

Willowood

PRONAMIDE 3.3SC

PRONAMIDE

GROUP

3

HERBICIDE

For use on alfalfa, apple, apricot, artichoke (globe), birdsfoot trefoil, blackberry, boysenberry, blueberry, cherry, clover, crown vetch, endive, escarole, grape, head and leaf lettuce, nectarine, peach, pear, plum, prune, radicchio greens, raspberry, rhubarb, sainfoin, and winter peas.

ACTIVE INGREDIENT:

Pronamide: 3,5-dichloro-N-(1,1-dimethyl-2-propynyl) benzamide 35.6%

OTHER INGREDIENTS: 64.4%

TOTAL: 100.0%

Contains 3.3 lbs. of active ingredient per gallon.

**KEEP OUT OF REACH OF CHILDREN
CAUTION**

See inside label booklet for First Aid, Precautionary Statements
and Directions For Use.

EPA Reg. No. 87290-22

Manufactured For:

Willowood, LLC

1887 Whitney Mesa Drive #9740

Henderson, NV 89014-2069

20200918

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.

HOTLINE NUMBERS

Have the product container or label with you when calling a poison control center or doctor or going for treatment. For non-emergency information concerning this product, call the National Pesticides Information Center (NPIC) at **1-800-858-7378** Mon. - Fri. 8:00 am to 12:00 pm Pacific Time. For medical emergencies, call your poison control center at **1-800-222-1222**.

PRECAUTIONARY STATEMENTS HAZARDS TO HUMANS AND DOMESTIC ANIMALS 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:

- Coveralls over short-sleeved shirt and short pants
- Waterproof gloves
- Chemical-resistant footwear plus socks
- Chemical-resistant headgear for overhead exposure
- Chemical-resistant apron when cleaning equipment, mixing, or loading

Unless using Engineering Controls (i.e., closed cab for applicators or closed systems for mixers and loaders), in addition to the above PPE, individuals involved in the following activities must also wear a minimum of a NIOSH-approved particulate filtering facepiece respirator with any N, R or P filter; OR a NIOSH-approved elastomeric particulate respirator with any N, R or P filter; OR a NIOSH-approved powered air purifying respirator with HE filters.

- o Mixers and loaders of products formulated as liquid for use in aerial applications
- o Applicators using groundboom spray to the following high acreage field crop: alfalfa
- o Mixers and loaders of products formulated as liquid for use in chemigation
- o Mixers, loaders, and applicators of products formulated as liquids applied using mechanically-pressurized handguns to ornamentals and nursery stock of ornamentals in nurseries.

Discard clothing and other absorbent materials that have been drenched or heavily contaminated with this product's concentrate. Do not reuse them. 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 STATEMENT

When handlers use closed systems, enclosed cabs, or aircraft 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:

- Remove clothing/PPE immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.
- Remove PPE immediately after handling this product. Wash the outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing.

ENVIRONMENTAL HAZARDS

Do not apply directly to water, or to areas where surface water is present, or to intertidal areas below the mean high water mark. Do not contaminate water when cleaning equipment or disposing of equipment washwaters or rinsate.

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.

AGRICULTURAL USE REQUIREMENTS

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

Do not enter or allow worker entry into treated areas during the restricted entry interval (REI) of 24 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 over short-sleeved shirt and short pants
- Waterproof gloves
- Chemical-resistant footwear plus socks
- Chemical-resistant headgear for overhead exposure

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, forests, nurseries, or greenhouses.

For all uses except those specified below, do not enter or allow others to enter until sprays have dried. When applied to stadium or professional athletic fields, water-in immediately after application or, do not enter or allow others to enter treated area for 24-hours after application. If product is watered-in after treatment, do not enter or allow other persons to enter until area has dried.

PRODUCT INFORMATION

Willowood Pronamide 3.3SC is effective for the control of a wide range of grasses and certain broadleaf weeds. The product is a soil active herbicide with uptake by sensitive weeds occurring through the roots. Before using this herbicide for a specific crop use, study the following product use information that provides important instructions for the safe and effective application of the product.

Use Restrictions: Hand-spray applications of **Willowood Pronamide 3.3SC** may be made only to ornamentals and nursery stock of ornamentals. The use of flaggers is prohibited when making aerial applications.

Chemigation: Do not apply this product through any type of irrigation system except as specified on this label or as specified by other labeling.

SPRAY DRIFT MANAGEMENT (AERIAL APPLICATION)

Avoiding spray drift at the application site is the responsibility of the applicator. The potential for spray drift is determined by the interaction of many equipment- and weather-related factors. The applicator and the grower are responsible for considering all these factors when making decisions.

Do not apply when weather conditions may cause drift to non-target areas. Drift may result in injury to adjacent crops and vegetation.

Applications must be made at the lowest height above the target area that still provides uniform coverage of the target. Making applications at the lowest yet effective height reduces exposure of droplets to wind.

The following drift management requirements must be followed to avoid off-target drift movement from aerial applications to agricultural field crops. These requirements do not apply to forestry applications, public health uses or to applications using dry formulations.

1. The distance of the outer most nozzles on the boom must not exceed 3/4 the length of the wingspan or rotor.
2. Nozzles must always point backward parallel with the air stream and never be pointed downwards more than 45 degrees.

Where certain states have more stringent regulations, they must be observed.

The applicator must be familiar with and take into account the information covered in the following **Aerial Drift Reduction Advisory Information** section.

Aerial Spray Drift Advisory Information

This section is advisory in nature and does not supersede mandatory label requirements.

The most effective way to reduce drift potential is to apply large droplets. The best drift management strategy is to apply the largest droplets that provide sufficient coverage and control. Applying larger droplets reduces drift potential, but will not prevent drift if applications are made improperly, or under unfavorable environmental conditions (see **Wind, Temperature, and Humidity** and **Temperature Inversion** section of this label).

Controlling Droplet Size:

- **Volume** – Use high flow rate nozzles to apply the highest practical spray volume. Nozzles with higher rated flows produce larger droplets.
- **Pressure** – Do not exceed the nozzle manufacturer's specified pressures. Use the lower spray

pressures specified for the nozzle. Higher pressure reduces droplet size and does not improve canopy penetration. When higher flow rates are needed, use higher flow rate nozzles instead of increasing pressure.

- **Number of Nozzles** – Use the minimum number of nozzles that provide uniform coverage.
- **Nozzle Orientation** – Orienting nozzles so that the spray is released backwards, parallel to the airstream will produce larger droplets than other orientations. Significant deflection from the horizontal will reduce droplet size and increase drift potential.
- **Nozzle Type** – Use a nozzle type that is designed for the intended application. With most nozzle types, narrower spray angles produce larger droplets. Consider using low-drift nozzles. Solid stream nozzles oriented straight back produce larger droplets and lower drift than other nozzle types.

Boom Length: For some use patterns, reducing the effective boom length to less than 3/4 of the wingspan or rotor length may further reduce drift without reducing swath width.

Application Height: Do not make applications at a height greater than 10 feet above the top of the largest plants unless a greater height is required for aircraft safety. Making applications at the lowest height that is safe reduces exposure of droplets to evaporation and wind.

Swath Adjustment: When applications are made with a cross-wind, the swath will be displaced downwind. Therefore, on the up and downwind edges of the field, the applicator must compensate for this displacement by adjusting the path of the aircraft upwind. Increase swath adjustment distance with increasing drift potential (higher wind, smaller drops, etc.).

Wind: Drift potential is lowest between wind speeds of 2-10 mph. However, many factors, including droplet size and equipment type determine drift potential at any given speed. Avoid application below 2 mph due to variable wind direction and high inversion potential. **Note:** Local terrain can influence wind patterns. Every applicator must be familiar with local wind patterns and how they affect spray drift.

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

Temperature Inversions: Do not apply during a temperature inversion, because drift potential is high. Temperature inversions restrict vertical air mixing, which causes small suspended droplets to remain in a concentrated cloud. The cloud can move in unpredictable directions due to the light variable winds common during inversions. Temperature inversions are characterized by increasing temperatures with altitude and are common on nights with limited cloud cover and light to no wind. They begin to form as the sun sets and often continue into the morning. The presence of inversion conditions can be indicated by ground fog. However, if fog is not present, the movement of smoke from a ground source or an aircraft smoke generator can also identify inversion conditions. Smoke that layers and moves laterally in a concentrated cloud (under low wind conditions) indicates an inversion, while smoke that moves upwards and rapidly dissipates indicates good vertical air mixing.

Sensitive Areas: Apply this pesticide when the potential for drift to adjacent sensitive areas (e.g., residential areas, bodies of water, known habitat for threatened or endangered species, non-target crops) is minimal (e.g., when wind is blowing away from the sensitive areas).

RESISTANCE MANAGEMENT

For resistance management, **Willowood Pronamide 3.3SC** is a Group 3 herbicide. Any weed population may contain or develop plants naturally resistant to **Willowood Pronamide 3.3SC** and other Group 3 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 **Willowood Pronamide 3.3SC** or other Group 3 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.
- Fields should be scouted prior to application to identify the weed species present and their growth stage to determine if the intended application will be effective. Fields should be scouted after application to verify that the treatment was effective.
- 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.
- Suspected herbicide-resistant weeds may be identified by these indicators:
 - o Failure to control a weed species normally controlled by the herbicide at the dose applied, especially if control is achieved on adjacent weeds;
 - o A spreading patch of non-controlled plants of a particular weed species; and
 - o 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 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.

Report any incidence of non-performance of this product against a particular weed species to your Willowood, LLC representative. If resistance is suspected, treat weed escapes with an herbicide having a different mechanism of action and/or use non-chemical means to remove escapes, as practical, with the goal of preventing further seed production.

WEED SPECTRUM

Willowood Pronamide 3.3SC may be used for both preemergence and early postemergence control of winter annual and perennial grasses and chickweed and for preemergence control only of certain other broadleaf weeds and certain other grasses listed.

Weeds Controlled Both Preemergence and Early Postemergence

barley, foxtail	<i>Hordeum jubatum</i>
barley, volunteer	<i>Hordeum vulgare</i>
bentgrass	<i>Agrostis species</i>
bluegrass, annual	<i>Poa annua</i>
bluegrass, bulbous	<i>Poa bulbosa</i>
bluegrass, Kentucky	<i>Poa pratensis</i>
brome, downy (cheatgrass)	<i>Bromus tectorum</i>
chickweed, common	<i>Stellaria media</i>
chickweed, mouse-ear	<i>Cerastium vulgatum</i>
fescue, tall	<i>Festuca arundinacea</i>
goatgrass, jointed	<i>Aegilops cylindrical</i>
oat, volunteer	<i>Avena sativa</i>
oat, wild	<i>Avena fatua</i>
orchardgrass	<i>Dactylis glomerata</i>
quackgrass	<i>Agropyron repens</i>
rye, volunteer	<i>Secale cereal</i>
ryegrass, Italian	<i>Lolium multiflorum</i>
ryegrass, perennial	<i>Lolium perenne</i>
velvetgrass	<i>Holcus lanatus</i>
wheat, volunteer	<i>Triticum aestivum</i>

Weeds Controlled Only Preemergence

barnyardgrass	<i>Echinochloa crus-galli</i>
canarygrass	<i>Phalaris canariensis</i>
carpetweed	<i>Mollugo verticillata</i>
crabgrass, large	<i>Digitaria sanguinalis</i>
dodder, field	<i>Cuscuta campestris</i>
foxtail, yellow	<i>Setaria lutescens</i>
goosefoot, nettleleaf	<i>Chenopodium murale</i>
goosegrass	<i>Eleusine indica</i>
henbit	<i>Lamium amplexicaule</i>
knotweed, prostrate	<i>Polygonum aviculare</i>
lambsquarters, common	<i>Chenopodium album</i>
lovegrass	<i>Eragrostis diffusa</i>
mallow, little (cheeseweed)	<i>Malva parviflora</i>
morningglory, annual	<i>Ipomoea purpurea</i>
mustard, wild	<i>Brassica kaber</i>
nettle, burning	<i>Urtica urens</i>
nightshade, black	<i>Solanum, nigrum</i>

WEED SPECTRUM (continued)

Weeds Controlled Only Preemergence

nightshade, hairy	<i>Solanum sarrachoides</i>
panicum, fall	<i>Panicum dichotomiflorum</i>
purslane, common	<i>Portulaca oleracea</i>
radish, wild	<i>Raphanus sativus</i>
rocket, London	<i>Sisymbrium irio</i>
shepherd's purse	<i>Capsella bursa-pastoris</i>
smartweed, pale	<i>Polygonum lapathifolium</i>
sorrel, red (from seed)	<i>Rumex acetosella</i>
tomato, volunteer	<i>Solanum esculentum</i>

Note: The weed species controlled by **Willowood Pronamide 3.3SC** are dependent on the rate used, specific crop culture involved, and the associated conditions of temperature, soil type and moisture availability. Refer to specific crop use directions for weed species controlled.

DOSAGE

The rate of **Willowood Pronamide 3.3SC** required will vary depending on the crop culture involved and weed species to be controlled. See specific crop use directions for all dosage instructions. All dosage instructions listed in this label are in terms of pints of product or pounds of active ingredient per broadcast acre. For banded application, reduce the amount of **Willowood Pronamide 3.3SC** used per square acre according to the following formula:

$$\frac{\text{Band Width (in inches)}}{\text{Row Width (in inches)}} \times \text{Rate per Acre Broadcast} = \text{Amount Needed per Acre for Band Application}$$

TIMING AND APPLICATION

Unless specific directions are given under the crop to be treated, apply **Willowood Pronamide 3.3SC** in the fall or early winter, when temperatures do not exceed 55°F, **but prior to freeze-up**. Best weed control results occur when **Willowood Pronamide 3.3SC** is applied preemergence to the weeds and when application is followed by rainfall or irrigation to move the product into the root zone of the germinating weeds.

Mix **Willowood Pronamide 3.3SC** thoroughly in clean water at the required concentration and apply uniformly as a spray. For ground application, use a conventional low-pressure herbicide sprayer equipped with flat fan nozzles spaced and calibrated to uniformly deliver 20 to 50 gallons of spray per acre. For aerial applications, apply in a coarse droplet spray at 5 to 10 gallons per acre. Accurately calibrate spray equipment prior to each use.

COMPATIBILITY WITH OTHER PESTICIDES

Willowood Pronamide 3.3SC is compatible with most commonly used agricultural pesticides, crop oil concentrate and adjuvants. When preparing tank mixes, consult spray compatibility charts or State Cooperative Extension Service Specialists prior to actual use. It is the pesticide user's responsibility to ensure that all products in the listed mixtures are registered for the intended use(s). Users must follow the most restrictive directions for use and precautionary statements of each product in the tank mixture.

EFFECT OF SOIL TYPE, MOISTURE AND TEMPERATURE

Willowood Pronamide 3.3SC is most active in coarse to medium texture soils of low organic matter and relatively inactive in peat or muck soils or mineral soils high in organic matter content at rates specified in this label. Herbicidal activity is best in soils containing less than 4 percent organic matter. Use in soils with higher organic matter may result in inconsistent or incomplete weed control.

The herbicidal activity of **Willowood Pronamide 3.3SC** is mainly through root absorption in sensitive weed species. Rain, melting snow or irrigation is **essential** following treatment to move **Willowood Pronamide 3.3SC** into the root zone of germinating weeds.

Under field conditions, **Willowood Pronamide 3.3SC** will remain relatively stable with little loss of herbicidal activity when soil temperatures are less than 55°F. As soil temperatures increase, degradation of the active ingredient takes place. **Willowood Pronamide 3.3SC** may degrade rather quickly if left exposed on the soil surface in warm weather. If **Willowood Pronamide 3.3SC** is applied when air temperature exceeds 85°F, the treatment must be soil incorporated to a shallow depth (top two to three inches) or watered into the soil as soon as possible.

CULTURAL CONSIDERATIONS

For best results, apply **Willowood Pronamide 3.3SC** to a trash-free soil surface. Clean cultivation before application is preferable, but not necessary. To obtain optimum weed control in areas not clean cultivated, the area to be treated must be free of surface litter (dead or decaying crop and weed debris, mowing clippings, etc.). Trash-free areas create ideal conditions for rapid movement of **Willowood Pronamide 3.3SC** into the weed root zone following rain or irrigation.

ROTATION CROP PLANTING INFORMATION

Follow the directions given below when rotation crops will be planted to areas previously treated with **Willowood Pronamide 3.3SC**.

Waiting Period in Days Before Planting the Crops Indicated (1):

Amount of Willowood Pronamide 3.3SC Applied Per Acre	Root and Tuber Vegetables	Brassica Leafy Vegetables, Cucurbits, Fruiting Vegetables, and Bub Vegetables	Leafy Vegetables (except Brassica Vegetables) and Legumes	Cereal Grains	All Other Rotated Crops (1)
Up to 5.0 pints (2.0 lbs. ai/acre)	90	45	30	180	365

(1) There are no plant back restrictions for **Willowood Pronamide 3.3SC** when rotating to artichokes, grapes, berry fruits, pome fruits, or stone fruits.

Whether **Willowood Pronamide 3.3SC** is bed-topped, banded, or broadcast, the beds must be knocked down and the field cross-disked before rotation crops other than artichokes, head or leaf lettuce, endive, radicchio or escarole are planted.

Where the **Willowood Pronamide 3.3SC** treatment is to be followed by a rotation crop within 180 days of application, bed-topped or banded applications are suggested.

ARTICHOKE (GLOBE)

Arizona and California

Use Information

Willowood Pronamide 3.3SC is a selective herbicide for the control of susceptible weeds in either established (ratoon) or transplanted globe artichokes.

Weeds Controlled

Willowood Pronamide 3.3SC is effective at 5.0 pints of product (2 lbs. active ingredient) per treated acre for the preemergence control of the following weeds:

barley, volunteer
bluegrass, annual
chickweed, common
chickweed, mouse-ear
foxtail, yellow
goosefoot, nettleleaf
henbit
knotweed, prostrate
mallow, little (cheeseweed)
mustard wild
nettle, burning
nightshade, hairy
oat, volunteer
oat, wild
ryegrass, Italian
wheat, volunteer

SPECIMEN

**Willowood Pronamide 3.3SC Rate
(Per Broadcast Acre)¹**

Crop	Weeds	Dependable Rainfall or Overhead Irrigation (pts./Acre)	Less Dependable Rainfall or Furrow Irrigation	Comments
globe artichokes (established ratoon)	Susceptible annual grasses, volunteer grains and broadleaf weeds	5.0	Do not apply	sandy soils, sandy loams and silt loams
		5.0	Do not apply	silt, silty clay loams, clay loams and clay soils
globe artichokes (newly transplanted crowns)	Susceptible annual grasses, volunteer grains and broadleaf weeds	5.0	Do not apply	all soil types except peat and muck soils

¹ Dosage instructions listed on this label are in terms of pints **Willowood Pronamide 3.3SC** per acre broadcast application. For banded treatments down artichoke rows or between rows, reduce the amount of **Willowood Pronamide 3.3SC** used per acre according to the following formula:

$$\frac{\text{Band Width (in inches)}}{\text{Row Width (in inches)}} \times \text{Rate per Acre Broadcast} = \text{Amount Needed per Acre for Band Application}$$

Dosage and Timing

Established Ratoon Artichokes

Apply **Willowood Pronamide 3.3SC** in a single postemergence application to the crop after tillage operations are completed and shoot re-growth of the artichokes has occurred. Apply **Willowood Pronamide 3.3SC** preemergence to the weeds and before new artichoke leaves are greater than 14 to 16 inches long. Apply **Willowood Pronamide 3.3SC** in a banded treatment over the crop row at the rate of 5.0 to 9.5 pints of product per broadcast acre (see dosage rate for soil type in chart). A second application of **Willowood Pronamide 3.3SC** at the same rate may be applied 60 days or more prior to harvest in a banded treatment directed to the untreated soil surface between the artichoke rows after the ditching operation is completed later in the season.

Transplanted Artichoke Crowns

Apply **Willowood Pronamide 3.3SC** in a single application after transplanting the crowns but before new shoots have developed 3 to 4 new leaves. Apply **Willowood Pronamide 3.3SC** preemergence to the weeds and banded over the crop row at the rate of 5.0 pints of product per broadcast acre. Do not use higher rates of **Willowood Pronamide 3.3SC** than 5.0 pints per acre in one season. A second application of **Willowood Pronamide 3.3SC** at the same rate may be applied 60 days or more prior to harvest in a banded treatment directed to the untreated soil surface between the artichoke rows after the ditching operation is completed later in the season.

Application

Willowood Pronamide 3.3SC may be applied by aircraft or ground sprayer for preemergence control of susceptible grasses and broadleaf weeds in established ratoon artichokes or transplanted artichoke crowns.

Aerial: Mix the specified amount of **Willowood Pronamide 3.3SC** in a minimum of 10 gallons of water per acre for aerial application. Avoid drift to all other crops and non-target areas.

Ground: Mix the specified amount of **Willowood Pronamide 3.3SC** in clean water and apply uniformly with a ground sprayer in 20 to 50 gallons of water per acre. Reduce dosage and volume accordingly for banded treatments. Use a standard low pressure herbicide sprayer equipped with flat fan nozzles that give uniform spray distribution.

Moisture and Irrigation Requirements

Moisture is necessary to activate **Willowood Pronamide 3.3SC** in the soil and move it into the root zone of germinating weeds. In artichoke culture natural rainfall or supplementary overhead irrigation within 1 to 3 days after the application of **Willowood Pronamide 3.3SC** is essential for effective weed control. For best results use overhead sprinkler irrigation equipment to irrigate the field with 1 to 2 inches of water after application of **Willowood Pronamide 3.3SC**.

Effect of Soil Type

Do not apply **Willowood Pronamide 3.3SC** to highly organic or muck soils because herbicidal activity is lowered significantly in these soils. Follow dosage rates suggested in the dosage instruction chart according to the soil type for established and transplanted artichokes.

Rotation Crops

Artichokes are generally long-term perennial crops. In the event that artichokes are discontinued and a rotational crop will be planted within one year where **Willowood Pronamide 3.3SC** was applied at the rate of 5.0 pints of product per acre, follow the rotational crop requirements specified in the **PRODUCT INFORMATION** section of this label under **ROTATIONAL CROP PLANTING INFORMATION**.

Artichoke – Specific Use Restrictions

- Do not apply more than 2 lbs./acre active ingredient (5.0 pints/acre of **Willowood Pronamide 3.3SC**) to established or newly transplanted artichokes or make more than one “in-row” application per season.
- Do not harvest artichokes within 60 days of final application.
- Do not make more than one application to the artichoke row per season. Do not make more than one application to the untreated soil between the rows per season.

BLACKBERRY/BOYSENBERRY/RASPBERRY

(Idaho, Oregon, and Washington Only)

Use Information

Willowood Pronamide 3.3SC is a selective herbicide for fall and winter applications to established blackberries, boysenberries, and raspberries for both preemergence and postemergence control of certain winter annual and perennial grasses.

Dosage

Willowood Pronamide 3.3SC may be applied at the rate of 2.5 to 5.0 pints of product (1 to 2 lbs. active ingredient) per acre broadcast application. The rate will depend on the weed species present and the soil texture of the site being treated. Follow the weed control instructions listed in the chart below.

Pints of Willowood Pronamide 3.3SC Per Broadcast Acre¹		
Weeds Controlled	Dependable Rainfall or Overhead Irrigation²	Comments
bluegrass, annual	2.5-5.0	Use low rates on light to medium soils and high rates on heavy soils.
quackgrass	5.0	
ryegrass, perennial	5.0	

¹ Dosage rates specified are in pints of **Willowood Pronamide 3.3SC** per acre broadcast application. Reduce rates accordingly for banded applications.

² For effective weed control, rainfall or overhead irrigation is essential following the application of **Willowood Pronamide 3.3SC**.

Crop Sensitivity

Apply to established cane fruits to avoid injury. Newly transplanted blackberries, boysenberries and raspberries must be well rooted and transplanted for at least 3 months prior to the application of **Willowood Pronamide 3.3SC**.

Timing and Application

Apply **Willowood Pronamide 3.3SC** only during the fall or winter months. For optimum results, apply **Willowood Pronamide 3.3SC** during November or December. Do not make applications when the ground is frozen. Mix the specified amount of **Willowood Pronamide 3.3SC** in clean water and apply uniformly with a low pressure ground sprayer in 20 to 50 gallons of water per acre.

Blackberry/Boysenberry/Raspberry – Specific Use Restrictions

- Do not apply more than 2 lbs./acre active ingredient (5.0 pints/acre of **Willowood Pronamide 3.3SC**) or make more than one application of **Willowood Pronamide 3.3SC** per season.

BLUEBERRY

Use Information

Willowood Pronamide 3.3SC is a selective herbicide for fall and winter applications to established blueberries for both preemergence and postemergence control of winter annual and perennial grasses and chickweed and preemergence control of certain broadleaf weeds.

Dosage Instructions

Willowood Pronamide 3.3SC may be applied at the rate of 2.5 to 5.0 pints of product (1 to 2 lbs. active ingredient) per acre broadcast application. The rate will depend on the weed species present. Follow the weed control rates specified in the chart below:

Weeds Controlled	Pints of Willowood Pronamide 3.3SC Per Acre ¹ Dependable Rainfall or Overhead Irrigation ²
bluegrass, annual brome, downy (cheatgrass) chickweed oat, wild sorrel, red (from seed)	2.5
bentgrass bluegrass, Kentucky fescue, tall orchardgrass quackgrass ryegrass, perennial velvetgrass	5.0

¹ Dosage rates specified are in pints of **Willowood Pronamide 3.3SC** per acre broadcast application. Reduce rates accordingly for banded applications.

² For effective weed control, rainfall or overhead irrigation is essential following application of **Willowood Pronamide 3.3SC**.

Crop Tolerance

Apply to established blueberry plants to avoid injury. Do not apply **Willowood Pronamide 3.3SC** to newly transplanted blueberries until roots are well established.

Timing and Application

Apply **Willowood Pronamide 3.3SC** in a single application during the fall or early winter months, but prior to soil freeze-up and snow cover. Optimum herbicidal activity occurs when applications are made under cool temperature conditions (55°F or less) and are followed by rainfall or overhead irrigation.

Mix the specified amount of **Willowood Pronamide 3.3SC** in clean water and apply uniformly with a low pressure ground sprayer in 20 to 50 gallons of water per acre.

Blueberry – Specific Use Restrictions

- Do not apply more than 2 lbs./acre active ingredient (5.0 pints/acre **Willowood Pronamide 3.3SC**) or make more than one application of **Willowood Pronamide 3.3SC** per year.

ALFALFA, CLOVER, BIRDSFOOT TREFOIL, CROWN VETCH, AND SAINFOIN GROWN FOR FORAGE AND SEED

Use Information

Willowood Pronamide 3.3SC is a selective herbicide for fall or winter applications to alfalfa, clover, birdsfoot trefoil, crown vetch, and sainfoin for both preemergence and postemergence control of susceptible winter annual and perennial grasses and for preemergence control of certain broadleaf weeds.

Dosage

Willowood Pronamide 3.3SC may be applied at the rate of 1.25 to 5 pints of product (0.5 to 2 lbs. active ingredient) per broadcast acre application. The required rate will depend on the weed species present as well as the type of irrigation used or the dependability of rainfall following application. The effective rate will be higher in low rainfall areas or where furrow irrigation is used than in areas of dependable rainfall or where overhead irrigation is practiced. Follow the weed control instructions given in the chart below for fall or winter applications of **Willowood Pronamide 3.3SC**:

Pints of Willowood Pronamide 3.3SC Per Broadcast Acre		
Weeds Controlled	Dependable Rainfall Or Overhead Irrigation	Low Rainfall Or Furrow Irrigation
Apply preemergence or postemergence to these weeds: barley, foxtail bluegrass, annual brome, downy (cheatgrass) chickweed grain, volunteer oat, wild ryegrass, Italian	1.25-2.0	2.0-2.5
bluegrass, Kentucky orchardgrass ryegrass, perennial	2.0-2.5	2.5-3.5
quackgrass	2.5-3.5	3.5-5.0
Apply preemergence only to these weeds: sorrel, red (from seed)	2.0-2.5	2.5-3.5
mustard, wild radish, wild rocket, London shepherd's purse	3.5	5.0

Note: For control of spring germinating cheatgrass and dodder, refer to specific instructions under **SPRING USE DIRECTIONS FOR ESTABLISHED ALFALFA**.

Timing and Application

Apply **Willowood Pronamide 3.3SC** during the fall or winter months. Optimum herbicidal activity occurs when applications are made under cool temperature conditions (**55°F to 60°F**) and are followed by rainfall or overhead irrigation. Applications must be made **before soil freeze-up**.

Applications may be made postemergence to established, actively growing or dormant forage legumes or to new plantings after the legume has reached the trifoliate leaf stage. In established forage legume stands, applications must be made after the last cutting when the weather and soil temperatures are cool. In fall seeded forage legumes, applications must be made after legumes have reached the trifoliate leaf stage. In spring-seeded forage legumes, applications of **Willowood Pronamide 3.3SC** must be made the following fall or early winter to control winter annual and perennial grasses. Do not use **Willowood Pronamide 3.3SC** as a preplant or preemergence treatment or before the trifoliate leaf stage of the legume has developed in new plantings as injury to the legume stand may result. Remove or disperse trash, crop residues and ashes before treatment.

Mix the specified amount of **Willowood Pronamide 3.3SC** in clean water and apply uniformly with a ground sprayer at 20 to 50 gallons per acre. Use a conventional herbicide sprayer equipped with flat fan nozzles at 40 to 60 psi.

Rotation Crops

Where rotation crops are to follow within one year of the **Willowood Pronamide 3.3SC** treatment to alfalfa, clover, birdsfoot trefoil, crown vetch or sainfoin, follow the directions given in the **PRODUCT INFORMATION** section of this label under **ROTATION CROP PLANTING INFORMATION**.

Alfalfa, Clover, Birdsfoot Trefoil, Crown Vetch, and Sainfoin – Specific Use Restrictions

- Do not use more than 2 lbs./acre active ingredient (5 pints/acre of **Willowood Pronamide 3.3SC**) per year.
- Do not harvest alfalfa seed within 50 days after application.
- Do not graze or harvest for forage or dehydration within the following intervals after application:

Alfalfa – below 3.5 pints/acre Willowood Pronamide 3.3SC (west of Mississippi River)	25 days
Alfalfa – 3.5-5 pints/acre Willowood Pronamide 3.3SC (west of Mississippi River)	45 days
Clover, birdsfoot trefoil, crown vetch, sainfoin (entire U.S.) and alfalfa – Up to 5 pints/acre Willowood Pronamide 3.3SC (East of Mississippi River)	120 days

SPRING USE DIRECTIONS FOR ESTABLISHED ALFALFA DODDER CONTROL IN ALFALFA SEED CROPS

Only in California, Colorado, Idaho, Nevada, Oregon, Utah, and Washington

Use Information

For effective control **Willowood Pronamide 3.3SC** must be moved into the soil either by rainfall or irrigation before the germination of dodder. Preferably, irrigation must be made within 1 to 3 days following the **Willowood Pronamide 3.3SC** application, but can be delayed up to 2 weeks if necessary provided that irrigations precede dodder germination. If irrigation of the field treated with **Willowood Pronamide 3.3SC** must be delayed, a light mechanical incorporation (maximum 1-inch depth) must follow the **Willowood Pronamide 3.3SC** application and the field irrigated within 2 weeks.

When using flood type or overhead sprinkler irrigation systems the amount of irrigation following the **Willowood Pronamide 3.3SC** application must not exceed one inch of water. Excess irrigation following the **Willowood Pronamide 3.3SC** application and prior to germination of dodder may decrease the effectiveness of **Willowood Pronamide 3.3SC**.

Dosage and Timing

For effective control, **Willowood Pronamide 3.3SC** must be applied before dodder germinates. Follow the directions given below depending on method of irrigation used.

Furrow Irrigation: Apply **Willowood Pronamide 3.3SC** at the rate of 3.5 to 5.0 pints of product (1.5 to 2 lbs. active ingredient) per acre. Incorporate lightly at time of application and irrigate within seven days.

Flood Irrigation: Apply **Willowood Pronamide 3.3SC** at the rate of 3.5 pints of product (1.5 lbs. active ingredient) per acre. Flood field with 0.5 to 1.0 inch of water within 1 to 3 days after application.

Overhead Sprinkler Irrigation: Use same directions as given above for flood irrigation. Excessive amounts of irrigation water following **Willowood Pronamide 3.3SC** application may adversely affect the herbicidal activity.

Cheatgrass Control in Established Alfalfa (Spring Applications)

Dosage and Timing

Spring application of **Willowood Pronamide 3.3SC** will control cheatgrass if application is made when cheatgrass has recently germinated or is expected to germinate. Apply **Willowood Pronamide 3.3SC** as a broadcast application at the rate of 2.0 to 2.5 pints of product (0.8 to 1 lb. active ingredient) per acre.

HEAD AND LEAF LETTUCE/ENDIVE/ESCAROLE/RADICCHIO GREENS INCLUDING SINGLE APPLICATION AND SPLIT APPLICATION AND CHEMIGATION

Use Information

Willowood Pronamide 3.3SC is a selective herbicide for the control of certain annual grasses and broadleaf weeds in direct seeded or transplanted head or leaf lettuce, endive, escarole, and radicchio greens.

Weeds Controlled

Willowood Pronamide 3.3SC is for the preemergence control of the following weeds:

Grasses

barley, foxtail
barley, volunteer
barnyardgrass
bluegrass, annual
brome, downy (cheatgrass)
canarygrass
crabgrass
foxtail, yellow
goosegrass
lovegrass
oats, volunteer
panicum, fall
ryegrass, Italian
rye, volunteer
wheat, volunteer

Broadleaf Weeds

carpetweed
chickweed, common
goosefoot, nettleleaf
henbit
knotweed
lambsquarters, common
morningglory, annual
mustard, wild
nettle, burning
nightshade, black
nightshade, hairy
purslane, common
rocket, London
shepherd's purse
smartweed, pale
tomato, volunteer

Dosage

For head lettuce, endive, escarole, and radicchio greens, **Willowood Pronamide 3.3SC** may be applied at the rate of 2.5 to 5.0 pints of product (1 to 2 lbs. active ingredient) per acre broadcast application. For leaf lettuce, **Willowood Pronamide 3.3SC** may be applied at the rate of 1.25 to 5.0 pints of product (1/2 to 2 lbs. active ingredient) per acre broadcast application. The dosage rate required is dependent on soil texture, target weeds, duration of control expected and method of irrigation. Lower rates may result in shorter duration of weed control or less efficacy on hard to control weeds. At rates specified on this label, **Willowood Pronamide 3.3SC** may not be as effective when applied for weed control on highly organic (peat and muck) soils.

For head lettuce, endive, escarole, and radicchio greens, follow the dosage instructions listed in chart below:

Pints of Willowood Pronamide 3.3SC Per Broadcast Acre¹			
Weeds	Dependable Rainfall Or Overhead Irrigation	Less Dependable Rainfall or Furrow Irrigation	Soil Texture Group²
susceptible annual grasses	2.5-3.5 (surface application)	3.5-5.0 (soil incorporation)	Coarse and medium textured soils
broadleaf weeds	3.5-5.0 (surface application)	5.0 (soil incorporation)	Fine textured soils

¹ Reduce dosage rate accordingly for banded applications.

² Soil Texture Group:

Coarse: sand, loamy sand, sandy loam

Medium: loam, silt loam, silt, sandy clay loam

Fine: silty clay loam, clay loam, sandy clay, silty clay, clay

For leaf lettuce, follow the dosage instructions listed in chart below:

Pints of Willowood Pronamide 3.3SC Per Broadcast Acre¹			
Weeds	Dependable Rainfall Or Overhead Irrigation	Less Dependable Rainfall or Furrow Irrigation	Soil Texture Group²
susceptible annual grasses	1.25-3.5 (surface application)	3.5-5.0 (soil incorporation)	Coarse and medium textured soils
broadleaf weeds	3.5-5.0 (surface application)	5.0 (soil incorporation)	Fine textured soils

¹ Reduce dosage rate accordingly for banded applications.

² Soil Texture Group:

Coarse: sand, loamy sand, sandy loam

Medium: loam, silt loam, silt, sandy clay loam

Fine: silty clay loam, clay loam, sandy clay, silty clay, clay

Crop Tolerance

Most varieties of head or leaf lettuce are highly tolerant of the specified rates of **Willowood Pronamide 3.3SC**. Do not use more than 3.5 pints (1.5 lbs. active ingredient) per acre on val temp, grande verde and prima verde varieties of crisp head lettuce, or on endive, escarole, and radicchio greens.

Timing and Application

Willowood Pronamide 3.3SC can be applied either preplant, postplant or postemergence to head or leaf lettuce, endive, escarole, or radicchio greens in banded, bed-topped or broadcast applications. Most applications will be made preemergence to the crop just before or after planting and preemergence to the weeds. Applications can be made before or after thinning of head or leaf lettuce but must be made prior to weed emergence. For split application, see directions below.

Mix the specified amount of **Willowood Pronamide 3.3SC** in clean water and apply uniformly with a ground sprayer in 20 to 50 gallons of water per treated acre. Reduce dosage and volume accordingly for banded treatments. Use a standard low pressure sprayer equipped with flat fan nozzles that provide uniform spray distribution.

Split Application:

Willowood Pronamide 3.3SC application can be split so that part of the maximum application rate of the product can be initially applied to head or leaf lettuce, endive, escarole or radicchio greens, and the balance of the maximum application rate can be applied up to 10 days later. Total amount of **Willowood Pronamide 3.3SC** applied must not exceed the maximum rates indicated on this label, up to 5 pints of product (2 lb. active ingredient) per acre per crop. For leaf lettuce, total amount of **Willowood Pronamide 3.3SC** applied must not exceed the maximum rates indicated on this label, up to 5 pints per acre of product (2 lbs./acre active ingredient) per crop, or more than 10 pints of product (4 lbs. active ingredient) per acre per year. The value of split applications and optimal timing for the second application will vary depending on season, weed species present and environmental conditions.

Application Moisture Requirements

Willowood Pronamide 3.3SC acts mainly through root absorption, therefore it is necessary to move **Willowood Pronamide 3.3SC** into the root zone of germinating weeds to provide effective control. This can be accomplished by overhead sprinkler irrigation, by rainfall or by shallow mechanical incorporation.

Sprinkler Irrigation

Willowood Pronamide 3.3SC can be applied to the soil surface without mechanical incorporation after planting or transplanting if overhead irrigation is used. An initial irrigation of 1 to 2 inches must promptly follow the application of **Willowood Pronamide 3.3SC**, especially in hot weather.

Applications Dependent on Natural Rainfall

In areas of dependable natural rainfall, **Willowood Pronamide 3.3SC** can be applied as a surface treatment preemergence to the weeds. Applications to direct seeded or transplanted head or leaf lettuce, endive, escarole or radicchio greens are most successful when followed by 1/2 to 1 inch of rainfall within two to three days after application.

Furrow Irrigation – Mechanical Incorporation

Where rainfall is not dependable or supplementary overhead irrigation is not used, shallow preplant incorporation is required. PTO-driven incorporators or rolling cultivators that thoroughly mix **Willowood Pronamide 3.3SC** into the top 2 inches of soil are suggested.

Incorporation must be simultaneous or immediately after application of **Willowood Pronamide 3.3SC**, especially in hot weather. Irrigation must be started as soon as possible.

Where furrow irrigation is used, spray application and mechanical incorporation must be made after beds have been formed. **Willowood Pronamide 3.3SC** will not be as effective if disked in prior to bed shaping. Hoeing, thinning or shallow cultivation of soil treated with **Willowood Pronamide 3.3SC** will not destroy its herbicidal activity.

Temperature

Willowood Pronamide 3.3SC is not highly volatile, but it may degrade rather quickly if left exposed on the soil surface in warm weather. If applied when air temperatures exceed 85°F it must be shallow incorporated or watered into the soil as soon as possible, preferably within 1 or 2 days.

Rotation Crops

Follow the directions given in the **PRODUCT INFORMATION** section of this label under **ROTATION CROP PLANTING INFORMATION**.

Head or Leaf Lettuce/Endive/Escarole/Radicchio Greens – Specific Use Restrictions

- Do not apply **Willowood Pronamide 3.3SC** to head lettuce, endive, escarole, radicchio varieties that will be harvested less than 55 days after treatment.
- For use on leaf lettuce, follow the table below for preharvest intervals based on the appropriate use rate.

Use Rate	PHI
Up to 1.25 pts./A (0.5 lb. ai/A)	25 days
Up to 1.8 pts./A (0.75 lb. ai/A)	35 days
Up to 3.75 pts./A (1.5 lbs. ai/A)	45 days
Up to 5.0 pts./A (2.0 lbs. ai/A)	55 days

- Do not apply more than one application of **Willowood Pronamide 3.3SC** to each crop of head or leaf lettuce, endive, escarole, or radicchio greens, or more than twice if split application is made.
- Do not apply more than 5.0 pints of **Willowood Pronamide 3.3SC** (2 lbs. active ingredient) per acre per crop.
- For leaf lettuce, do not apply more than 2 lbs./active ingredient (5 pints/acre of **Willowood Pronamide 3.3SC**) per crop, or more than 4 lbs. active ingredient (10 pints/acre of **Willowood Pronamide 3.3SC**) per acre per year.

Aerial Application (For Use in Arizona and California)

Willowood Pronamide 3.3SC may be applied by aircraft for preemergence control of susceptible grasses and broadleaf weeds in head or leaf lettuce. **Willowood Pronamide 3.3SC** must be applied at the dosage rate of 2.5 to 5.0 pints of product (1.0 to 2.0 pounds active ingredient) per treated acre depending on soil type (refer to comments under Dosage chart above). Mix the specified amount of this product in 10 to 20 gallons of water per acre for aerial application. For aerial applications of **Willowood Pronamide 3.3SC** on head or leaf lettuce, consult the label carefully for plantback information. Avoid drift to all other crops and non-target areas.

**Chemigation Application
(For Use in Arizona and California)**

Apply **Willowood Pronamide 3.3SC** by chemigation for weed control in direct seeded or transplanted head or leaf lettuce, endive, escarole, or radicchio greens but must be applied prior to weed emergence. Application may be made preemergence to head or leaf lettuce, endive, escarole, or radicchio greens or postemergence to head or leaf lettuce. **Do not apply postemergence to endive, escarole, or radicchio greens.**

Application Rate: Apply **Willowood Pronamide 3.3SC** at the rate of 1.25 to 2.5 pints per acre (0.5 to 1 lb. active ingredient per acre) depending upon soil type, weed species and level of infestation.

Weeds	Pints Willowood Pronamide 3.3SC Per Acre Broadcast Application¹	Soil Texture Group¹
Susceptible annual grasses and broadleaf weeds	1.25-2.5 (surface application)	Coarse and medium textured soils
	1.25-2.5 (surface application)	Fine textured soils

¹ Soil Texture Group:

Coarse: sand, loamy sand, sandy loam

Medium: loam, silt loam, silt, sandy clay loam

Fine: silty clay loam, clay loam, sandy clay, silty clay, clay

Split Chemigation Application:

Willowood Pronamide 3.3SC chemigation application can be split, so that part of the maximum allowable application rate of the product can be initially applied to head or leaf lettuce, endive, escarole or radicchio greens, and the balance of the maximum allowable application rate can be applied up to 10 days later. Total amount of **Willowood Pronamide 3.3SC** applied must not exceed 2.5 pints product (1 lb. active ingredient) per acre per crop season. For leaf lettuce, the total amount of **Willowood Pronamide 3.3SC** applied must not exceed 2.5 pints product (1 lb. active ingredient) per acre per crop, or more than 5 pints product (2 lbs. active ingredient) per acre per year.

Application Moisture Requirements: **Willowood Pronamide 3.3SC** acts mainly through root absorption; therefore, it is necessary to move **Willowood Pronamide 3.3SC** into the root zone of germinating weeds to provide effective control. This can be accomplished by applying a minimum of 0.75 inch of overhead sprinkler irrigation when applied by chemigation to fields that have been pre-irrigated.

Time of Treatment: Applying **Willowood Pronamide 3.3SC** following initial irrigation of the crop may help limit movement of the herbicide below the root zone of germinating weeds and may improve weed control. Depending on climatic conditions, chemigation generally should be within three to six days after the first postplant irrigation. The following recommendations are provided as a general guideline for AZ and CA desert growing conditions. Optimal chemigation timing for other growing areas may differ from those listed below.

Timing	Date	Application Timing (Days After Starting Sprinklers)
Early	Sept. 1 to Oct. 15	1-3
Mid	Oct. 15 to Dec. 15	3-6
Late	Dec. 15 to Jan.	5-6

Chemigation Equipment: **Willowood Pronamide 3.3SC** may be applied through center pivot, lateral move, solid set or hand move systems capable of uniform delivery of the herbicide. Solid set or hand move systems should be capable of delivering a uniform pressure of 60 to 70 psi at all nozzles. Pipes and nozzles must be positioned to provide uniform coverage of the treatment area. Placement of nozzles in a diamond shaped (◆) pattern will provide more uniform coverage. Do not apply when wind velocity is sufficient to distort uniformity of coverage or cause drift to susceptible non-target plants.

The injection-metering pump must be calibrated as specified by the manufacturer and checked periodically during application to ensure proper operation. Pesticide injection hoses, which connect chemigation-metering equipment to the sprinkler irrigation system, must be of braided reinforced construction with an internal tube made of nylon, cross-linked polyethylene, or high-density polyethylene.

Mixing: Mixing tanks should be large enough to contain the entire amount of herbicide mixture for the area to be treated. Use a minimum of 3 gallons of water per 1.2 pints of **Willowood Pronamide 3.3SC**. Agitation of the herbicide mixture is required at all times during mixing and application (injection).

Application: For hand move or solid set systems set up to deliver about 1/10 inch of water per hour, **Willowood Pronamide 3.3SC** should be injected over a period of 1 to 2 hours. Once the herbicide has been injected, continue irrigation for at least the time required to flush the system and deliver additional irrigation sufficient to incorporate the herbicide into the upper inch of soil.

Chemigation Use Restrictions for Head or Leaf Lettuce, Endive, Escarole, or Radicchio Greens

- Do not apply **Willowood Pronamide 3.3SC** to direct seeded varieties of head lettuce, endive, escarole and radicchio greens that will be harvested less than 55 days after treatment or transplanted head lettuce that will be harvested less than 35 days after application.
- For use on leaf lettuce, follow the table below for preharvest intervals based on the appropriate use rate.

Use Rate	PHI
Up to 1.25 pts./A (0.5 lb. ai/A)	25 days
Up to 1.8 pts./A (0.75 lb. ai/A)	35 days
Up to 2.5 pts./A (1.0 lb. ai/A)	45 days

- Do not apply more than one application of **Willowood Pronamide 3.3SC** per crop to head or leaf lettuce, endive, escarole, or radicchio greens or more than two applications if split application is made.
- Do not apply **Willowood Pronamide 3.3SC** postemergence to endive, escarole, or radicchio greens.

- For head lettuce, endive, escarole, or radicchio greens, do not apply more than 1 lb./acre active ingredient (2.5 pts./acre of **Willowood Pronamide 3.3SC**) per crop.
- For leaf lettuce, do not apply more than 1 lb./acre active ingredient (2.5 pints./acre **Willowood Pronamide 3.3SC**) per crop, or more than 2 lbs. active ingredient (5 pints **Willowood Pronamide 3.3SC**) per acre per year.

Chemigation Instructions

Do not apply this product through any irrigation system unless the instructions for chemigation are followed. Apply this product only through continuously moving center pivot, lateral move end tow, solid set, or hand move irrigation systems. Do not apply this product through any other type of irrigation system.

Crop injury, lack of effectiveness, or illegal pesticide residues in the crop can result from nonuniform distribution of treated water.

If you have questions about calibration, you should contact State Extension Service specialists, equipment manufacturers, or other experts.

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

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.

Sprinkler Chemigation

1. Do not connect an irrigation system (including greenhouse systems) used for pesticide application to a public water system.
2. The 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 back-flow.
3. The pesticide injection pipeline must contain a functional automatic, quick closing check valve to prevent the flow of fluid back toward the injection pump.
4. The pesticide injection pipeline must also contain a functional, normally closed, solenoid-operated valve located on the intake side of the injection pump and connected to the system interlock to prevent fluid from being withdrawn from the supply tank when the irrigation system is either automatically or manually shut down.
5. The system must contain functional interlocking controls to automatically shut off the pesticide injection pump when the water pump motor stops.
6. 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 that pesticide distribution is adversely affected.
7. 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 pesticides and capable of being fitted with a system interlock.
8. Do not apply when wind speed favors drift beyond the area intended for treatment.

RHUBARB

(Michigan, Oregon, and Washington Only)

Use Information

Willowood Pronamide 3.3SC is a selective herbicide for fall and winter applications to established rhubarb for both preemergence and postemergence control of winter annual and perennial grasses and chickweed and preemergence control of certain broadleaf weeds.

Dosage

Willowood Pronamide 3.3SC may be applied at the rate of 2.5 to 5.0 pints of product (1 to 2 lbs. active ingredient) per acre broadcast application. The rate will depend on the weed species present. Follow the weed control instructions listed in the chart below:

Weeds Controlled	Pints of Willowood Pronamide 3.3SC Per Acre ¹ Dependable Rainfall or Overhead Irrigation ²
bluegrass, annual brome, downy (cheatgrass) chickweed oat, wild sorrel, red (from seed)	2.5
bentgrass ³ bluegrass, Kentucky fescue, tall ³ orchardgrasses ³ quackgrass ryegrass, perennial velvetgrass ³	5.0

¹ Dosage rates specified are in pints of **Willowood Pronamide 3.3SC** per acre broadcast application. Reduce rates accordingly for banded applications.

² For effective weed control, rainfall or overhead irrigation is essential following the application of **Willowood Pronamide 3.3SC**.

³ **Willowood Pronamide 3.3SC** at the rate of 5.0 pints of product per acre may only provide partial control to these weeds.

Crop Tolerance

Established rhubarb plants, in a dormant growth condition, are tolerant to specified rates of **Willowood Pronamide 3.3SC**. Do not apply **Willowood Pronamide 3.3SC** to newly transplanted rhubarb or to rhubarb during the active growing stage.

Timing and Application

Apply **Willowood Pronamide 3.3SC** in a single application during the fall or winter months as a broadcast surface application to dormant rhubarb. Optimum herbicidal activity occurs when applications are made after soil temperatures drop to 55°F or less and are followed by rainfall or overhead irrigation. Applications must be made prior to soil freeze up and snow cover.

Mix the specified amount of **Willowood Pronamide 3.3SC** in clean water and apply uniformly with a low-pressure ground sprayer in 20 to 50 gallons of water per acre.

Rhubarb – Specific Use Restrictions

- Do not apply **Willowood Pronamide 3.3SC** to rhubarb within 38 days of harvest.
- Use of **Willowood Pronamide 3.3SC** in rhubarb is restricted to Michigan, Oregon, and Washington only.
- Do not apply more than 2 lbs./acre active ingredient (5.0 pints/acre **Willowood Pronamide 3.3SC**) or make more than one application per year.

APPLE, APRICOT, CHERRY, NECTARINE, PEACH, PEAR, PLUM, PRUNE, AND GRAPE PLANTINGS

Use Information

Willowood Pronamide 3.3SC is a selective herbicide for use in directed spray applications for the control of winter annual and perennial grasses and certain broadleaf weeds in non-bearing and bearing apples, apricots, cherries, nectarines, peaches, pears, plums, prunes, and grape plantings.

Weed Control

Willowood Pronamide 3.3SC is effective at 2.5 to 5.0 pints of product (1 to 2 lbs. active ingredient) per treated acre for the preemergence and postemergence control of susceptible winter annual and perennial grasses and chickweed and for preemergence control only of other broadleaf weeds listed on this label. Refer to chart in dosage rate section below for specific weeds controlled.

SPECIMEN

Dosage and Timing

Willowood Pronamide 3.3SC may be applied in a single, directed application to labeled fruit trees and grape plantings at dosage rates of 2.5 to 5.0 pints of product (1 to 2 lbs. active ingredient) per treated acre. Application of **Willowood Pronamide 3.3SC** must be in the fall, after the fruit is harvested, but prior to soil freeze-up.

The dosage rate required for effective weed control will depend on the weed species present and the soil texture of the area being treated. Follow the specific rate instructions given in the chart below for the use of **Willowood Pronamide 3.3SC** in labeled fruit trees and grapes.

Weeds Controlled	Pints of Willowood Pronamide 3.3SC Per Acre		
	Dependable Rainfall or Overhead Irrigation		
	Soil Texture Group ¹		
	Coarse	Medium	Fine
bluegrass, annual brome, downy (cheatgrass) chickweed grain, volunteer oat, wild ryegrass, Italian sorrel, red (from seed)	2.5	3.5	5.0
bluegrass, Kentucky fescue, tall orchardgrass quackgrass ryegrass, perennial	3.5-5.0	5.0	5.0

¹ Soil Texture Group:

Coarse: sand, loamy sand, sandy loam

Medium: loam, silt loam, silt, sandy clay loam

Fine: silty clay loam, clay loam, sandy clay, silty clay, clay

Application

Mix the specified amount of **Willowood Pronamide 3.3SC** in clean water and apply uniformly in 40 to 50 gallons of water per acre. Use a low pressure ground sprayer equipped with a breakaway boom and flat fan or off-center (OC) nozzles. Direct **Willowood Pronamide 3.3SC** to the soil and the base of trees and vines.

Note: Dosage instructions listed on this label are for surface broadcast application. For banded treatments, reduce the amount of **Willowood Pronamide 3.3SC** used per acre according to the following formula:

$$\frac{\text{Width (in inches)}}{\text{Row Width (in inches)}} \times \text{Rate per Acre Broadcast} = \text{Amount Needed per Acre for Band Application}$$

Willowood Pronamide 3.3SC may not be soil incorporated.

Crop Tolerance

When used according to label directions, established non-bearing or bearing fruit trees and grapes listed on this label are very tolerant to **Willowood Pronamide 3.3SC**. **Willowood Pronamide 3.3SC** may not be applied to seedling trees or vines less than 1 year old or to fall transplanted stock transplanted less than 1 year or to spring transplanted stock transplanted less than 6 months.

Cultural Considerations

Willowood Pronamide 3.3SC acts mainly through root absorption in sensitive weed species. Dependable rainfall or overhead irrigation is essential following the application for effective weed control. Trash-free areas create ideal conditions for rapid movement of **Willowood Pronamide 3.3SC** into the weed root zone following rain or irrigation. Clean cultivation before application is preferable but not necessary.

To obtain optimum weed control in areas not clean cultivated, the area to be treated must be free of surface litter (dead or decaying weeds, leaves, mowing clippings, etc.) If area to be treated is under a mixed grass or weed sod, it must be mowed and the clippings removed.

Apple, Apricot, Cherry, Nectarine, Peach, Pear, Plum, Prune, and Grape Plantings – Specific Use Restrictions

- Do not feed or allow livestock to graze areas treated with **Willowood Pronamide 3.3SC**.
- Do not apply more than 2 lbs./acre active ingredient (5.0 pints/acre of **Willowood Pronamide 3.3SC**) to labeled fruit trees or grapes or make more than one application per year.

WINTER PEAS

Winter Annual Weed Control in Winter Peas (Idaho, Oregon, and Washington Only)

Use Information

Willowood Pronamide 3.3SC is a selective herbicide for the control of certain winter annual grasses and broadleaf weeds in winter peas (*Pisum sativum* var. *arvense*).

Grasses

barley, volunteer
brome, downy
oat, volunteer
oat, wild
ryegrass, Italian
wheat, volunteer

Broadleaf Weeds

chickweed, common
chickweed, mouse-ear
henbit¹

¹Preemergence control only

Dosage

Apply **Willowood Pronamide 3.3SC** in a single, broadcast application at the rate of 2.0 to 3.5 pints of product (0.75 to 1.5 lbs. active ingredient) per treated acre. For grass weeds greater than three inches in height use the higher rate.

Timing

Apply **Willowood Pronamide 3.3SC** from mid-fall to early winter (November to January) early postemergence to the peas. Peas should be in the second node stage of growth (two to three inches in size) at time of application.

Application

Mix the specified amount of **Willowood Pronamide 3.3SC** in clean water and apply uniformly with a ground sprayer in 20 to 50 gallons of water per treated acre. Use a conventional herbicide sprayer equipped with flat fan nozzles that provide uniform spray distribution.

Winter Peas – Specific Use Restrictions

- Do not feed treated vines to livestock or allow animals to graze on treated areas.
- Do not apply more than 1.5 lbs./acre active ingredient (3.5 pints/acre of **Willowood Pronamide 3.3SC**) or make more than one application per year.

ATTENTION: This product contains propyzamide (pronamide) a chemical known to the State of California to cause cancer.

STORAGE AND DISPOSAL

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

PESTICIDE STORAGE: Store in a cool, dry place but not below 32°F (0°C).

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. Triple rinse container or equivalent promptly after emptying.

Nonrefillable container ≤ 5 gallons: 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. Then offer for recycling or reconditioning, or puncture and dispose of in a sanitary landfill or incineration.

Nonrefillable > 5 gallons: 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. Then offer for recycling or reconditioning, or puncture and dispose of in a sanitary landfill or incineration.

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.

The Directions for Use of this product must be followed carefully. It is impossible to eliminate all risks inherently associated with the use of this product. Ineffectiveness or other unintended consequences may result because of such factors as manner of use or application, weather, presence of other materials or other influencing factors in the use of the product, which are beyond the control of Willowood, LLC or Seller. To the extent consistent with applicable law, all such risks shall be assumed by Buyer and User, and Buyer and User agree to hold Willowood, LLC and Seller harmless for any claims relating to such factors.

Willowood, LLC warrants that this product conforms to the chemical description on the label and is reasonably fit for the purposes stated in the Directions for Use, subject to the inherent risks referred to above, when used in accordance with directions under normal use conditions. This warranty does not extend to the use of this product contrary to label instructions, or under abnormal conditions or under conditions not reasonably foreseeable to or beyond the control of Seller or Willowood, LLC, and Buyer and User assume the risk of any such use. **TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, WILLOWOOD, LLC MAKES NO WARRANTIES OF MERCHANTABILITY OR OF FITNESS FOR A PARTICULAR PURPOSE NOR ANY OTHER EXPRESS OR IMPLIED WARRANTY EXCEPT AS STATED ABOVE.**

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