 4 back to the Farmington intersection of Escalon Bellota Road.

# **USE RESTRICTIONS FOR NON-BEARING FRUIT TREES**

Non-Bearing Avocado and Fig

- Do not apply more than 12 oz. of Tacoma Ag Flumi 51 (0.383 lb. a.i.) per acre during a single application.
- Do not apply more than 24 oz. of Tacoma Ag Flumi 51 (0.765 lb. a.i.) per acre during a 12 month period.
- Do not harvest fruit from treated trees within one year of application.
- Do not apply to trees established less than one year, unless protected from spray contact by non-porous wraps, grow tubes or waxed containers.
- Do not apply during the period after flowering through leaf drop, unless using shielded application equipment and the applicator can ensure spray drift will not come in contact with the crop foliage.

Table 13. Weeds Controlled by Postemergence Activity of Tacoma Ag Flumi 51 Tank Mixes

COMMON NAME	SCIENTIFIC NAME	WEED HEIGHT/ LENGTH (inches)	TACOMA AG FLUMI 51 HERBICIDE RATE
Bindweed, Field <sup>1</sup>	Convolvulus arvensis	8	6 to 12 oz./A
Carpetweed	Mollugo verticillata	4	
Chickweeds			
Common	Stellaria media	4	
Mouseear	Cerastium vulgatum	4	
Cocklebur, Common	Xanthium strumarium	4	
Eveningprimrose, Cutleaf <sup>2</sup>	Oenothera laciniata	12	
Filaree			
Broadleaf	Erodium botrys	4	
Redstem	Erodium cicutarium	4	
Florida Beggarweed	Desmodium tortuosum	2	
Hemp Sesbania	Sesbania exaltata	8	
Jimsonweed	Datura stramonium	4	
Lambsquarters, Common	Chenopodium album	4	
Morningglories			
Entireleaf	Ipomoea hederacea var. integriuscula	4	
lvyleaf	Ipomoea hederacea	4	
Pitted	Ipomoea lacunose	6	
Red/Scarlet	Ipomoea coccinea	4	
Tall	Ipomoea purpurea	4	
Mustard, Wild	Brassica kaber	6	
Pigweeds			
Palmer Amaranth	Amaranthus palmeri	6	
Redroot	Amaranthus retroflexus	6	
Smooth	Amaranthus hybridus	6	
Plantain, Broadleaf	Plantago major	6	
Prickly Sida (Teaweed)	Sida spinosa	6	
Purslanes			
Common	Portulaca oleracea	4	
Rock	Calandrinia spp.	2	

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BROADLEAF WEED SPECIES				
COMMON NAME	SCIENTIFIC NAME	WEED HEIGHT/ LENGTH (inches)	TACOMA AG FLUMI 51 HERBICIDE RATE	
Ragweeds			6 to 12 oz./A	
Common	Ambrosia artemisiifolia	2		
Giant	Ambrosia trifida	4		
Rice Flatsedge	Cyperus iria	4		
Sicklepod	Senna obtusifolia	4		
Smartweeds				
Ladysthumb	Polygonum persicaria	4		
Pale	Polygonum lapathifolium	4		
Pennsylvania	Polygonum pensylvanicum	4		
Spotted Spurge	Euphorbia maculata	4		
Velvetleaf	Abutilon theophrasti	4		
Venice Mallow	Hibiscus trionum	4		
Waterhemps				
Common	Amaranthus rudis	2		
Tall	Amaranthus tuberculatus	2		

<sup>&</sup>lt;sup>1</sup>Tacoma Ag Flumi 51 will only provide control of the above ground portion of bindweed. Repeated applications will be needed to control regrowth.

#### ADDITIONAL RESIDUAL WEED CONTROL

Tacoma Ag Flumi 51 may be tank mixed with oryzalin, simazine or diuron for additional residual weed control. Always read and follow label use directions for all products being used.

# DIRECTIONS FOR USE TO MAINTAIN BARE GROUND ON NON-CROP AREAS OF FARMS, ORCHARDS AND VINEYARDS

#### **RESTRICTIONS**

- Do not apply to farm alleys or roads where traffic may result in treated dust settling onto crops or other desirable vegetation.
- Do not apply to ditch banks.

Tacoma Ag Flumi 51, when used as directed, can be used on farms, orchards and vineyards for non-selective vegetation control to maintain bare ground on non-crop areas that must be kept weed free. Follow all applicable directions as outlined above under "USE INFORMATION".

<sup>&</sup>lt;sup>2</sup>For acceptable control, cutleaf eveningprimrose must be 12 inches or less and in the rosette stage. Add crop oil concentrate, at 1 pt./A, or non-ionic surfactant at 0.25% v/v, to glyphosate tank mixes for cutleaf eveningprimrose control, including glyphosate formulations that contain a built-in adjuvant system.

Tacoma Ag Flumi 51 offers residual and postemergence control of susceptible broadleaf and grass weeds as well as an additional mode of action to assist in the control of ALS (acetolactate synthase) resistant weeds. Tacoma Ag Flumi 51 can be tank mixed with the herbicides listed in Table 14 for increased residual or postemergence control. The length of residual control is dependent on the rate applied as well as on rainfall and temperature conditions. Length of residual control will decrease as temperature and precipitation increase. Tacoma Ag Flumi 51 rates of 6 to 12 oz./A are required to provide residual control of the weeds listed in Table 10.

#### PREEMERGENCE APPLICATION

Apply 6 to 12 oz. (0.188 to 0.38 lb. ai/A) of Tacoma Ag Flumi 51 per broadcast acre as a preemergence application. Make preemergence (prior to weed emergence) applications of Tacoma Ag Flumi 51 to a weed-free soil surface. Preemergence applications of Tacoma Ag Flumi 51 must be completed prior to weed emergence. Moisture is necessary to activate Tacoma Ag Flumi 51 on soil for residual weed control. Dry weather following application of Tacoma Ag Flumi 51 may reduce effectiveness. However, when adequate moisture is received after dry conditions, Tacoma Ag Flumi 51 will control susceptible germinating weeds.

#### POSTEMERGENCE APPLICATION

Apply 6 to 12 oz. (0.188 to 0.38 lb. ai/A) of Tacoma Ag Flumi 51 per broadcast acre plus an adjuvant (0.25% v/v non-ionic surfactant or 1 qt./A crop oil concentrate). The addition of an adjuvant enhances Tacoma Ag Flumi 51 activity on emerged weeds. Thorough spray coverage is necessary to maximize the postemergence activity of Tacoma Ag Flumi 51. Emerged weeds are controlled postemergence with Tacoma Ag Flumi 51, however, translocation of Tacoma Ag Flumi 51 within a weed is limited, and control is affected by spray coverage and by the addition of an adjuvant. The most effective postemergence weed control with Tacoma Ag Flumi 51 occurs when applied in combination with a surfactant to weeds less than 2 inches in height. Use a tank mix partner in combination with Tacoma Ag Flumi 51 for the postemergence control of weeds larger than 2 inches. Advised tank mix partners are listed in Table 14.

**IMPORTANT:** Completely read and follow the label of any potential tank mix partner with Tacoma Ag Flumi 51. When using tank mixtures, use conditions must be in accordance with the most restrictive of the label limitations and precautions on either herbicide label.

Table 14. Tank Mix Combination to Maintain Bare Ground on Non-Crop Areas

glyphosate 2,4-D	glufosinate	paraquat
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# STORAGE AND DISPOSAL

Do not contaminate water, food or feed by storage, disposal or cleaning of equipment.

**PESTICIDE STORAGE:** Keep pesticide in original container. Store in a cool, dry, secure place. Do not put formulation or dilute spray solution into food or drink containers. Do not contaminate food or foodstuffs. Do not store or transport near feed or food. Not for use or storage in or around the home.

**PESTICIDE DISPOSAL:** Wastes resulting from the use of this product may be disposed of on site or at an approved waste disposal facility.

# **CONTAINER HANDLING:**

Nonrefillable container. Do not reuse or refill this container. Offer for recycling, if available. Triple rinse container (or equivalent) promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank. Fill the container ¼ full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times. Then offer for recycling, if available or puncture and dispose of in a sanitary landfill.

#### CONDITION OF SALE AND LIMITATION OF WARRANTY AND LIABILITY

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

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