

Specimen Label

AMINOPYRALID	GROUP	4	HERBICIDE
FLORPYRAUXIFEN-BENZYL	GROUP	4	HERBICIDE



TerraVue™
with Rinskor™ active

HERBICIDE

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For control of annual and perennial broadleaf weeds including invasive and noxious weeds, certain annual grasses, and certain woody plants and vines, on:

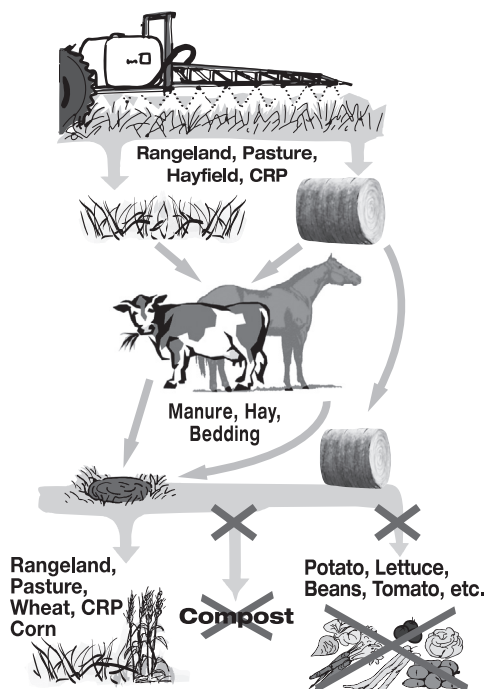
- rangeland, permanent grass pastures (including grasses grown for hay*), and Conservation Reserve Program (CRP);
- non-crop areas for example, airports, barrow ditches, communication transmission lines, electric power and utility rights-of-way, fencerows, gravel pits, industrial sites, military sites, mining and drilling areas, oil and gas pads, non-irrigation ditch banks, parking lots, petroleum tank farms, pipelines, roadsides, railroads, storage areas, dry storm water retention areas, substations, and
- natural areas (open space) for example, campgrounds, parks, prairie management, trailheads and trails, recreation areas, wildlife openings, and wildlife habitat and management areas including seasonally dry flood plains, deltas, marshes, prairie potholes, or vernal pools;
- including grazed areas in and around these sites.

* Hay from grass treated with TerraVue within the preceding 18 months can only be used on the farm or ranch where the product is applied unless allowed by supplemental labeling

IMPORTANT USE PRECAUTIONS AND RESTRICTIONS TO PREVENT INJURY TO DESIRABLE PLANTS

- Carefully read the section *Restrictions in Hay or Manure Use*.
- It is mandatory to follow the Use Precautions and Use Restrictions on this label.
- Manure and urine from animals consuming grass or hay treated with this product may contain enough aminopyralid and florypyrauxifen-benzyl to cause injury to sensitive broadleaf plants.
- Hay can only be used on the farm or ranch where product is applied unless allowed by supplemental labeling.
- Consult with a Dow AgroSciences representative if you do not understand the Use Precautions and Use Restrictions. Call 1-800-258-3033 Customer Information Group.

Forage and Manure Management



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Active Ingredient:

2-pyridinecarboxylic acid, 4-amino-3,6-dichloro-, potassium salt	71.01%
florpyrauxifen-benzyl: 2-pyridinecarboxylic acid, 4-amino-3-chloro-6-(4-chloro-2-fluoro-3-methoxy-phenyl)-5-fluoro-, phenyl methyl ester	6.00%
Other Ingredients	22.99%
Total	100.00%

Acid Equivalent: aminopyralid (2-pyridine carboxylic acid, 4-amino-3,6-dichloro-) 60%

Contains 0.71 pound potassium salt of aminopyralid and 0.06 pound florpyrauxifen-benzyl per pound of product.

Precautionary Statements

Hazards to Humans and Domestic Animals

EPA Reg. No. 62719-738

Keep Out of Reach of Children

CAUTION

Causes Moderate Eye Irritation.

Avoid contact with eyes or clothing.

Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco, or using the toilet.

Personal Protective Equipment (PPE)

Applicators and other handlers must wear:

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

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.

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

User Safety Recommendations

Users should:

- Wash thoroughly with soap and water after handling and 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.

First Aid

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 eye. Call a poison control center or doctor for treatment advice.

Have the product container or label with you when calling a poison control center or doctor, or going for treatment. You may also contact 1-800-992-5994 day or night, for emergency treatment information.

Environmental Hazards

Do not apply directly to water. Take care to minimize the incidental overspray along the shoreline when applying to terrestrial plants at the water's edge or to water in areas where surface water is present. Do not apply directly to intertidal areas below the mean high water mark. Drift and runoff from ground or aerial applications is likely to result in damage to sensitive aquatic organisms in water bodies adjacent to the treatment area. Do not contaminate water when disposing of equipment washwater or rinsate.

This chemical has properties and characteristics associated with chemicals detected in groundwater. The use of this chemical in areas where soils are permeable, particularly where the water table is shallow, may result in groundwater contamination. Application around a cistern or well may result in contamination of drinking water or groundwater.

Directions for Use

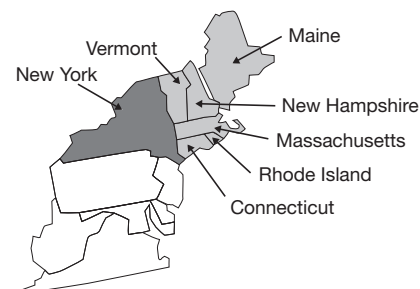
It is a violation of Federal law to use this product in a manner inconsistent with its labeling.

Read all Directions for Use carefully before applying.

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.

Not For Sale, Distribution, or Use in New York State.

Not for use on pastures in Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, and Vermont. All other labeled uses are permitted in these states including grazed areas in and around these sites.



Light grey = states where use in pastures is not permitted
Dark grey = NY where the product is not registered

Agricultural Use Requirements

Use this product only in accordance with its labeling and with the Worker Protection Standard, 40 CFR part 12.850. This Standard contains requirements for the protection of agricultural workers on farms, forests, nurseries, and greenhouses, and handlers of agricultural pesticides. It contains requirements for training, decontamination, notification, and emergency assistance. It also contains specific instructions and exceptions pertaining to the statements on this label about Personal Protective Equipment (PPE) and restricted-entry interval. The requirements in this box only apply to uses of this product that are covered by the Worker Protection Standard.

Do not enter or allow worker entry into treated areas during the restricted entry interval (REI) of 48 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 any 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 12.850). The WPS does not pertain to non-agricultural use on sites, such as, rangeland, permanent grass pastures, or non-cropland. See the Agricultural Use Requirements section below for information where the WPS applies.

Entry Restrictions for Non-WPS Uses: For applications on rangeland and permanent grass pastures (not harvested for hay) and non-cropland areas, do not enter or allow worker entry into treated areas until sprays have dried.

Storage and Disposal

Do not contaminate water, food, feed, or fertilizer by storage or disposal. Open dumping is prohibited.

Pesticide Storage: Store in original container only. Keep container closed when not in use. Do not store near food or feed. In case of spill or leak on floor or paved surfaces, soak up with vermiculite, earth, or synthetic absorbent.

Pesticide Disposal: Wastes resulting from the use of this product must be disposed of on site or at an approved waste disposal facility.

Nonrefillable containers 5 gallons or less:

Container Handling: Nonrefillable container. Do not reuse or refill this container. Offer for recycling if available, or puncture and dispose of in a sanitary landfill, or by incineration, or by other procedures allowed by state and local authorities.

Triple rinse or pressure rinse container (or equivalent) promptly after emptying. **Triple rinse** as follows: Empty the remaining contents into application equipment or a mix tank and drain for 10 seconds after the flow begins to drip. Fill the container 1/4 full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times. **Pressure rinse** as follows: Empty the remaining contents into application equipment or a mix tank and continue to drain for 10 seconds after the flow begins to

Storage and Disposal (Cont.)

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

Refillable containers larger than 5 gallons:

Container Handling: Refillable container. Refill this container with pesticide only. Do not reuse this container for any other purpose. Cleaning the container before final disposal is the responsibility of the person disposing of the container. Cleaning before refilling is the responsibility of the refiller. To clean the container before final disposal, empty the remaining contents from this container into application equipment or a mix tank. Fill the container about 10% full with water. Agitate vigorously or recirculate water with the pump for two minutes. Pour or pump rinsate into application equipment or rinsate collection system. Repeat this rinsing procedure two more times. Then offer for recycling if available, or puncture and dispose of in a sanitary landfill, or by incineration, or by other procedures allowed by state and local authorities.

Nonrefillable containers larger than 5 gallons:

Container Handling: Nonrefillable container. Do not reuse or refill this container. Offer for recycling if available, or puncture and dispose of in a sanitary landfill, or by incineration, or by other procedures allowed by state and local authorities.

Triple rinse or pressure 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 1/4 full with water. Replace and tighten closures. Tip container on its side and roll it back and forth, ensuring at least one complete revolution, for 30 seconds. Stand the container on its end and tip it back and forth several times. Turn the container over onto its other end and tip it back and forth several times. Empty the rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Repeat this procedure two more times. **Pressure rinse** as follows: Empty the remaining contents into application equipment or a mix tank and continue to drain for 10 seconds after the flow begins to drip. Hold container upside down over application equipment or mix tank and continue to drain for 10 seconds after the flow begins to drip. Hold container upside down over application equipment or mix tank or collect rinsate for later use or disposal. Insert pressure rinsing nozzle in the side of the container, and rinse at about 40 psi for at least 30 seconds. Drain for 10 seconds after the flow begins to drip.

Product Information

Resistance Management Guidelines

- Development of plant populations resistant to this herbicide mode of action is usually not a problem on rangeland, permanent grass pastures, or CRP since these sites receive infrequent pesticide applications.
- Similar looking biotypes of a given weed species occurring in a treated area may vary in their susceptibility to a herbicide. Application of a herbicide below its specified rate may allow more tolerant weeds to survive and a shift to more tolerant biotypes within the treated area.
- Where identified, spreading of resistant weeds to other fields may be prevented by cleaning harvesting and tillage equipment before moving to other areas and by planting weed-free seed.
- Scout before 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 mowing.
- Use tank mixtures with herbicides from a different group if such use is permitted. Where information on resistance in target weed 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.
- 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 extension specialist, certified crop consultant, or Dow AgroSciences representative for the latest resistance management information.

Use Precautions

- Applications made during periods of intense rainfall, to soils saturated with water, surfaces paved with materials such as asphalt or concrete, or soils through which rainfall will not readily penetrate may result in runoff and movement of TerraVue. Injury to crops may result if treated soil and/or runoff water containing TerraVue is washed, or moved onto land used to produce crops. Exposure to TerraVue may injure or kill susceptible crops and other plants, such as grapes, soybeans, tobacco, sensitive ornamentals.
- **Grass revegetation**
TerraVue can be used to control broadleaf plants in grass revegetation programs. Consult Dow AgroSciences' literature for more details about TerraVue applications and grass stand establishment.
- **Application before seeding grasses**
 - **Preemergence:** Tall fescue, orchardgrass, timothy, and annual ryegrass can be reseeded after a minimum of 15 days following an application of 2.85 oz per acre of TerraVue. Sorghum-sudangrass, teff, crabgrass, and pearl millet can be seeded a minimum of 30 days following an application of 2.85 oz per acre of TerraVue. When using higher rates or on other grass species wait a minimum of 45 days after an application of TerraVue.
 - **Postemergence applications on grass:** During the season of establishment, TerraVue should be applied only after perennial grasses are well established have developed a good secondary root system and show good vigor. Most perennial grasses are tolerant to TerraVue at this stage of development. TerraVue may suppress certain established grasses, such as smooth brome grass (*Bromus inermis*), especially when plants are stressed by adverse environmental conditions. Plants should recover from this transient suppression with the onset of environmental conditions favorable to grass growth and upon release from weed competition. Tall fescue, orchardgrass, timothy, and annual ryegrass are tolerant of 2.85 oz per acre of TerraVue once plants have developed 3, collared leaves.
- **Seeding Broadleaf Plants (Forbs) and Wildflowers**
TerraVue can be applied in the summer to control broadleaf weeds prior to forb planting. Forbs can be seeded 90 days after a summer application as a dormant fall planting or the following spring. Consult Dow AgroSciences literature for details.
- **Field Bioassay Instructions:** In fields previously treated with this product, plant short test rows of the intended rotational crop across the original direction of application in a manner to sample variability in field conditions such as soil texture, soil organic matter, soil pH, rainfall pattern, or drainage. The field bioassay can be initiated one year after the last application of aminopyralid and floupyrauxifen-benzyl in that field. Observe the test crop for symptoms of herbicidal activity, such as poor stand (effect on seed germination), chlorosis (yellowing), epinasty, and necrosis (dead leaves or shoots), or stunting (reduced growth). If herbicidal symptoms do not occur, the test crop can be grown. If there is apparent herbicidal activity, do not plant the field to the intended rotational crop; plant only to wheat, forage grasses, native grasses or grasses grown for hay.

Pasture and Rangeland Restrictions

- **Do not use grasses treated with TerraVue in the preceding 18 months for hay intended for export outside the United States.**
- **Hay and silage from areas treated with TerraVue in the preceding 18 months can NOT be distributed or made available for sale off the farm or ranch where harvested unless allowed by supplemental labeling.**
- **Hay from areas treated with this product in the preceding 18 months can NOT be used for silage, haylage, baylage, and green chop unless allowed by supplemental labeling.**
- **Do not move hay and silage made from grass treated with TerraVue within the preceding 18 months off farm unless allowed by supplemental labeling.**
- **Do not use hay, silage, and manure from areas treated with TerraVue within the preceding 18 months or manure from animals feeding on hay treated with TerraVue in compost.**
- **Do not use grasses treated with TerraVue in the preceding 18 months for seed production.**

Restrictions for All Uses

- Do not reformulate or repackage this product into other end-use products.
- Do not treat frozen soil where runoff could damage sensitive plants.
- Use 2 or more gallons of spray solution per acre.
- Do not make more than two applications per year.
- Do not apply within 30 days of previous application.
- If grass is to be cut for hay, Agricultural Use Requirements for the Worker Protection Standard are applicable.
- **Maximum Application Rate**
 - On all labeled use sites (except total vegetation control areas and non-crop areas that are not grazed or hayed), do not broadcast apply more than 2.85 oz per acre of TerraVue (0.126 lbs aminopyralid and 0.0106 lbs florpyrauxifen-benzyl) per year. The total amount of TerraVue applied broadcast, as a re-treatment, and/or spot treatment must not exceed 2.85 oz per acre. Spot treatments may be applied at an equivalent broadcast rate of up to 5.7 oz of TerraVue (0.252 lbs aminopyralid and 0.0213 lbs florpyrauxifen-benzyl) per acre per annual growing season; however, not more than 50% of an acre may be treated at that rate.
 - For total vegetation control and non-crop areas that are not grazed or hayed, do not apply more than a total of 5.7 oz per acre of TerraVue (0.252 lbs aminopyralid and 0.0213 lbs florpyrauxifen-benzyl) per year as a result of broadcast, spot, or repeat applications.
- Obtain Required Permits: Consult with appropriate state or local water authorities before applying this product around public waters. State or local public agencies may require permits.
- **Avoiding Injury to Non-Target Plants:** Do not aerially apply TerraVue within 50 feet of a border downwind (in the direction of wind movement), or allow spray drift to come in contact with, any broadleaf crop or other desirable broadleaf plants, including, but not limited to, alfalfa, cotton, dry beans, flowers, grapes, lettuce, potatoes, radishes, soybeans, sugar beets, sunflowers, tobacco, tomatoes or other broadleaf or vegetable crop, fruit trees, ornamental plants, or soil where sensitive crops are growing or will be planted. Avoid application under conditions that may allow spray drift because very small quantities of spray may seriously injure susceptible crops. Read and follow the Spray Drift Management and Spray Drift Advisories sections of this label.
- **Chemigation:** Do not apply this product through any type of irrigation system.
- **Do not contaminate water intended for irrigation or domestic purposes.** Do not treat inside banks or bottoms of irrigation ditches, either dry or containing water, or other channels that carry water that may be used for irrigation or domestic purposes.
- Do not apply this product to lawns, turf, ornamental plantings, urban walkways, driveways, tennis courts, golf courses, athletic fields, commercial sod operations, or other high-maintenance, fine turfgrass areas, or similar areas.
- Trees adjacent to or in a treated area can occasionally be affected by root uptake of TerraVue. Do not apply TerraVue within the root zone of desirable trees unless such injury can be tolerated. Use special caution near roses, and leguminous trees such as locusts, redbud, mimosa, and caragana.
- Do not treat frozen soil where runoff could damage sensitive plants.
- **Grazing and Haying Restrictions:** There are no restrictions on grazing or grass hay harvest following application of TerraVue at labeled rates. Cutting hay too soon after spraying weeds will reduce weed control. After application wait 14 days after herbicide application to cut grass hay to allow herbicide to work. Do not transfer grazing animals from areas treated with TerraVue to areas where sensitive broadleaf crops occur without first allowing 3 days of grazing on an untreated pasture. Otherwise, urine and manure may contain enough aminopyralid and florpyrauxifen-benzyl to cause injury to sensitive broadleaf plants.
- **Grazing Poisonous Plants:** Herbicide application may increase palatability of certain poisonous plants. Do not allow livestock to graze treated areas until poisonous plants are dry and no longer palatable to livestock.
- **Restrictions in Hay or Manure Use:**
 - Do not use aminopyralid-treated or florpyrauxifen-benzyl-treated plant residues, including grass, wood plants, trees, hay, or straw from areas treated within the preceding 18 months, in compost, mulch wood chips, or mushroom spawn.
 - Do not use manure from animals that have eaten aminopyralid-treated or florpyrauxifen-benzyl-treated forage or hay within the previous 3 days in compost, mulch, or mushroom spawn. Livestock must have 3 days of eating non-aminopyralid-treated or florpyrauxifen-benzyl-treated materials in order to clear their system of aminopyralid and florpyrauxifen-benzyl. Do not use aminopyralid-treated or florpyrauxifen-benzyl-treated plants in areas where commercially grown mushrooms or susceptible broadleaf plants may be grown.
 - Do not spread manure from animals that have consumed aminopyralid-treated or florpyrauxifen-benzyl-treated forage or hay

within the previous 3 days on land used for growing susceptible broadleaf crops.

- Manure from animals that have consumed aminopyralid-treated or florpyrauxifen-benzyl-treated forage or hay within the previous 3 days may only be used on areas used for pasture, grass grown for seed, wheat, and corn.
- Do not plant a broadleaf crop (including soybeans, sunflower, tobacco, vegetables, field beans, peanuts, and potatoes) in fields or areas treated with aminopyralid or florpyrauxifen-benzyl-treated or manure from animals that have grazed forage or eaten hay harvested from aminopyralid-treated or florpyrauxifen-benzyl-treated areas until an adequately sensitive field bioassay is conducted to determine that the aminopyralid and florpyrauxifen-benzyl concentration in the soil is at level that is not injurious to the crop to be planted.
- Do not plant a broadleaf crop in fields or areas treated in the previous year with manure from animals that have consumed aminopyralid-treated or florpyrauxifen-benzyl-treated forage or hay until an adequately sensitive field bioassay is conducted to determine that the aminopyralid and florpyrauxifen-benzyl concentration in the soil is at level that is not injurious to the crop to be planted.
- To promote herbicide decomposition, plant residues must be evenly incorporated in the surface soil or burned. Breakdown of aminopyralid and florpyrauxifen-benzyl in plant residues or manure is more rapid under warm, moist soil conditions and may be enhanced by supplemental irrigation.
- **Crop Rotation:** Do not rotate to any crop from rangeland, permanent pasture, or CRP acres within one year following treatment. Cereals and corn can be planted one year after treatment. Broadleaf crops are sensitive to aminopyralid and florpyrauxifen-benzyl residues in the soil, and prediction of crop safety by field bioassay (see instructions below) is the best way to determine planting options. Broadleaf crops such as canola, flax, and alfalfa can require **at least 2 to 3 years** depending on the crop and environmental conditions. More sensitive crops such as soybeans, tobacco, peanuts, potatoes, and peas may require a longer plant back interval and should not be planted until a field bioassay shows that the level of aminopyralid and florpyrauxifen-benzyl present in the soil will not adversely affect that broadleaf crop.
- Consult with a Dow AgroSciences representative if you do not understand the Use Precautions and Use Restrictions. Call 1-800-258-3033 for more information.

Spray Drift Management

Avoiding spray drift at the application site is the responsibility of the applicator. A variety of factors can influence pesticide drift such as weather conditions (e.g., wind direction, wind speed, temperature, relative humidity), method of application (e.g., ground, aerial), and application equipment (e.g., airblast, chemigation). The interaction of many equipment-related and weather-related factors determine the potential for spray drift. The applicator and the grower are responsible for considering all these factors when making decisions. Ultimately, the applicator must evaluate all factors at the time of application, and make appropriate adjustments when applying this product to avoid off-target movement or delay application until the pesticide can be applied safely. Moreover, the applicator is responsible for avoiding spray drift for individual pesticide applications

Aerial Applications

- Do not release spray at a height greater than 10 feet above the vegetative canopy unless a greater application height is necessary for pilot safety. This requirement does not apply to forestry or rights-of-way applications.
- Applicators are required to use a coarse to coarser droplet size (ASABE S572.1).
- The boom length must not exceed 75% of the wingspan for airplanes or 85% of the rotor blade diameter for helicopters.
- Applicators must use 1/2 swath displacement upwind at the downwind edge of the field.
- Nozzles must be oriented so the spray is directed toward the back of the aircraft.
- Do not apply when wind speeds exceed 10 miles per hour at the application site.
- Do not apply during temperature inversions.

Ground Boom Applications

- Apply with the nozzle height recommended by the manufacturer, but no more than 4 feet above the ground or crop canopy.
- Applicators are required to use a coarse to coarser droplet size (ASABE S572.1).
- Do not apply when wind speeds exceed 10 miles per hour at the application site.
- Do not apply during temperature inversions.

Spray Drift Advisories

THE APPLICATOR IS RESPONSIBLE FOR AVOIDING OFF-SITE SPRAY DRIFT. BE AWARE OF NEARBY NON-TARGET SITES AND ENVIRONMENTAL CONDITIONS.

IMPORTANCE OF DROPLET SIZE

An effective way to reduce spray drift is to apply large droplets. Use the largest droplets that provide target pest control. While applying larger droplets will reduce spray drift, the potential for drift will be greater if applications are made improperly or under unfavorable environmental conditions.

Controlling Droplet Size – Ground Boom

- **Volume:** Increasing the spray volume so that larger droplets are produced will reduce spray drift. Use the highest practical spray volume for the application. If a greater spray volume is needed, consider using a nozzle with a higher flow rate.
- **Pressure:** Use the lowest spray pressure recommended for the nozzle to produce the target spray volume and droplet size.
- **Spray Nozzle:** Use a spray nozzle that is designed for the intended application. Consider using nozzles designed to reduce drift.

Controlling Droplet Size – Aircraft

- **Adjust Nozzles:** Follow nozzle manufacturer's recommendations for setting up nozzles. Generally, to reduce fine droplets, nozzles should be oriented parallel with the airflow in flight.

BOOM HEIGHT – Ground Boom

Use the lowest boom height that is compatible with the spray nozzles that will provide uniform coverage. For ground equipment, the boom should remain level with the crop and have minimal bounce.

RELEASE HEIGHT - Aircraft

Higher release heights increase the potential for spray drift. When applying aerially to crops, do not release spray at a height greater than 10 ft above the crop canopy unless a greater application height is necessary for pilot safety.

SHIELDED SPRAYERS

Shielding the boom or individual nozzles can reduce spray drift. Consider using shielded sprayers. Verify that the shields are not interfering with the uniform deposition of the spray on the target area.

TEMPERATURE AND HUMIDITY

When making applications in hot and dry conditions, use larger droplets to reduce effects of evaporation.

TEMPERATURE INVERSIONS

Drift potential is high during a temperature inversion. Temperature inversions are characterized by increasing temperature with altitude and are common on nights with limited cloud cover and light to no wind. The presence of an inversion can be indicated by ground fog or by the movement of smoke from a ground source or an aircraft smoke generator. Smoke that layers and moves laterally in a concentrated cloud (under low wind conditions) indicates an inversion, while smoke that moves upward and rapidly dissipates indicates good vertical air mixing. Avoid applications during temperature inversions.

WIND

Drift potential generally increases with wind speed. AVOID APPLICATIONS DURING GUSTY WIND CONDITIONS. Applicators need to be familiar with local wind patterns and terrain that could affect spray drift

Sprayer Clean-Out Instructions

It is recommended to use separate spray equipment on highly sensitive crops such as tobacco, soybeans, potatoes, peanuts, and tomatoes. Do not use spray equipment used to apply TerraVue for other applications to land planted to, or to be planted to, broadleaf plants unless it has been determined that all residues of this herbicide have been removed by thorough cleaning of equipment.

Equipment used to apply TerraVue should be thoroughly cleaned before reusing to apply any other chemicals as follows:

1. Rinse and flush application equipment thoroughly after use including nozzles, screens, filter, and end caps of sprayers. Dispose of rinse water in non-cropland area away from water supplies.
 2. Rinse a second time, adding 1 quart of household ammonia or tank cleaning agent for every 25 gallons of water. Circulate the solution through the entire system so that all internal surfaces are contacted (15 to 20 minutes). Let the solution stand for several hours, preferably overnight.
 3. Flush the solution out of the spray tank through the boom.
 4. Rinse the system twice with clean water, recirculating and draining each time.
 5. Spray nozzles and screens should be removed and cleaned separately.
- Do not apply this product with mist blower systems that deliver very fine spray droplets. Use of mist blower equipment can reduce control achieved with the herbicide and increase spray drift potential.

Application Methods

Apply the specified rate of TerraVue as a coarse to coarser low-pressure spray. Do not apply this product with mist blower systems that deliver very fine spray droplets. Spray volume should be sufficient to uniformly cover foliage or intended application site. Increase the spray volume to ensure thorough and uniform coverage when target vegetation is tall and/or dense. To enhance foliage wetting and coverage, a non-ionic agricultural surfactant or other adjuvant may be added to the spray mixture as specified by the adjuvant label.

TerraVue may be applied by ground or aerial application equipment on any registered use site specified on this label.

Ground Broadcast Application: Higher spray volumes (greater than 10 gallons per acre) generally provide better coverage and better control, particularly in dense and/or tall foliage.

Aerial Broadcast Application: Do not apply less than 2 gallons per acre total spray volume. Five gallons per acre or greater will generally provide better coverage and better control, particularly in dense and/or tall foliage.

High-Volume Foliar Application: High volume foliar treatments may be applied at rates equivalent to a maximum of 2.85 oz per acre per year. Use sufficient spray volume to thoroughly and uniformly wet foliage and stems.

For basal bark and cut stubble and all types of cut surface applications, see woody plant control section.

Low-Volume Foliar Treatment: To control susceptible woody plants, use TerraVue alone or in tank mixes with other herbicides in water. The spray concentration of TerraVue tank mixes and total spray volume per acre should be adjusted according to the size and density of target woody plants and type of spray equipment used. With low-volume application, use sufficient spray volume to obtain uniform coverage of target plants including the surfaces of all foliage, stems, and root collars. For best results, an adjuvant should be added to all spray mixtures. Match equipment and delivery rate of spray nozzles to height and density of woody plants. When treating tall, dense brush, a truck mounted spray gun with spray tips that deliver up to 2 gallons per minute at 40 to 60 psi may be required. Backpack or other types of specialized spray equipment with spray tips that deliver less than 1 gallon of spray per minute may be appropriate for short, low to moderate density brush.

Spot Application: Spot treatments may be applied at an equivalent broadcast rate of up to 5.7 oz of TerraVue per acre per year; however, if area is hayed or grazed, not more than 50% of an acre may be treated at that rate. Do not apply more than a total of 5.7 oz per acre of TerraVue per year as a result of broadcast, spot, or repeat applications. Spray volume should be sufficient to thoroughly and uniformly wet weed foliage, but not to the point of runoff. Repeat treatments may be made, but the total amount of TerraVue applied must not exceed 2.85 oz per acre per year. To prevent misapplication, spot treatments should be applied with a calibrated sprayer with a known volume per acre.

Mixing Instructions

Mixing with Water

To prepare the spray, add about half the required amount of water in the spray tank. Then, with agitation, add the specified amount of TerraVue and other herbicides, if tank mixing. Finally, with continued agitation, add the rest of the water and additives such as adjuvants, surfactants or drift control and deposition aids.

Addition of Surfactants or Adjuvants on All Labeled Use Sites: The addition of a high quality non-ionic surfactant (of at least 80% active principal), methylated seed oil at 0.5 to 1.0 % volume per volume (2 to 4 quarts per 100 gallons of spray), or blended adjuvants (rate as directed on specific label) is allowed to enhance herbicide activity.

TerraVue – Tank Mixes

DO NOT TANK MIX ANY PESTICIDE PRODUCT WITH THIS PRODUCT without first referring to the following website for the specific product: www.terravuetankmix.com. This website contains a list of active ingredients that are currently prohibited from use in tank mixture with this product.

Continuous agitation is required for tank mixes. Sparger pipe agitators generally provide the best agitation in spray tanks.

TerraVue at rates of up to 2.85 oz per acre may be mixed with labeled rates of other labeled herbicides to broaden the spectrum of weeds and brush controlled or to improve control of certain weeds.

Tank Mixing Restrictions

Only use products in tank mixture with this product that: 1) are registered for the intended use site, application method and timing; and 2) are not prohibited for tank mixing by the label of the tank mix product; and 3) do not contain one of the prohibited active ingredients listed on the www.terravuetankmix.com website.

Applicators and other handlers (mixers) must access the website within one week prior to application in order to comply with the most up-to-date information on tank mix partners.

Do not exceed specified application rates for respective products or maximum allowable application rates for any active ingredient in the tank mix.

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

Always perform a jar test to ensure the compatibility of products to be used in tank mixture.

Tank Mixing Precautions

Ensure TerraVue is fully dispersed in water BEFORE adding other liquid products as this could affect the ability of TerraVue or other dry formulations from fully dispersing. For direct injection or other spray equipment where the product formulations will be mixed in undiluted form, special care should be taken to ensure tank mix compatibility.

Tank Mix Compatibility Testing: Perform a jar test prior to mixing in a spray tank to ensure compatibility of TerraVue and other pesticides or carriers. Use a clear glass jar with lid and mix ingredients in the same order and proportions as will be used in the spray tank. The mixture is compatible if the materials mix readily when the jar is inverted several times. The mixture should remain stable after standing for 30 minutes or, if separation occurs, should readily remix if agitated. An incompatible mixture is indicated by separation into distinct layers that do not readily remix when agitated and/or the presence of flakes, precipitates, gels, or heavy oily film in the jar. Use of an appropriate compatibility aid may resolve mix incompatibility. If the mixture is incompatible do not use that tank mix partner in tank mixtures.

Mixing with Sprayable Liquid Fertilizer Solutions

TerraVue is usually compatible with liquid fertilizer solutions. It is anticipated that TerraVue will not require a compatibility agent for mixing with fertilizers; however, a compatibility test (jar test) should be made prior to mixing. Jar tests are particularly important when a new batch of fertilizer or pesticide is used, when water sources change, or when tank mixture ingredients or concentrations are changed. Compatibility may be determined by mixing the spray components in the desired order and proportions in a clear glass jar before large scale mixing of spray components in the spray tank. **Note:** The lower the temperature of the liquid fertilizer, the greater the likelihood of mixing problems. Use of a compatibility aid may be required if TerraVue is mixed with a 2,4-D-containing product and liquid fertilizer. **Mixing TerraVue and 2,4-D in N-P or N-P-K liquid fertilizer solutions is more difficult than mixing with straight nitrogen fertilizer and should not be attempted without first conducting a successful compatibility jar test.** Agitation in the spray tank must be vigorous to be comparable with jar test agitation.

Apply the spray mixture the same day it is prepared while maintaining continuous agitation. Rinse the spray tank thoroughly after use.

Note: Foliar-applied liquid fertilizers themselves can cause yellowing of the foliage of forage grasses and other vegetation.

Use Rates and Timing

TerraVue may be applied as a broadcast spray by ground or aerial equipment or as a spot application to control weeds listed on this label. When a rate range is given use the higher rate to control weeds at advanced growth stages, or under less than favorable growing conditions, or for longer residual control. Best results are obtained when spray volume is sufficient to provide uniform coverage of treated weeds. For optimum uptake and translocation of the herbicide, avoid mowing, haying, shredding, burning, or soil disturbance in treated areas for at least 14 days following application.

TerraVue provides post emergence control and preemergence control of emerging seedlings of susceptible weeds and re-growth of certain perennial weeds following application. Preventing establishment of weeds will depend upon application rate, season of application, and environmental conditions after application.

TerraVue can provide long-term control of susceptible weeds. The length of control is dependent upon the application rate, condition and growth stage of target weeds, environmental conditions at and following application, and the density and vigor of competing desirable vegetation. Long-term weed control is most effective where grass vegetation is allowed to recover from overgrazing, drought, etc., and compete with weeds.

TerraVue can be an important component of integrated vegetation management programs designed to renovate or restore desired plant communities. To maximize and extend the benefits of weed control provided by TerraVue, it is important that other vegetation management practices, including proper grazing management, biological control agents, replanting, fertilization, prescribed fire, etc., be used in appropriate sequences and combinations to further alleviate the adverse effects of weeds on desirable plant species and to promote development of desired plant communities. Agricultural and natural resources specialists with federal and state government agencies can provide guidance on best management practices and development of integrated vegetation management programs.

Plants Controlled

The following weeds and woody plants will be controlled with the rates of TerraVue indicated below (Table 1). For best results, apply when weeds and woody plants are actively growing and under conditions favorable for growth. Use a higher rate in the rate range when growing conditions are less than favorable or when weed foliage is tall and dense, or when optimal longer term residual control is desired. TerraVue also provides preemergence control of germinating seeds or seedlings of susceptible weeds following application.

Table 1: Weeds and Woody Plants Controlled

Note: Numbers in parentheses (-) refer to specific use directions for a particular weeds species.

Common Name	Scientific Name	Rate Range (oz/acre)	Life Cycle	Plant Family
actinomeris, wingstem	<i>Verbesina alternifolia</i>	2.85	perennial	Asteraceae
amaranth, palmer	<i>Amaranthus palmeri</i>	2.85	annual	Amaranthaceae
amaranth, spiny ^a	<i>Amaranthus spinosus</i>	2 to 2.85	annual	Amaranthaceae
bedstraw	<i>Galium spp.</i>	2 to 2.85	perennial	Rubiaceae
beebalm, pony (horsemint)	<i>Monarda pectinata</i>	2.85	annual	Lamiaceae
beggarticks	<i>Bidens spp.</i>	2 to 2.85	annual	Asteraceae
blackbrush	<i>Acacia rigidula</i>	2.85	perennial	Fabaceae
broomweed, annual ^a	<i>Amphiachyris dracunculoides</i>	2 to 2.85	annual	Asteraceae
buffalobur	<i>Solanum rostratum</i>	2 to 2.85	annual	Solanaceae
bullnettle, Texas	<i>Cnidoscolus texanus</i>	2.85	perennial	Euphorbiaceae
burdock, common	<i>Arctium minus</i>	2 to 2.85	biennial	Asteraceae
buttercup, hairy ^a	<i>Ranunculus sardous</i>	2 to 2.85	annual	Ranunculaceae
buttercup, tall ^a	<i>Ranunculus acris</i>	2 to 2.85	perennial	Ranunculaceae
buttercup spp	<i>Ranunculus spp</i>	2 to 2.85	various	Ranunculaceae
camelthorn	<i>Alhagi pseudalhagi</i>	2 to 2.85	perennial	Fabaceae
caraway, common ^{a, b}	<i>Carum carvi</i>	2 to 2.85	biennial/ perennial	Apiaceae
carrot, wild ^{a, b}	<i>Daucus carota</i>	2 to 2.85	biennial	Apiaceae
cat's ear, common	<i>Hypochaeris radicata</i>	2 to 2.85	perennial	Asteraceae
cat's ear	<i>Hypochaeris spp</i>	2 to 2.85	perennial	Asteraceae
chamomile, scentless	<i>Matricaria inodora</i>	2 to 2.85	annual	Asteraceae
chicory ^{a, b}	<i>Cichorium intybus</i>	2 to 2.85	perennial	Asteraceae
chickweed, common ^a	<i>Stellaria media</i>	2.85	annual	Caryophyllaceae

Table 1: Weeds and Woody Plants Controlled (Cont.)**Note:** Numbers in parentheses (-) refer to specific use directions for a particular weeds species.

Common Name	Scientific Name	Rate Range (oz/acre)	Life Cycle	Plant Family
cinquefoil, sulfur (1) ^{a, b}	<i>Potentilla recta</i>	2 to 2.85	perennial	Rosaceae
coneflower, upright prairie	<i>Ratibida colomnifera</i>	2 to 2.85	perennial	Asteraceae
cocklebur, common ^a	<i>Xanthium strumarium</i>	2 to 2.85	annual	Asteraceae
clover	<i>Trifolium spp.</i>	2 to 2.85	perennial	Fabaceae
crazyweed	<i>Oxytropis</i>	2 to 2.85	perennial	Fabaceae
croton, woolly ^{a, b}	<i>Croton capitatus</i>	2 to 2.85	annual	Euphorbiaceae
croton, Texas	<i>Croton texensis</i>	2 to 2.85	annual	Euphorbiaceae
croton, tropic	<i>Croton glandulosus</i>	2 to 2.85	annual	Euphorbiaceae
crownvetch ^a	<i>Securigera varia</i>	2 to 2.85	perennial	Fabaceae
cudweed, purple	<i>Gamochaeta purpurea</i>	2 to 2.85	annual	Asteraceae
daisy, oxeye (1) ^{a, b}	<i>Leucanthemum vulgare</i>	2 to 2.85	perennial	Asteraceae
deadnettle, purple	<i>Lamium purpureum</i>	2 to 2.85	annual	Lamiaceae
dock, curly ^{a, b}	<i>Rumex crispus</i>	2 to 2.85	perennial	Polygonaceae
evening primrose, cutleaf ^a	<i>Oenothera laciniata</i>	2 to 2.85	annual	Onagraceae
falsedandelion, Carolina ^a	<i>Pyrrhopappus carolinianus</i>	2 to 2.85	annual/ biennial	Asteraceae
fiddleneck	<i>Amsinckia spp</i>	2 to 2.85	annual	Boraginaceae
fireweed	<i>Epilobium angustifolium</i>	2 to 2.85	perennial	Onagraceae
fleabane, flax-leaf	<i>Conyza bonariensis</i>	2 to 2.85	annual	Asteraceae
fleabane, hairy	<i>Conyza bonariensis</i>	2 to 2.85	annual/ biennial	Asteraceae
geranium, Carolina	<i>Geranium carolinianum</i>	2 to 2.85	annual	Geraniaceae
gumweed, curlycup	<i>Grindelia squarrosa</i>	2 to 2.85	biennial	Asteraceae
hawkweed, orange (2) ^{a, b}	<i>Hieracium aurantiacum</i>	2 to 2.85	perennial	Asteraceae
hawkweed, yellow (2) ^{a, b}	<i>Hieracium caespitosum</i>	2 to 2.85	perennial	Asteraceae
henbane, black	<i>Hyoscyamus niger</i>	2 to 2.85	annual/ biennial	Solanaceae
henbit ^a	<i>Lamium amplexicaule</i>	2 to 2.85	annual/ biennial	Lamiaceae
hogweed, giant	<i>Heracleum mantegazzianum</i>	2.85	perennial	Apiaceae
horehound	<i>Marrubium vulgare</i>	2.85	perennial	Lamiaceae
horsenettle, Carolina	<i>Solanum carolinense</i>	2 to 2.85	perennial	Solanaceae
horsenettle, western	<i>Solanum dimidiatum</i>	2 to 2.85	perennial	Solanaceae
horsetweed (maretail) ^a	<i>Conyza canadensis</i>	2 to 2.85	annual	Asteraceae
indigo, blue	<i>Baptisia australis</i>	2 to 2.85	perennial	Fabaceae
ironweed, tall	<i>Vernonia gigantea</i>	2 to 2.85	perennial	Asteraceae
ironweed, western	<i>Vernonia baldwinii</i>	2.85	perennial	Asteraceae
jimsonweed ^{a, b}	<i>Datura stamonium</i>	2.85	annual	Solanaceae
knapweed, diffuse (3) ^{a, b}	<i>Centaurea diffusa</i>	2 to 2.85	biennial/ perennial	Asteraceae
knapweed, meadow ^{a, b}	<i>Centaurea debeauxii</i>	2 to 2.85	perennial	Asteraceae
knapweed, Russian (4) ^{a, b}	<i>Acroptilon repens</i>	2 to 2.85	perennial	Asteraceae
knapweed, spotted (3) ^{a, b}	<i>Centaurea stoebe</i>	2 to 2.85	biennial/ perennial	Asteraceae
knapweed, squarrose ^{a, b}	<i>Centaurea virgata</i>	2 to 2.85	biennial/ perennial	Asteraceae
knotweeds, Japanese, bohemian (11)	<i>Reynoutria japonica</i>	2 to 2.85	perennial	Polygonaceae
kudzu	<i>Pueraria montana</i>	2.85	perennial	Fabaceae
lady's thumb	<i>Polygonum persicaria</i>	2 to 2.85	annual	Polygonaceae
lambsquarters, common ^a	<i>Chenopodium album</i>	2 to 2.85	annual	Chenopodiaceae
lespedeza, annual	<i>Lespedeza striata</i>	2 to 2.85	annual	Fabaceae
licorice, wild	<i>Glycyrrhiza lepidota</i>	2.85	perennial	Fabaceae
locoweed	<i>Astragalus spp.</i>	2 to 2.85	perennial	Fabaceae
locust, black	<i>Robinia pseudoacacia</i>	2.85	woody perennial	Fabaceae
locust, honey	<i>Gleditsia triacanthos</i>	2.85	woody perennial	Fabaceae
loosestrife, purple (12)	<i>Lythrum salicaria</i>	2 to 2.85	perennial	Lythraceae
marshelder, annual ^a	<i>Iva annua</i>	2 to 2.85	annual	Asteraceae
mayweed, scentless	<i>Tripleurospermum perforate</i>	2 to 2.85	annual	Asteraceae
mayweed, stinking	<i>Anthemis cotula</i>	2.85	annual	Asteraceae
medic, black	<i>Medicago lupulina</i>	2 to 2.85	perennial	Fabaceae
Mexican tea	<i>Dysphania ambrosioides</i>	2 to 2.85	annual/ perennial	Chenopodiaceae
mimosa	<i>Albizia julibrissin</i>	2.85	woody perennial	Fabaceae
mint, perilla	<i>Perilla frutescens</i>	2 to 2.85	perennial	Lamiaceae
mullein (5)	<i>Verbascum spp.</i>	2.85	biennial	Scrophulariaceae
nightshade, silverleaf	<i>Solanum elaeagnifolium</i>	2 to 2.85	perennial	Solanaceae
oxtongue, bristly	<i>Picris echioides</i>	2 to 2.85	biennial	Asteraceae
parsnip, wild ^{a, b}	<i>Pastinaca sativa</i>	2 to 2.85	biennial/ perennial	Apiaceae
pea, swainson	<i>Sphaerophysa salsula</i>	2 to 2.85	perennial	Fabaceae

Table 1: Weeds and Woody Plants Controlled (Cont.)**Note:** Numbers in parentheses (-) refer to specific use directions for a particular weeds species.

Common Name	Scientific Name	Rate Range (oz/acre)	Life Cycle	Plant Family
pepperweed, Virginia	<i>Lepidium virginicum</i>	2 to 2.85	annual	Brassicaceae
plantain, broadleaf ^a	<i>Plantago major</i>	2 to 2.85	perennial	Plantaginaceae
plantain, buckhorn ^a	<i>Plantago lanceolata</i>	2 to 2.85	perennial	Plantaginaceae
pokeweed, common	<i>Phytolacca Americana</i>	2 to 2.85	perennial	Phytolaccaceae
poison hemlock	<i>Conium maculatum</i>	2 to 2.85	biennial	Apiaceae
povertyweed	<i>Iva axillaris</i>	2 to 2.85	perennial	Asteraceae
pricklyash, lime	<i>Zanthoxylum fagara</i>	2.85	perennial	Fabaceae
ragweed, common ^{a, b}	<i>Ambrosia artemisiifolia</i>	2 to 2.85	annual	Asteraceae
ragweed, false	<i>Parthenium hysterophorus</i>	2.85	annual	Asteraceae
ragweed, western	<i>Ambrosia psilostachya</i>	2 to 2.85	perennial	Asteraceae
ragweed, giant	<i>Ambrosia trifida</i>	2 to 2.85	annual	Asteraceae
ragwort, tansy	<i>Senecio jacobaea</i>	2 to 2.85	perennial	Asteraceae
redbud	<i>Cercis Canadensis</i>	2.85	woody perennial	Fabaceae
rush skeletonweed	<i>Chondrilla juncea</i>	2 to 2.85	perennial	Asteraceae
sicklepod ^a	<i>Cassia obtusifolia</i>	2.85	perennial	Fabaceae
smartweed, Pennsylvania	<i>Polygonum pensylvanicum</i>	2 to 2.85	annual	Polygonaceae
sneezeweed, bitter ^a	<i>Helenium amarum</i>	2 to 2.85	annual	Asteraceae
soda apple, tropical (6)	<i>Solanum viarum</i>	2 to 2.85	perennial	Solanaceae
sowthistle, annual	<i>Sonchus oleraceae</i>	2.85	annual	Asteraceae
sowthistle, perennial	<i>Sonchus arvensis</i>	2 to 2.85	perennial	Asteraceae
spanishneedles	<i>Bidens bipinnata</i>	2 to 2.85	annual	Asteraceae
St. Johnswort, common	<i>Hypericum perforatum</i>	2 to 2.85	perennial	Clusiaceae
stiltgrass, Japanese	<i>Microstegium vimineum</i>	2 to 2.85	annual	Poaceae
starthistle, Malta (7) ^{a, b}	<i>Centaurea melitensis</i>	2 to 2.85	annual	Asteraceae
starthistle, purple (7) ^{a, b}	<i>Centaurea calcitrapa</i>	2 to 2.85	biennial	Asteraceae
starthistle, yellow (7) ^{a, b, c}	<i>Centaurea solstitialis</i>	2 to 2.85	annual	Asteraceae
sunflower, common ^a	<i>Helianthus annuus</i>	2 to 2.85	annual	Asteraceae
sweetclover, white	<i>Melilotus albus</i>	2 to 2.85	biennial	Fabaceae
sweetclover, yellow	<i>Melilotus officinalis</i>	2 to 2.85	biennial	Fabaceae
teasel ^s	<i>Dipsacus spp.</i>	2 to 2.85	biennial	Dipsacaceae
thistle, artichoke	<i>Cynara cardunculus</i>	2 to 2.85	perennial	Asteraceae
thistle, blessed milk	<i>Silybum marianum</i>	2 to 2.85	biennial	Asteraceae
thistle, bull (8) ^{a, b}	<i>Cirsium vulgare</i>	2 to 2.85	biennial	Asteraceae
thistle, Canada (9) ^{a, b}	<i>Cirsium arvense</i>	2 to 2.85	perennial	Asteraceae
thistle, woolly distaff	<i>Carthamus lanatus</i>	2 to 2.85	annual	Asteraceae
thistle, Italian ^{a, b}	<i>Carduus pycnocephalus</i>	2.85	annual	Asteraceae
thistle, musk (8) ^{a, b}	<i>Carduus nutans</i>	2 to 2.85	biennial	Asteraceae
thistle, plumeless (8) ^{a, b}	<i>Carduus acanthoides</i>	2 to 2.85	biennial	Asteraceae
thistle, Scotch	<i>Onopordum acanthium</i>	2 to 2.85	biennial	Asteraceae
thistle, Russian (preemergence)	<i>Salsola spp</i>	2.85	annual	Chenopodiaceae
tree of heaven	<i>Ailanthus altissima</i>	2.85	perennial	Simaroubaceae
vetch	<i>Vicia spp.</i>	2 to 2.85	perennial	Fabaceae
willoweed, panicle	<i>Epilobium brachycarpum</i>	2 to 2.85	annual	Onagraceae
wisteria	<i>Wisteria brachybotris</i>	2.85	woody perennial	Fabaceae
wormwood, absinth(10) ^{a, b}	<i>Artemisia absinthium</i>	2.85	perennial	Asteraceae
yarrow, common ^a	<i>Achillea millefolium</i>	2.85	perennial	Asteraceae

^a These plants are indicated to be invasive in the USDA-NRCS, PLANTS Database (<http://plants.usda.gov/index.html>).^b Plants designated as noxious weeds in at least one state (PLANTS Database, USDA-NRCS, <http://plants.usda.gov/index.html>).^c Spot treatment at rates up to 5.7 oz per acre of TerraVue may be particularly effective against dense patches of perennial broadleaf plants.

- (1) **Sulfur cinquefoil or oxeye daisy:** Apply TerraVue at 2 to 2.85 oz per acre to plants in the prebud stage of development.
- (2) **Orange or yellow hawkweeds:** Apply TerraVue at 2 to 2.85 oz per acre to plants in the bolting stage of development.
- (3) **Diffuse, spotted, and squarrose knapweeds:** Apply TerraVue at 2 to 2.85 oz per acre when plants are actively growing with the optimum time of application occurring from rosette to the bolting stages of development or in the fall. Plants will be controlled by mid-summer and fall applications even though plants may not show any changes in form or stature the year of application.
- (4) **Russian knapweed:** Apply TerraVue at 2 to 2.85 oz per acre to plants in the spring and summer at early bud to flowering stages and to dormant plants in the fall.
- (5) **Mullein:** Apply to the rosette stage.
- (6) **Tropical soda apple:** Apply TerraVue at 2 to 2.85 oz per acre at any growth stage, but application by flowering will reduce seed production potential.
- (7) **Malta, purple, and yellow starthistle:** Apply TerraVue at 2 to 2.85 oz per acre to plants at the rosette through bolting growth stages.
- (8) **Bull, musk, and plumeless thistles:** Apply TerraVue at 2 to 2.85 oz per acre in the spring and early summer to rosette or bolting plants or in the fall to seedlings and rosettes. Apply at 2 to 2.85 oz per acre when plants are at the late bolt through early flowering growth stages. 2,4-D at 1 lb ae per acre should be tank-mixed with TerraVue starting at the late bud stages.
- (9) **Canada thistle:** Apply TerraVue at 2 to 2.85 oz per acre in the spring after all plants have fully emerged (some may be budding) until the oldest plants are in full flower stage. Use the higher rate when applying to the flower stage. Applications are also effective in the fall before a killing frost. Use higher rates for older/dense stands or for longer residual control.

- (10) **Absinth wormwood:** Apply 2.85 oz per acre before wormwood is 12 inches tall. When applying by air on CRP, coverage is important and a minimum of 3 GPA is specified. Remove old duff and litter by fire or mowing for best results.
- (11) **Invasive knotweeds:** Japanese, Bohemian, giant knotweeds: Optimum suppression of invasive knotweeds with TerraVue herbicide is obtained when applications are made to plants that are at least 3 to 4 feet tall. Results of field trials conducted in the western U.S. indicate that high volume applications (100 gpa or greater) of TerraVue at 2.85 oz per acre or a spot treatment rate up to 5.7 oz per acre applied in summer will provide good control of invasive knotweeds. In the upper Midwest, mowing in summer followed by fall application of TerraVue (prior to frost) provided the best control. Infestations of invasive knotweed that are mowed should be allowed to regrow to at least 3 feet in height prior to herbicide treatment. Monitoring and follow-up herbicide treatments on regrowth will be necessary to control resprouts and achieve long-term control.
- (12) **Purple loosestrife:** For optimum control apply TerraVue at 2.85 oz per acre plus 1 pt to 1 qt per acre of 2,4-D amine or 1 to 2 qts per acre of Garlon 3A. Spot treatments may also be made by applying TerraVue at 5.7 oz per acre (see Spot Application section of the label) with or without the addition of 2,4-D or Garlon 3A.
- (13) **Fiddleneck:** For optimum control apply TerraVue at 2 to 2.85 oz per acre when the plants are young and before flowering. Use higher rates if the plants are older and larger. In California optimal application timing is November through March.

Table 2: Directions for difficult-to-control species

Target Pest	Directions
black locust ^{a, b} (<i>Robinia pseudoacacia</i>)	Apply TerraVue at 2 to 2.85 oz per acre + Garlon 4 Ultra (EPA Reg. No. 62719-527; triclopyr, butoxyethyl ester) or PastureGard HL (EPA Reg. No. 62719-637; fluroxypyr 1-methylheptyl ester, triclopyr, butoxyethyl ester) at 16 to 32 fl oz per acre after full leaf out.
Canada thistle ^{a, b} (<i>Cirsium arvense</i>)	Apply TerraVue at 2.85 oz per acre after the first buds form in late spring. This timing provides the best compromise between Canada thistle emergence and stage of growth of older plants. Fall to early winter applications of TerraVue on new, healthy green rosettes are highly effective as well.
blackberry spp. ^a (<i>Rubus</i> sp.)	Apply TerraVue at 2 to 2.85 oz per acre + PastureGard HL at 16 to 32 fl oz per acre after fruit has dropped in late summer through first frost as long as leaves are healthy.
buckbrush (<i>Symphoricarpos orbiculatus</i>)	Apply TerraVue at 2 oz per acre + 16 fl oz per acre of 2,4-D (4 lbs ae/gallon) after plants have fully leafed out. During late spring applications increase 2,4-D rates to 32 fl oz per acre.
dogfennel (<i>Eupatorium capillifolium</i>)	Apply TerraVue at 2 oz per acre + PastureGard HL at 8 to 10 fl oz per acre when plants are 6 to 48 inches tall.
hedge (<i>Maclura pomifera</i>)	Apply TerraVue at 2 to 2.85 oz per acre + Garlon 4 Ultra or PastureGard HL at 16 to 32 fl oz per acre after full leaf out.
honey locust (<i>Gleditsia triacanthos</i>)	Apply TerraVue at 2 to 2.85 oz per acre + Garlon 4 Ultra or PastureGard HL at 16 to 32 fl oz per acre after full leaf out.
huisache (<i>Acacia farnesiana</i>)	Suppression Only: Broadcast 2.85 oz per acre of TerraVue herbicide per acre + 32 fl oz per acre of Tordon 22K Specialty Herbicide (EPA Reg. No. 62719-6; picloram-potassium). For best results use higher spray volumes (20 to 25 gallons per acre for ground equipment and 10 to 15 gallons per acre for aerial equipment). Use a nonionic surfactant or oil-water emulsion to help achieve uniform coverage.
Chinese tallow (<i>Triadica pseudoacacia</i>)	Apply TerraVue at 2 to 2.85 oz per acre + Garlon 4 Ultra or PastureGard HL at 16 to 32 fl oz per acre after full leaf out.
goldenrod spp. (<i>Solidago</i> sp.)	Apply TerraVue at 2 oz per acre + 16 fl oz per acre of 2,4-D (4 lbs ae/gallon) once plants are 12 inches tall.
annual marshelder (<i>Iva annua</i>)	Apply TerraVue at 2 to 2.85 oz per acre before annual marshelder is 6 inches tall. If marshelder is greater than 6 inches tall, efficacy will be decreased. To improve efficacy, tank mix 2.85 oz per acre of TerraVue + 4-10 fl oz per acre of dicamba (4 lb ae/gallon) when plants are greater than 6 inches tall.
purple loosestrife (<i>Lythrum salicaria</i>)	For optimum control apply TerraVue at 2.85 oz per acre.
common mullein (<i>Verbascum thapsus</i>)	Ground Broadcast Applications: Apply TerraVue at 2.85 oz per acre + methylated seed oil at 1% v/v. Aerial Broadcast Applications: Apply TerraVue at 2.85 oz per acre + metsulfuron-methyl at 1/3 oz per acre + methylated seed oil at 1% v/v.
multiflora rose ^{a, b} (<i>Rosa multiflora</i>)	Apply TerraVue at 2 to 2.85 oz per acre + Garlon 4 Ultra or PastureGard HL at 16 to 32 fl oz per acre during or after bloom. Plants can be treated into early fall as long as leaves are green and healthy. If plants have been mowed delay treatment for 9 to 12 months to allow sufficient regrowth.
sumac (<i>Rhus</i> sp.)	Apply TerraVue at 2 to 2.85 oz per acre + Garlon 4 Ultra or PastureGard HL at 16 to 32 fl oz per acre after full leaf out.
tree of heaven ^b (<i>Ailanthus altissima</i>)	Apply TerraVue at 2 to 2.85 oz per acre + Garlon 4 Ultra or PastureGard HL at 16 to 32 fl oz per acre after full leaf out.
absinth wormwood	Apply 2.85 oz per acre of TerraVue before wormwood exceeds 12 inches tall. On CRP aerial applications remove old duff by fire or mowing and apply a minimum of 3 GPA for best results
snow on the mountain	Apply TerraVue at 2 oz per acre + 16 fl oz per acre of 2,4-D (4 lbs ae/gallon)

^a These plants are indicated to be invasive in the USDA-NRCS, PLANTS Database (<http://plants.usda.gov/index.html>).

^b Plants designated as noxious weeds in at least one state (PLANTS Database, USDA-NRCS, <http://plants.usda.gov/index.html>).

For Control or Suppression of Medusahead Rye

TerraVue applied broadcast at 2 to 2.85 oz per acre can suppress or control medusahead rye (*Taeniatherum caput-medusae*) and downy brome (*Bromus tectorum*, also called cheatgrass). The key to optimum results is the timing of application. Apply in late summer prior to rains and seed germination in order to provide the best possibility of suppression or control. In general, control or suppression will be poor if any of the seeds have germinated prior to application even if they have not yet emerged through the soil surface. Tank mixes with GF-1280 (EPA Reg. No. 62719-556; glyphosate) at 12 fl oz per acre, where a non-selective herbicide can be used or where

desired grasses are dormant and will not be harmed, will aid in control. Spot treatment restrictions (see Spot Application section) apply for rates above 2.85 oz per acre for broadcast applications.

Woody Plant Control

TerraVue may be applied to control woody plants by any application method listed on the label on any site listed.

TerraVue may be applied alone or in tank-mix combinations with labeled rates of other herbicides provided: (1) the tank mix product is labeled for the timing and method of application for the use site to be treated

and (2) mixing is not prohibited by the label of the registered tank mixed products. Use as directed in the Directions for Use section of the tank-mix partner. Follow instructions under the Mixing Instructions section of this label.

Add TerraVue to tank mixes for improved brush control on species such as alder, aspen, blackberry, boxelder, cherry, coyote brush, conifers, cottonwood, elm, maple, poplar, oak, brooms (Scotch, Spanish, French, Portuguese), gorse, hackberry, Russian and Autumn olive, salt-cedar.

Low or High Volume Foliar Applications

For broad spectrum brush control using a foliar application, TerraVue may be added to tank mixes with the following products or other products labeled for use.

Primary Product Name	EPA Reg. No.	Active Ingredient(s)
GF-1280	62719-556	Glycine, N-(phosphonomethyl)-, compd. with N-methylmethanamine (1:1)
Arsenal Powerline Herbicide	241-431	Imazapyr, isopropylamine salt
DMA 4 Herbicide	62719-3	2,4-D, dimethylamine salt
GF-2654	62719-634	2,4-D, Choline Salt
GF-1529	62719-527	Triclopyr, butoxyethyl ester
Remedy Ultra	62719-552	Triclopyr, butoxyethyl ester
Transline	62719-259	Clopyralid, monoethanolamine salt
Garlon XRT	62719-553	Triclopyr, butoxyethyl ester
Garlon 3A	62719-37	Triclopyr, triethylamine salt
Glypro	62719-324	Glyphosate-isopropylammonium
Tordon 22K Specialty Herbicide	62719-6	Picloram-potassium

Low Volume Basal Bark Applications

To control susceptible woody plants with stems less than 6 inches in basal diameter, apply herbicide mix (see below for rates) with a backpack or knapsack sprayer using low pressure and a solid cone or flat fan nozzle. Spray the basal parts of brush and tree trunks to a height of 12 to 15 inches from the ground in a manner that thoroughly wets the lower stems but not to the point of runoff. The use of a Spraying Systems Y2 nozzle or similar nozzle is recommended, which will narrow the spray pattern to target individual stems. Herbicide concentration should vary with tree diameter, bark thickness, volume used per acre, and susceptibility of species treated. Apply anytime, including the winter months, except when snow or water prevent spraying to the ground line or when stem surfaces are saturated with water.

TerraVue may be used as a low volume basal treatment alone, for sensitive woody species in the Fabaceae family (legumes), or in combination with other products such as GF-1529, Garlon XRT, Remedy Ultra for broader control of other sensitive woody species. Applications should not exceed the maximum use rate per acre for the site.

Mix TerraVue at 0.1 oz per gallon alone, or with GF-1529 or Garlon XRT in a commercially available basal diluent (or other oils or basal diluents as recommended by the manufacturer); the basal oil should be compatible with a water soluble herbicide such as TerraVue. See Table 2 to calculate the amount of TerraVue that can be applied per acre at the various volumes and rates. Make a stable tank mixture for basal bark application by first combining each product with a compatibility agent prior to final mixing in the desired ratio. If using a tank mix, mix the oil-based products such as GF-1529 thoroughly with basal oil and add any other oil-based products before adding the water based products. If the mixture stands for more than 30 minutes, reagitation may be required.

Oil and water based mixtures can separate over time. Long-term storage is not recommended without vigorous agitation prior to use or without a recommended compatibility agent.

Use caution when treating areas adjacent to susceptible and desirable species to avoid root uptake and possible injury when using TerraVue or other soil active herbicides

Chemical Side Trimming

TerraVue may be tank mixed with Garlon 3A, Glypro, GF-1529, GF-1280, or other labeled herbicides for effective chemical limb trimming applications. These applications are designed to control only the portion of the plant which is treated and calibrated equipment is essential. Mix TerraVue at 2.85 oz per acre with the other tank mix partner(s) at the recommended rates. Use lower rates of TerraVue where higher gallons per acre of spray solution are used but not to exceed the 2.85 oz per acre maximum labeled

rate. Direct the spray solution to cover only the portion of the plant to be controlled. Avoid spraying the crown of the tree to allow for side trimming and not complete control of the tree. For conifers in particular, to avoid more injury than intended, it is advisable to apply on less than 1/3 of the tree canopy. Avoid treating under or around desirable tree species such as legumes like locust and mimosa, Douglas-fir, conifers or other sensitive trees unless injury or death of the tree can be tolerated. See Dow AgroSciences literature for guidelines on treating around trees.

Cut Stubble Applications

To prevent re-sprouting of susceptible woody species or germination of susceptible broadleaf plants after mowing or hand cutting on any site listed on label, use TerraVue at 2.85 oz per acre in a tank mix with Tordon 22K Specialty Herbicide at 1 to 2 quarts per acre, GF-1529 at 2 to 2.85 quarts per acre, Garlon 3A at 6 to 8 quarts per acre, 16 fl oz per acre of a 2 lb ai per gallon imazapyr product or equivalent, or with other herbicides labeled for the site. Best results may be obtained with good coverage of the remaining cut stems and when applications are made before or during periods of active root growth. Recommended spray volume is 10 to 50 gallons per acre. Do not apply when the soil is frozen or covered by snow or standing water. For best results, apply soon after cutting, before sprouting of woody species has occurred.

Cut surface

Apply TerraVue in the cut surface applications listed below for control of susceptible tree species such as legumes like albizia, mimosa, locust, etc. Mixtures of TerraVue and Garlon 3A or GF-1529 may be effective on species other than legumes such as elm, maple, oak, and conifers.

Cut surface applications may be used successfully at any season except during periods of heavy sap flow of certain species – for example, maples in the spring.

Cut-Stump Treatment

Apply TerraVue as a 0.1 oz per 1 gallon dilution in water, by spraying or painting all of the exposed cambium layer on the freshly cut surface. The cambium area next to the bark is the most vital area to wet.

With Tree Injector Method

Apply by injecting 0.03 fl oz of 0.1 oz per 1 gallon dilution TerraVue in water through the bark at intervals of 3 to 4 inches between centers of the injector wound. The injections should completely surround the tree at any convenient height. Note: No Worker Protection Standard worker entry restrictions or worker notification requirements apply when this product is injected directly into plants.

With Hack and Squirt Method

Make cuts around the tree trunk at a convenient height with a hatchet or similar equipment so that the cuts overlap slightly and make a continuous circle around the trunk. Spray 0.03 fl oz of 0.1 oz per 1 gallon dilution TerraVue in water into the pocket created between the bark and the inner stem/trunk by each cut.

With Frill or Girdle Method

Make a single girdle through the bark completely around the tree at a convenient height. The frill should allow for the herbicide to remain next to the inner stem and absorb into the plant. Wet the cut surface with 0.1 oz per 1 gallon TerraVue in water.

For use in Hawaii only:

Incision Point Application (IPA) also known as Tree Injection or Hack and Squirt

For control of susceptible tree species such as albizia, and other legumes and susceptible tree species, make cuts around the tree trunk at a convenient height with a machete, hatchet, or similar equipment so that the cuts are about 6 inches apart between centers. Inject 0.03 fl oz of 0.1 oz per 1 gallon dilution TerraVue into the pocket created between the bark and the inner stem/trunk by each cut as soon as possible after cutting. The cambium area next to the bark is the most vital area to wet.

Preemergent Weed Control

Typically, TerraVue is used as a post emergent herbicide but it has preemergent activity on susceptible weeds. Use TerraVue as a preemergence spray prior to weed seed germination. Control will depend upon species susceptibility, application timing, and environmental conditions, such as precipitation, following application. When applied at rates lower than 2.85 oz per acre, TerraVue can provide short-term control of some susceptible weeds, but when applied at 2.85 oz (broadcast) or 5.7 oz (spot treatment), weed control is extended.

Best results for use as a preemergent application for total vegetation control are obtained if TerraVue at 2.85 oz per acre is tank mixed with other herbicides to broaden the weed spectrum and to control grasses. If grasses and broadleaf weeds tolerant to TerraVue are present at the time of application or will germinate on the site, then tank mixtures with other herbicides, such as GF-1280, Glypro, Dimension 2EW (EPA Reg. No. 62719-542; dithiopyr) or Dimension Turf and Ornamental

Herbicide (EPA Reg. No. 62719-429; dithiopyr) (annual grasses), sulfometuron, indaziflam, flumioxazin, diuron, or other herbicides labeled for total vegetation control applications.

Control of Terrestrial Weeds near and up to the Water's Edge

TerraVue can be used to treat terrestrial weeds that extend up to the water's edge. **Do not apply directly to water.** This product must not be used to treat vegetation standing in the water. When controlling terrestrial weed species near and up to the water's edge, take precautions to minimize incidental overspray to the adjacent water. Consult local public water control authorities before applying this product near public waters. Permits may be required to treat such areas. Apply the specified rate, listed in Table 1, of TerraVue as a coarse low-pressure spray as ground broadcast or spot applications. Do not apply aerially for control of weeds growing at or near the water's edge. Spray volume should be sufficient to uniformly cover foliage. Increase the spray volume to ensure thorough and uniform coverage when target vegetation is tall and/or dense. It is also permissible to treat target weeds within dry non-irrigation ditches and seasonally dry transitional areas between upland and lowland sites (such as flood plains, deltas, marshes, prairie potholes or vernal pools), but only at times when those sites are dry and are forecasted or managed by water control systems to remain dry for at least 2 weeks following application.

Non-cropland (Not Grazed or Hayed) and Total Vegetation Control Areas

TerraVue may be applied alone or in tank mix combination to non-cropland areas that are not grazed or hayed or total vegetation control areas such as railroad crossings and railroad beds, roadsides and oil pads that requires removal of total vegetation. Refer to the Plants Controlled section for application rates specified for specific broadleaf weeds.

For non-cropland areas that are not grazed or hayed, apply TerraVue at 2.85 oz per acre per application.

Restrictions:

- Limited to 2 applications per year.
- Minimum of 30 days between applications.
- Do not broadcast apply more than 2.85 oz per acre per application.
- Do not apply more than a total of 5.7 oz. per acre per year.

For total vegetation control, apply TerraVue at 2.85 to 5.7 oz per acre per application.

Restrictions:

- Do not broadcast apply more than 5.7 oz per acre of TerraVue per year.
- The total amount of TerraVue applied broadcast, as a re-treatment, and/or spot treatment must not exceed 5.7 oz per acre per year.

Applications to non-cropland areas are not applicable to treatment of commercial timber or other plants being grown for sale or other commercial use, or for commercial seed production, or for research purposes.

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Revisions:

1. Converted application rates/volumes from metric units to imperial units.