

100-603

11/06/2009

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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
WASHINGTON, D.C. 20460

OFFICE OF  
PREVENTION, PESTICIDES AND  
TOXIC SUBSTANCES

NOV 6 2009

Ms. Pat Dinnen  
Product Registration  
Syngenta Crop Protection  
P.O. Box 18300  
Greensboro, NC 27419

Subject: Label Notification for Pesticide Registration Notice 2007-4  
(Storage & Disposal Changes)

Dear Registrant:

The Agency is in receipt of your Application(s) for Pesticide Notification under Pesticide Registration Notice (PRN) 2007-4 dated September 25, 2009 for:

**EPA Reg. 100-603 "PRINCE CALIBER 90 HERBICIDE"**

The Registration Division (RD) has conducted a review of this request for applicability under PRN 2007-4 and finds that the label change(s) requested falls within the scope of PRN 2007-4. The label has been date-stamped "Notification" and will be placed in our records.

Please be reminded that 40 CFR Part 156.140(a)(4) requires that a batch code, lot number, or other code identifying the batch of the pesticide distributed and sold be placed on nonrefillable containers. The code may appear either on the label (and can be added by non-notification/PR Notice 98-10) or durably marked on the container itself.

If you have any questions, please contact me directly at 703-305-6249 or Owen F. Beeder of my staff at 703-308-8899.

Sincerely,

A handwritten signature in black ink, appearing to read "Linda Arrington".

Linda Arrington  
Notifications & Minor Formulations Team Leader  
Registration Division (7505P)  
Office of Pesticide Programs

Syngenta Crop Protection, Inc.  
P.O. Box 18300  
Greensboro, NC 27419-8300  
www.syngenta.com



**FedEx**

September 25, 2009

Document Processing Desk (NOTIF)  
Office of Pesticide Programs (7504P)  
U.S. Environmental Protection Agency  
Room S-4900, One Potomac Yard  
2777 South Crystal Drive  
Arlington, VA 22202-4501

Attention: Ms. Linda Arrington

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| <p><b>SUBJECT: PRINCEP® CALIBER 90® HERBICIDE<br/>EPA REG. NO. 100-603<br/>NOTIFICATION OF LABEL CHANGE PER PR NOTICE 2007-4</b></p> |
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Syngenta Crop Protection, Inc. is submitting Notification for Princep Caliber 90 Herbicide, EPA Reg. No. 100-603. Syngenta is amending the Storage and Disposal section of the label by Notification according to the directions stated in PR Notice 2007-4.

Attached are:

- One copy of the label with the changes clearly marked
- One unmarked copy of the label
- A CD of the unmarked copy of the label for "Electronic Comparison and Review"
- Certificate with Respect to Label Integrity Form
- Completed EPA Form 8570-1

Thank you in advance for approving this Notification. If you have any questions, please contact me at 336-632-2494.

Sincerely,

*Pat Dinnen*

Pat Dinnen  
Label Group Leader  
Regulatory Affairs

Enclosures

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Permanent Label  
(Booklet)  
(Master Label)

|       |   |           |
|-------|---|-----------|
| GROUP | 5 | HERBICIDE |
|-------|---|-----------|

Princep® Caliber 90®

Herbicide

For weed control in certain crops

**NOTIFICATION**

**NOV - 6 2009**

Active Ingredient:

|  |       |
|--|-------|
| Simazine: 2-chloro-4,6-bis(ethylamino)-s-triazine..... | 90.0% |
|--|-------|

|                    |       |
|--------------------|-------|
| Other Ingredients: | 10.0% |
|--------------------|-------|

|        |        |
|--------|--------|
| Total: | 100.0% |
|--------|--------|

**KEEP OUT OF REACH OF CHILDREN.**

**CAUTION**

See additional precautionary statements and directions for use inside booklet.

EPA Reg. No. 100-603

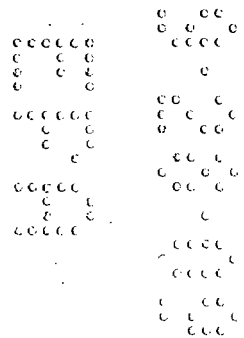
EPA Est. 100-LA-001

Princep Caliber 90 is a water-dispersible granule.

SCP 603 MAS

10 pounds  
Net Weight

25 pounds  
Net Weight



| <b>FIRST AID</b>   |  |
|--|--|
| <b>If on skin or clothing</b>  | <ul style="list-style-type: none"> <li>• Take off contaminated clothing.</li> <li>• Rinse skin immediately with plenty of water for 15-20 minutes.</li> <li>• Call a poison control center or doctor for treatment advice.</li> </ul>  |
| <b>If in eyes</b>  | <ul style="list-style-type: none"> <li>• Hold eye open and rinse slowly and gently with water for 15-20 minutes.</li> <li>• Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye.</li> <li>• Call a poison control center or doctor for treatment advice.</li> </ul>  |
| <b>If swallowed</b>  | <ul style="list-style-type: none"> <li>• Call a poison control center or doctor immediately for treatment advice.</li> <li>• Have person sip a glass of water if able to swallow.</li> <li>• Do not induce vomiting unless told to do so by a poison control center or doctor.</li> <li>• Do not give anything by mouth to an unconscious person.</li> </ul> |
| <b>If inhaled</b>  | <ul style="list-style-type: none"> <li>• Move person to fresh air.</li> <li>• If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth, if possible.</li> <li>• Call a poison control center or doctor for further treatment advice.</li> </ul>   |
| Have the product container or label with you when calling a poison control center or doctor, or going for treatment.   |  |
| <b>HOT LINE NUMBER</b><br>For 24 Hour Medical Emergency Assistance (Human or Animal) or Chemical<br>Emergence Assistance (Spill, Leak, Fire, or Accident), Call<br><b>1-800-888-8372</b> |  |

**PRECAUTIONARY STATEMENTS**

**Hazards to Humans and Domestic Animals**

**CAUTION**

Harmful if swallowed, inhaled, or absorbed through the skin. Avoid breathing dust or spray mist. Avoid contact with eyes, skin, or clothing.

## **Personal Protective Equipment (PPE)**

Some materials that are chemical-resistant to this product are listed below. If you want more options, follow the instructions for Category C on an EPA chemical resistance category selection chart.

### **Mixers and loaders supporting groundboom applications must wear:**

- Coveralls over long-sleeved shirt and long pants
- Chemical resistant gloves
- Chemical-resistant footwear plus socks
- Chemical-resistant apron
- A NIOSH-approved respirator with a dust mist filter (with MSHA/NIOSH approval number prefix TC-21C or with any N, R, P, or HE filter)

### **All other mixers, loaders, applicators, and other handlers must wear:**

- Long-sleeved shirt and long pants
- Shoes plus socks
- Chemical-resistant gloves

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.

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

## **Engineering Control Statements**

When handlers use enclosed cabs in a manner that meets the requirements listed in the Worker Protection Standard (WPS) for agricultural pesticides [40 CFR 170.240(d)(4-5)], the handler PPE requirements may be reduced or modified as specified in the WPS.

## **User Safety Recommendations**

### **Users should:**

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

## **Environmental Hazards**

Simazine can travel (seep or leach) through soil and can enter ground water which may be used as drinking water. Simazine has been found in ground water. Users are advised not to apply simazine to sand and loamy sand soils where the water table (ground water) is close to the surface and where these soils are very permeable; i.e., well-drained. Your local agricultural agencies can provide further information on the type of soil in your area and the location of ground water.

This pesticide is toxic to aquatic invertebrates. Do not apply directly to water, to areas where surface water is present, or to intertidal areas below the mean high water mark. Runoff and drift from treated areas may be hazardous to aquatic organisms in neighboring areas. Do not contaminate water when disposing of equipment wash water.

Product must not be mixed or loaded within 50 feet of intermittent streams and rivers, natural or impounded lakes and reservoirs. Product must not be applied within 66 feet of points where field surface water runoff enters perennial or intermittent streams and rivers or within 200 feet of natural or impounded lakes and reservoirs. If this product is applied to highly erodible land, the 66 foot buffer or setback from runoff entry points must be planted to crop, or seeded with grass or other suitable crop.

Product must not be mixed or loaded, or used within 50 feet of all wells, including abandoned wells, drainage wells, and sink holes. Operations that involve mixing, loading, rinsing, or washing of this product into or from pesticide handling or application equipment or containers within 50 ft. of any well are prohibited, unless conducted on an impervious pad constructed to withstand the weight of the heaviest load that may be positioned on or moved across the pad. Such a pad shall be designed and maintained to contain any product spills or equipment leaks, container or equipment rinse or wash water, and rain water that may fall on the pad. Surface water shall not be allowed to either flow over or from the pad which means the pad must be self-contained. The pad shall be sloped to facilitate material removal. An unroofed pad shall be of sufficient capacity to contain at a minimum 110% of the capacity of the largest pesticide container or application equipment on the pad. A pad that covered by a roof of sufficient size to completely exclude precipitation from contact with the pad shall have a minimum containment of 100% of the capacity of the largest pesticide container or application equipment on the pad. Containment capacities as described above shall be maintained at all times. The above-specified minimum containment capacities do not apply to vehicles when delivering pesticide to the mixing/loading sites.

Additional State imposed requirements regarding well-head setbacks and operational area containment must be observed.

One of the following restrictions must be used in applying simazine to tile-outletted terraced fields containing standpipes:

- Do not apply within 66 feet of standpipes in tile-outletted terraced fields.

- Apply this product to the entire tile-outletted terraced field and immediately incorporate it to a depth of 2-3 inches in the entire field.
- Apply this product to the entire tile-outletted terraced field under a no-till practice only when a high crop residue management practice is practiced. High crop residue management is described as a crop management practice where little or no crop residue is removed from the field during and after crop harvest.

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**CONDITIONS OF SALE AND LIMITATION OF WARRANTY AND LIABILITY**

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**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. Crop injury, ineffectiveness or other unintended consequences may result because of such factors as manner of use or application, weather or crop conditions, presence of other materials or other influencing factors in the use of the product, which are beyond the control of SYNGENTA CROP PROTECTION, Inc. or Seller. To the extent permitted by applicable law, Buyer and User agree to hold SYNGENTA and Seller harmless for any claims relating to such factors.

SYNGENTA 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. To the extent permitted by applicable law: (1) this warranty does not extend to the use of the product contrary to label instructions, or under conditions not reasonably foreseeable to or beyond the control of Seller or SYNGENTA, and, (2) Buyer and User assume the risk of any such use. **TO THE EXTENT PERMITTED BY APPLICABLE LAW, SYNGENTA MAKES NO WARRANTIES OF MERCHANTABILITY OR OF FITNESS FOR A PARTICULAR PURPOSE NOR ANY OTHER EXPRESS OR IMPLIED WARRANTY EXCEPT AS WARRANTED BY THIS LABEL.**

To the extent permitted by applicable law, in no event shall SYNGENTA be liable for any incidental, consequential or special damages resulting from the use or handling of this product. **TO THE EXTENT PERMITTED BY APPLICABLE LAW, THE EXCLUSIVE REMEDY OF THE USER OR BUYER, AND THE EXCLUSIVE LIABILITY OF SYNGENTA AND SELLER FOR ANY AND ALL CLAIMS, LOSSES, INJURIES OR DAMAGES (INCLUDING CLAIMS BASED ON BREACH OF WARRANTY, CONTRACT, NEGLIGENCE, TORT, STRICT LIABILITY OR OTHERWISE) RESULTING FROM THE USE OR HANDLING OF THIS PRODUCT, SHALL BE THE RETURN OF THE PURCHASE PRICE OF THE PRODUCT OR, AT THE ELECTION OF SYNGENTA OR SELLER, THE REPLACEMENT OF THE PRODUCT.**

SYNGENTA and Seller offer this product, and Buyer and User accept it, subject to the foregoing conditions of sale and limitations of warranty and of liability, which may not be modified except by written agreement signed by a duly authorized representative of SYNGENTA.



## DIRECTIONS FOR USE

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

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.

ANY USE OF THIS PRODUCT IN AN AREA WHERE USE IS PROHIBITED IS A VIOLATION OF FEDERAL LAW. Before using this product, you must consult the Simazine Watershed Information Center (SWIC) to determine whether the use of this product is prohibited in your watershed. SWIC can be accessed through [www.simazine-watershed.info](http://www.simazine-watershed.info) or 1-888-365-2874. If the SWIC indicates that use of this product is prohibited in your watershed, you may return this product to your point of purchase or contact Syngenta Crop Protection, Inc. for a refund.

### 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.

**For Christmas trees, do not enter or allow worker entry into treated areas during the restricted-entry interval (REI) of 48 hours. For all other crops and use patterns, do not enter or allow worker entry into treated areas during the restricted-entry interval (REI) of 12 hours.** Exception: If the product is soil-injected or soil-incorporated, the Worker Protection Standard, under certain circumstances, allows workers to enter the treated area if there will be no contact with anything that has been treated.

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 170). The WPS applies when this product is used to produce agricultural plants on farms, forests, nurseries, or greenhouses.

**Do not enter or allow others (including children or pets) to enter treated areas until sprays have dried.**

**FAILURE TO FOLLOW THE DIRECTIONS FOR USE AND PRECAUTIONS ON THIS LABEL MAY RESULT IN CROP INJURY, POOR WEED CONTROL, AND/OR ILLEGAL RESIDUES.**

Do not apply this product through any type of irrigation system.

This product is not for use in formulating end-use products for aquatic use.

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**GENERAL INFORMATION**

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**Aerial application is prohibited.** [will be printed in red text]

When tank mixing or sequentially applying simazine or products containing simazine, the total pounds of simazine applied must not exceed the specific maximum rate per calendar year as noted in the use directions.

Apply this herbicide before weeds emerge or after removal of weed growth. Princep Caliber 90 controls a wide variety of annual broadleaf and grass weeds when used at selective rates in agricultural crops.

Where a range of application rates is given, use the low rate on coarse-textured soil and soil lower in organic matter; use the high rate on fine-textured soil and soil higher in organic matter.

To avoid spray drift, do not apply under windy conditions. Avoid spray overlap, as crop injury may result.

Since this product enters weeds mainly through their roots, moisture is needed to move it into the root zone. Very dry soil conditions and lack of rainfall following application may necessitate shallow cultivation.

This product is noncorrosive to equipment, nonflammable, and has low electrical conductivity.

**ANNUAL WEEDS CONTROLLED**

alyssum  
 annual bluegrass  
 annual morningglory  
 annual ryegrass  
 barnyardgrass (watergrass)  
 burclover  
 carelessweed  
 carpetweed  
 common chickweed  
 crabgrass (*Digitaria* spp.)  
 downy brome (cheatgrass)  
 fall panicum  
 fiddleneck  
 filaree  
 fireweed  
 fivehook bassia  
 Flora's paintbrush  
 Florida pusley  
 foxtails  
 goosegrass  
 groundsel  
 henbit  
 junglerice  
 knawel (German moss)

common lambsquarters  
 nightshade  
 pepperweed  
 pigweed  
 pineappleweed  
 prickly lettuce  
 common purslane  
 ragweed  
 rattail fescue  
 redmaids  
 Russian thistle  
 shepherdspurse  
 signalgrass (*Brachiaria* spp.)  
 silver hairgrass  
 smartweed  
 spanishneedles  
 speedwell  
 tansymustard  
 wild mustard  
 wild oats  
 witchgrass  
 yellow flower pepperweed

**RESISTANCE MANAGEMENT**

Princep Caliber 90 is a **Group 5 Herbicide** (contains the active ingredient simazine).

Following many years of continuous use of this product and chemically related products, biotypes of some of the weeds listed on this label have been reported which cannot be effectively controlled by this and related herbicides. Where this is known or suspected, and weeds controlled by this product are expected to be present along with resistant biotypes, we recommend the use of this product in registered combinations or in sequence with other registered herbicides which are not triazines, i.e. which are not solely a Group 5 Herbicide. If only resistant biotypes are expected to be present, use a registered herbicide which is not solely a Group 5 Herbicide. Consult with your State Agricultural Extension Service for specific recommendations.

**PERENNIAL CROP REPLANTING**

If replanting perennial crops, do not apply Princep Caliber 90 in the year preceding planting these crops, unless otherwise stated on this label, or crop injury may occur.

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## APPLICATION PROCEDURES

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**Ground application:** Use conventional ground sprayers equipped with nozzles that provide accurate and uniform application. Be certain that nozzles are uniformly spaced and the same size. Calibrate sprayer before use and recalibrate at the start of each season and when changing carriers. Unless otherwise specified, use a minimum of 20 gals. of spray mixture per acre.

Use a pump with capacity to: (1) maintain 35-40 psi at nozzles, (2) provide sufficient agitation in tank to keep mixture in suspension, and (3) to provide a minimum of 20% bypass at all times. Use centrifugal pumps which provide propeller shear action for dispersing and mixing this product. The pump should provide a minimum of 10 gals./minute/100 gal. tank size circulated through a correctly positioned sparger tube or jets.

Use screens to protect the pump and to prevent nozzles from clogging. Screens placed on suction side of pump should be 16-mesh or coarser. Do not place a screen in the recirculation line. Use 50-mesh or coarser screens between the pump and boom, and where required, at the nozzles. Check nozzle manufacturer's recommendations.

For band applications, calculate amount to be applied per acre as follows:

$$\frac{\text{band width in inches}}{\text{row width in inches}} \times \text{broadcast rate per acre} = \text{amount needed per acre of field}$$

### Spray Drift Management

A variety of factors including weather conditions (e.g., wind direction, wind speed, temperature, relative humidity) and method of application (e.g., ground chemigation) can influence pesticide drift. The applicator and grower must evaluate all factors and make appropriate adjustments when applying this product.

### Wind Speed

Do not apply at wind speeds greater than 10 mph.

### Droplet Size

Apply as a coarse or coarser spray (ASAE standard 572).

### Release Height

For groundboom applications apply with a nozzle height no more than 4 feet above the ground or crop canopy.

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## MIXING PROCEDURES

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**All Uses:** (1) Be sure sprayer is clean and not contaminated with any other materials, as crop injury or sprayer clogging may result. (2) Fill tank 1/4 full with clean water, nitrogen solution, or complete fluid fertilizer. (3) Start agitation. (4) Be certain that the agitation system is working properly and creates a rippling or rolling action on the liquid surface. (5) Pour product directly from bag into tank. (6) Continue filling tank until 90% full. Increase agitation if necessary to maintain surface action. (7) Add tank mix herbicide(s) after this product is thoroughly suspended. (8) Finish filling tank. Maintain agitation to avoid separation of materials. (9) Empty tank as completely as possible before refilling to prevent buildup of emulsifiable concentrate residue from possible tank mix herbicides. (10) If an emulsifiable concentrate film starts to build up in tank, drain it and clean with strong detergent solution or solvent. (11) Clean sprayer thoroughly immediately after use by flushing system with water containing a detergent.

**Compatibility test:** To determine the tank mix compatibility of Princep Caliber 90 with liquid fertilizer, crop oil, spreaders, or recommended pesticides, use this test method. Nitrogen solutions or complete fluid fertilizers may replace all or part of the water in the spray in corn. Since liquid fertilizers can vary, even within the same analysis, check compatibility each time before use. Be especially careful when using **complete** suspension or fluid fertilizers, as serious compatibility problems are more apt to occur. Commercial application equipment may improve compatibility in some instances. Check compatibility using this procedure:

1. Add 1 pt. of fertilizer to each of 2 one-qt. glass jars with tight lids.
2. To **one** of the jars, add 1/4 tsp. of a compatibility agent approved for this use (1/4 tsp. is equivalent to 2 pts./100 gals. spray). Cap and shake until mixed. Examples of compatibility agents include Compex® and Unite®.

- 3. To **both** jars, add the appropriate amount of herbicide(s). If more than one herbicide is used, add them separately with dry herbicides first, flowables next, and emulsifiable concentrates last. After each addition, cap and shake until thoroughly mixed. The appropriate amount of herbicides for this test follows (assuming a spray volume of 25 gals./A):

**Dry herbicides:** For each pound per acre, add 1.5 teaspoons to each jar. Fluff up wettable powder products before measuring.

**Liquid herbicides:** For each pint per acre, add 0.5 teaspoon to each jar.

For a spray volume other than 25 gals./A, change the teaspoons added to each jar as follows:

$$\frac{25 \text{ gals. X no. teaspoons given above}}{\text{desired gals. spray volume per acre}} = \text{teaspoons to add to each jar}$$

- 4. After adding all ingredients, put lids on and tighten. Shake jars vigorously one minute. Let the mixtures stand 15 minutes and then look for separation, large flakes, precipitates, grease, gels, medium to heavy oily film on the jar, or other signs of incompatibility. Determine if the compatibility agent is needed in the spray mixture by comparing the 2 jars. If either mixture separates, but can be remixed readily, the mixture probably can be sprayed as long as good agitation is used. If the mixtures are incompatible, test the following methods of improving compatibility: (A) slurry the dry herbicide(s) in water before addition, or (B) add 1/2 of the compatibility agent to the fertilizer and the other 1/2 to the emulsifiable concentrate or flowable herbicide before addition to the mixture. If still incompatible, do not use the materials mixed in the same spray tank.

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## **CROP USE DIRECTIONS**

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### **FRUIT AND NUT CROPS**

Apply the spray to the orchard or vineyard floor, avoiding contact with fruit, foliage, or stems. Specified rates are based on broadcast treatment. For band applications or spot applications around fruit or nut trees, reduce the broadcast rate of this product and water per acre in proportion to the area actually sprayed.

*Precautions (All fruit and nut crops): To avoid crop injury, (1) Apply only to orchards or groves where trees have been established 12 months or more, unless specified differently. (2) Make only one application per year, except as noted otherwise. (3) Do not use on gravelly, sand, or loamy sand soil. (4) Immediately following application, limit overhead sprinkler irrigation to 1/2 inch.*

#### **Almonds, Peaches, and Nectarines (CA only)**

Princep Caliber 90 must be applied in a 2 to 4-ft. band on each side of the tree row at a rate of 1.1-2.2 lbs. Princep Caliber 90 per treated acre. Apply before weeds emerge in late fall or early winter. Weeds controlled by 1.1 lbs. include burclover, common chickweed, wild mustard, and shepherdspurse. Do not apply more than 2.2 lbs. Princep Caliber 90 (2 lbs. a.i./per treated acre) per calendar year. Do not apply more than once per calendar year.

*Precautions: To avoid crop injury, (1) Do not treat trees established in the grove less than 3 years. (2) Do not treat the Mission (TX) variety of almonds. (3) Do not apply to almond trees propagated on plum rootstocks. (4) Do not replant almonds, peaches, or nectarines in treated soil for 12 months after treatment. (5) Do not apply to soil with less than 1% organic matter. (6) Do not treat areas where water will accumulate.*

#### **Apples, Pears, and Tart Cherries**

Apply 2.2-4.4 lbs./A Princep Caliber 90. Do not apply more than 4.4 lbs./A Princep Caliber 90 (4 lbs. a.i./A) per calendar year. Do not apply more than once per calendar year. For apples, the pre-harvest interval is 150 days.

#### **Avocados**

**CA and FL only:** Apply 2.2-4.4 lbs./A Princep Caliber 90 after final preparation of grove. Do not apply more than 4.4 lbs. Princep Caliber 90 (4 lbs. a.i./A) per calendar year. Do not apply more than once per calendar year.

**Blueberries and Caneberries (blackberries, boysenberries, loganberries, raspberries)**

Apply 2.2-4.4 lbs./A Princep Caliber 90 in the spring or apply a split application of 2.2 lbs./A Princep Caliber 90 in the spring plus 2.2 lbs./A Princep Caliber 90 in the fall. Apply in a minimum of 40 gals. of water per acre.

On plantings less than 6 months old, use 1/2 the above rate.

To control quackgrass, apply 4.4 lbs./A Princep Caliber 90 in the fall or split the application applying 2.2 lbs./A Princep Caliber 90 in the fall plus 2.2 lbs./A Princep Caliber 90 in the spring, when quackgrass is actively growing.

Do not apply more than 4.4 lbs./A Princep Caliber 90 (4 lbs. a.i./A) per calendar year. Do not apply more than twice per calendar year.

**Note:** Do not apply when fruit is present, or illegal residues may result.

**Filberts**

Apply 2.2-4.4 lbs./A Princep Caliber 90 in the fall or apply a split application of 2.2 lbs./A Princep Caliber 90 in the fall plus 2.2 lbs./A Princep Caliber 90 in the spring. Do not apply more than 4.4 lbs./A Princep Caliber 90 (4 lbs. a.i./A) per calendar year. Do not apply more than twice per calendar year.

*Precaution: If trees are planted on a hillside, excessive soil erosion may result from the elimination of weeds.*

**Note:** Do not apply when nuts are on the ground during the harvest period, or illegal residues may result.



## **Grapes**

Apply 2.2-4.4 lbs./A Princep Caliber 90 any time between harvest and early spring. Do not apply more than 4.4 lbs./A Princep Caliber 90 (4 lbs. a.i./A) per calendar year. Do not apply more than once per calendar year.

*Precaution: Do not use in vineyards established less than 3 years, or crop injury may occur.*

## **Grapefruit, Lemons, and Oranges**

**AZ (Lemons and Oranges only):** Apply a split application of 1.77 lbs./A Princep Caliber 90 in the spring plus 1.77 lbs./A Princep Caliber 90 in the fall. Do not apply more than 3.54 lbs./A Princep Caliber 90 (3.2 lbs. a.i./A) per calendar year. Do not apply more than 1.77 lbs./A Princep Caliber 90 (1.6 lbs. a.i./A) per application.

**CA (Grapefruit, Lemons, and Oranges):** Apply 2.2-4.4 lbs./A Princep Caliber 90 in a single application, or apply 2.2 lbs./A Princep Caliber 90 in the fall and 2.2 lbs./A Princep Caliber 90 in the spring. Do not apply more than 4.4 lbs./A Princep Caliber 90 (4 lbs. a.i./A) per calendar year. Do not apply more than twice per calendar year.

*Precaution: Do not use in the Imperial, Coachella, or Palo Verde valleys, or crop injury may occur.*

## **FL (Grapefruit and Oranges only):**

**Broadcast Applications:** Apply up to 4.4 lbs. of Princep Caliber 90/A per application to weed-free soil once during the spring and/or once during the fall to control weeds expected to emerge during these periods. Apply prior to emergence of weeds or if weeds have emerged, apply in tank mixture with a contact herbicide. Use caution to keep the treatment off the foliage, fruit, or trunk of citrus trees. Do not apply more than 4.4 lbs. Princep Caliber 90/A (4 lbs. a.i./A) per application. Do not apply more than 8.8 lbs. Princep Caliber 90/A (8 lbs. a.i./A) per calendar year.

**Banded Application for control of difficult species, such as balsamapple and spanishneedles, and partial control of honeyvine milkweed:** Apply no more than 8.8 lbs. of Princep Caliber 90 (8 lbs. a.i./A) or Princep Caliber 90 as a single application in the spring using a 50% band application. The amount of Princep Caliber 90 applied per acre of field must not exceed 4.4 lbs. (4 lbs a.i./A). Apply once in the spring growing season between January and April. Do not make a fall Princep Caliber 90 application if this treatment was used in the spring. When emerged weeds are present, apply Princep Caliber 90 in tank mixture with a recommended contact herbicide. Follow all directions, precautions, limitations, etc. on the tank mix product.

**TX (Grapefruit and Oranges only):** Apply 4.4 lbs./A Princep Caliber 90. Do not apply more than 4.4 lbs. of Princep Caliber 90/A (4 lbs. a.i./A) per calendar year. Do not apply more than twice per calendar year.

*Precautions (All areas): To avoid crop injury, (1) Do not use in nurseries. (2) Do not apply to bedded grapefruit, lemons, or oranges (except for FL grapefruit and oranges). (3) Do not apply to trees under stress from freeze damage for one year after the freeze. (4) Do not exceed 4.4 lbs./acre/year of Princep Caliber 90 on grove planted trees 1 year old or less, or crop injury may occur. **Note:** Dark-red grapefruit hybrids, e.g. "Star Ruby", have a higher risk of crop injury than non-dark-red types.*

### **Macadamia Nuts**

Apply 2.2-4.4 lbs. Princep Caliber 90 in 50 gals. of water per acre before harvest and just prior to weed emergence. Do not apply more than 4.4 lbs./A Princep Caliber 90 (4 lbs a.i./A) per calendar year. Do not apply more than once per calendar year.

**Note:** Do not apply when nuts are on the ground during the harvest period, as illegal residues may result.

### **Olives**

Apply 2.2-4.4 lbs./A Princep Caliber 90 following grove preparation in the fall. Repeat annually in midwinter. Do not apply more than 4.4 lbs./A Princep Caliber 90 (4 lbs. a.i.A) per calendar year. Do not apply more than once per calendar year.

### **Peaches, Plums, and Sweet Cherries**

Apply 1.77-4.4 lbs./A Princep Caliber 90. Apply in late fall to early spring prior to weed emergence. Do not apply more than 4.4 lbs./A Princep Caliber 90 (4 lbs. a.i./A) per calendar year. Do not apply more than once per calendar year.

*Precautions: To avoid crop injury, (1) Peaches: use only in AR, LA, MO, OK, TX, and states east of the Mississippi River. For CA, see specific directions in the Almonds, Peaches, and Nectarines (CA only) section. (2) Plums and sweet cherries: use only in MO and states east of the Mississippi River, except TN.*

### **Pecans**

Apply 2.2-4.4 lbs./A Princep Caliber 90 before weeds emerge in the spring. Do not apply more than 4.4 lbs./A Princep Caliber 90 (4 lbs. a.i.A) per calendar year. Do not apply more than once per calendar year.

*Precautions: To avoid crop injury, (1) Do not use west of the Pecos River in TX or in AZ, CA, or NM. (2) Do not make applications to transplanted trees that have been established less than 2 years in the grove.*

**Note:** Do not apply when nuts are on the ground, or illegal residues may result. Do not allow animals to graze treated areas.

### **Strawberries**

**OR and WA Only:** For control of chickweed, groundsel, mustard, and shepherdspurse, apply broadcast 1.1 lbs./A Princep Caliber 90. In fields where overhead irrigation is used to activate this product, apply after harvest at time of bed renovation. In fields where overhead irrigation is not available, apply during early October through November. Do not apply more than 1.1 lbs./A Princep Caliber 90 (1 lb. a.i./A) per calendar year. Do not apply more than once per calendar year.

*Precautions: To avoid crop injury, (1) Make only one application per growing season. (2) Do not apply within 4 months after transplanting.*

### **Walnuts**

Apply 2.2-4.4 lbs./A Princep Caliber 90. Leveling and furrowing operations after application will lessen effectiveness of weed control. Do not apply more than 4.4 lbs./A Princep Caliber 90 (4 lbs. a.i.A) per calendar year. Do not apply more than once per calendar year.

**Note:** Do not apply when nuts are on the ground, or illegal residues may result.

### **Tank Mixture with Bromacil 80W for Grapefruit and Oranges (FL Only)**

Use in grapefruit and oranges in FL for control of balsamapple, black nightshade, carpetweed, crabgrass, cudweed, dayweed, Florida pusley, horseweed, pepperweed, pigweed, poorjoe, ragweed, rattlebox, spanishneedles and sandbur, and for partial control of bermudagrass, bahiagrass, pangolagrass, paragrass, and torpedograss. Apply 4.4 lbs. of Princep Caliber 90 plus 3-4 lbs. of Bromacil 80W per acre beneath trees in a minimum of 40 gals. of water per acre before or soon after weed growth begins. Use caution to keep the spray off the foliage, fruit, or trunk of citrus trees. Temporary yellowing of citrus leaves may occur following treatment.

Follow use and precautionary directions on the Bromacil label.

*Precautions: To avoid crop injury, (1) Do not use in nurseries or where trees are under stress from freeze damage for one year after the freeze. (2) Do not use on soil with less than 1% organic matter or on poorly drained soil. (3) Do not treat trees planted in irrigation furrows. (4) Do not treat diseased trees, such as those with foot rot. (5) Do not use in groves interplanted with other trees or desirable plants, nor in home grapefruit or orange plantings, or in areas where roots of other valuable plants or trees may extend. (6) Treated areas may be planted to citrus trees one year after application. (7) Do not rotate to other crops within 2 years after application.*

**Note:** Apply only once per year and avoid contact with foliage and fruit with spray or mist, or illegal residues may result.

**Tank Mixture with Gramoxone Inteon®**

This tank mix is effective in the following fruit and nut crops for kill of existing vegetation and for residual control of the annual broadleaf and grass weeds claimed for this product applied alone. This combination is also effective for top kill and suppression of perennial weeds. In FL, this mixture may be applied in spring or fall to emerged weeds.

Use this tank mix on these crops:

almonds (CA only)  
apples  
avocados (CA and FL<sup>1</sup> only)  
cherries (sour and sweet<sup>4</sup>)  
filberts  
grapefruit (CA and TX only)  
grapes  
lemons (AZ and CA only)  
macadamia nuts

olives  
oranges<sup>2</sup>  
peaches<sup>3</sup>  
pears  
pecans  
plums<sup>4</sup>  
walnuts

Apply the rate given under the appropriate crop on this label plus the appropriate labeled rate of Gramoxone Inteon in 50-200 gals. (30-50 gals. for pecans) of water per acre to the orchard floor, avoiding contact with fruit, foliage, or stems. Add a nonionic surfactant, such as X- 77®, at 0.5 pt./100 gals. of spray. Apply when weeds are succulent and new growth is 1-6 inches tall. For mature woody weeds or difficult to control perennial weeds, re-treat or spot treat with Gramoxone Inteon if regrowth occurs.

Add this product to the spray tank first (refer to the **Mixing procedures** section of this label), then add Gramoxone Inteon, and add the surfactant last. Provide constant agitation during mixing and application to keep the mixture in suspension.

*Precautions: To avoid crop injury, (1) Apply the tank mix only once per year. (2) Use a shield for young trees or vines.*

Refer to the labels of both products for further directions, specific weeds controlled, and precautions and limitations on each crop.

<sup>1</sup>In avocados in FL, this tank mix also controls balsamapple vine, rattail amaranth, and at the higher specified rate of each herbicide, it suppresses coral vine.

<sup>2</sup>In oranges in FL, apply 4.4 lbs. of this product per acre per application during spring or fall. Do not exceed 8.8 lbs. of Princep Caliber 90 per calendar year.

<sup>3</sup>Limited to AR, CA, LA, MO, OK, TX, and states east of the Mississippi River. As specified, refer to the sections **Almonds, Peaches, and Nectarines (CA only) or Peaches, Plums, and Sweet Cherries** for rate of this product and other information.

<sup>4</sup>Limited to MO and states east of the Mississippi River, except TN.

**Tank Mixture with Roundup® or Touchdown® Brand Herbicides**

This tank mixture is effective in grape vineyards and in the following bearing or nonbearing tree crops for control of existing vegetation and for residual control of the annual broadleaf and grass weeds claimed for this product applied alone. This combination is also effective for partial control of perennial weeds contacted by the spray mixture during application.

Use this tank mixture on these crops:

- |   |                                 |
|---|---------------------------------|
| almonds** (CA only)                         | macadamia nuts**                |
| apples*                                     | oranges*** (AZ, CA, FL, and TX) |
| avocados* (CA and FL only)                  | peaches**** <sup>1</sup>        |
| cherries (sour and sweet**** <sup>2</sup> ) | pears*                          |
| filberts**                                  | pecans**                        |
| grapefruit*** (CA, FL, and TX)              | plums**** <sup>2</sup>          |
| grapes*                                     | walnuts**                       |
| lemons* (AZ and CA)                         |                                 |

Use the specified rate given elsewhere on this label for Princep Caliber 90 applied alone to the crop being treated. Add to the spray tank the specified labeled rate of a Roundup or Touchdown brand product per acre, depending on weeds present and their growth stage. Also add an agriculturally approved nonionic surfactant at 0.5% by volume of spray solution. Apply the mixture in 10-40 gals. of water per acre as a postemergence spray to the weeds at the appropriate weed growth stage given on the Roundup label.

Add Princep Caliber 90 to the spray tank first, then add the Roundup or Touchdown brand product. Provide constant agitation during mixing and application to keep the mixture in suspension. Refer to the **Application Procedures** section of this label for further directions.

*Precaution: To avoid crop injury, take extreme care to avoid contact of herbicide solution, spray, drift, or mist with foliage or green bark of trunk, branches, suckers, fruit, or other parts of trees or vines. Observe precautions on both the Princep Caliber 90 and Roundup or Touchdown labels for each crop involved.*

Always refer to the labels of both herbicides for further directions, specific weeds controlled, precautions, and limitations on each crop.

\*Allow a minimum of 14 days between last application and harvest.

\*\*Allow a minimum of 21 days between last application and harvest of these crops.

\*\*\*Allow a minimum of 1 day between last application and harvest of these crops.

\*\*\*\* Allow a minimum of 17 days between last application and harvest of these crops;

<sup>1</sup>Limited to AR, CA, LA, MO, OK, TX, and states east of the Mississippi River. For CA, see specific directions in the **Almonds, Peaches, and Nectarines (CA only)** section.

<sup>2</sup>Plums and sweet cherries: limited to MO and states east of the Mississippi River, except TN.

### **Tank Mixture with Solicam®**

For improved control of such weeds as clover, cutleaf eveningprimrose, dandelion, henbit, horseweed or marestail, lambsquarters, and puncturevine, apply Princep Caliber 90 in tank mixture with Solicam DF on these crops:

oranges  
grapefruit  
lemons

Apply 4.4 lbs./A of Princep Caliber 90 plus 4-5 lbs. of Solicam DF Herbicide (78.6% active ingredient) in 20-100 gals. of water per acre. Princep Caliber 90 + Solicam may be applied in tank mixture with Gramoxone Inteon or Roundup.

Follow the labeled directions and restrictions of use on labels of the herbicides used in mixtures with Princep Caliber 90.

*Precaution: Keep Princep Caliber 90 + Solicam mixtures from contacting foliage, fruits, and stems of citrus trees during spraying.*

### Tank Mixture with Surflan®

Use this tank mix in the following crops for preemergence control of all weeds claimed on both labels:

- |             |                 |
|-------------|-----------------|
| almonds     | lemons          |
| apples      | oranges         |
| avocados    | peaches         |
| caneberries | pears           |
| cherries    | pecans          |
| filberts    | plums           |
| grapefruit  | English walnuts |
| grapes      |                 |

Apply the Princep Caliber 90 rate given under the appropriate crop on this label plus 2.67-5.33 lbs. of Surflan 75W or 2-4 qts. of Surflan A.S. in 20-40 gals. of water per acre. Refer to the Surflan 75W or Surflan A.S. label for complete tank mix directions. Observe all precautions and limitations on the Princep Caliber 90 and Surflan labels.

### FIELD AND FORAGE CROPS

#### Corn (Field and Sweet)

Apply a maximum of 2.2 lbs. Princep Caliber 90/A (2.0 lbs. a.i./A) as a single preemergence application on soils that are not highly erodible or on highly erodible soils, as defined by the Natural Resources Conservation Service, if at least 30% of the soil is covered with plant residues. If a second treatment is required following an earlier herbicide application, the total simazine applied may not exceed 2.5 lbs. a.i./a per calendar year.

Apply a maximum of 1.77 lb. Princep Caliber 90/A (1.6 lbs. a.i./A) as a single preemergence application on highly erodible soils if <30% of the soil is covered with plant residues.

Pre-grazing/pre-harvest interval for field corn: 60 days.  
Pre-grazing/pre-harvest interval for sweet corn: 45 days..

Nitrogen solutions or complete fluid fertilizers may replace all or part of the water as a carrier in the spray. Determine the physical compatibility of this product with fertilizer before use. Refer to the General Information section of this label for a compatibility test. Do not apply after corn has emerged, as there is danger of liquid fertilizers causing crop injury.

**Preemergence:** Apply before weeds and corn emerge. Use the specified rate as stated above.

**Preplant:** Apply in the spring after plowing at the specified rate as stated above. Apply before, during, or after final seedbed preparation. If soil is tilled or worked after application, avoid deep incorporation. Best results will be obtained when this product is applied within 2 weeks before planting. Under dry weather conditions, preplant applications may give better weed control. If weeds develop, particularly under relatively dry conditions, a shallow cultivation will generally result in better weed control.

### **Winter Annual Broadleaf Control - Preemergence Fall Application**

For preemergence control of winter annual weeds, such as common chickweed, henbit, shepherds-purse, tansymustard, wild mustard, annual bluegrass, downy brome, and others, broadcast 1.1 lbs./A of Princep Caliber 90 after harvest of the preceding crop and prior to weed emergence on land to be planted to corn the following year. A tillage operation may precede the application. Do not apply to frozen ground. If Princep Caliber 90 is used in the fall corn weed control program, do not exceed 1.67 lbs. of Princep Caliber 90 preemergence in the spring.

*Precautions: (1) Do not apply more than 2.77 lbs./A Princep Caliber 90 to corn per calendar year. (2) Do not rotate to any crop except corn until the following year, or injury may occur. (3) After harvest, plow and thoroughly till the soil in fall or spring to minimize possible injury to spring-seeded rotational crops, regardless of the rate used. (4) Do not apply preplant incorporated in corn in the High Plains and Intermountain areas of the West (including central and western KS, western NE, western OK, and the Panhandle of TX) where rainfall is sparse and erratic or where irrigation is required. (5) In the High Plains and Intermountain areas of the West where rainfall is sparse and erratic or where irrigation is required, use this product to control weeds in corn only when corn is to follow corn or when a crop of untreated corn is to precede another rotational crop. (6) Injury may occur to soybeans planted in north-central and northwest IA, south-central and southwest MN, northeast NE, southeast SD, and other areas the year following application on soils having a calcareous surface layer. (7) Do not plant sugar beets, tobacco, vegetables (including dry beans), spring-seeded small grains, or small-seeded legumes and grasses the year after an application, or injury may occur.*

**Note:** Do not graze treated areas, or illegal residues may result.

### **Tank Mixtures on Corn**

**AAtrex®:** Use this product in a preplant or preemergence tank mixture with AAtrex Nine-O®, or AAtrex 4L for control of many annual weeds, including carpetweed, crabgrass, fall panicum, foxtail, lambsquarters, morningglory, pigweed, ragweed, and velvetleaf.



Apply at the rates given below. Use the 1:1 ratio for most weeds and the 2:1 ratio for expected heavy infestations of crabgrass and fall panicum.

| Soil Texture   | Broadcast Rate Per Acre |                |                    |                |
|--|-------------------------|----------------|--------------------|----------------|
|  | 1:1 Ratio               |                | 2:1 Ratio          |                |
|  | Princep Caliber 90      | AAtrex Nine-O* | Princep Caliber 90 | AAtrex Nine-O* |
| Sand, loamy sand, sandy loam   | 1.1 lbs.                | 1.1 lbs.       | 1.5 lbs.           | 0.75 lb.       |
| Loam, silt loam, silt, clay loam, sandy clay loam, silty clay loam, sandy clay, or silty clay with low organic matter  | 1.33 lbs.               | 1.33 lbs.      | 1.8 lbs.           | 0.9 lb.        |
| Loam, silt loam, silt, clay loam, sandy clay loam, silty clay loam, sandy clay, or silty clay with medium to high organic matter, and clay (including dark prairie soils of the Corn Belt) | 1.6 lbs.                | 1.6 lbs.       | 2.1 lbs.           | 1.05 lbs.      |

\*When using AAtrex 4L or AAtrex Nine-O, use equivalent atrazine rates. One qt. of AAtrex 4L equals 1.1 lb. of AAtrex Nine-O.

Refer to the AAtrex label for complete directions, and use 1.1 lb. of this product for each qt. of Princep 4L. Also refer to the AAtrex label and the **Corn** section of this label for precautions and limitations.

**Gramoxone Inteon:** Use in a tank mixture where corn will be planted directly in a cover crop, established sod, or previous crop residues. This combination controls existing vegetation and provides residual control of the annual broadleaf and grass weeds listed under the **General Information** section.

Add this product to the spray tank, mix thoroughly with water, and then add Gramoxone Inteon and a nonionic surfactant. Provide constant agitation during mixing and application to keep the mixture in suspension.

Apply up to 2.2 lbs. of this product plus the specified labeled rate of Gramoxone Inteon in 20-60 gals. of water per acre as a broadcast spray either before or after planting, but before corn emerges. Add a nonionic surfactant at the rate of 0.5 pt./100 gals. of spray volume.

For further information, see general information, caution and warning statements, precautions, and notes on the Princep Caliber 90 and the Gramoxone Inteon labels.

## **NURSERIES, CHRISTMAS TREE PLANTINGS, AND SHELTERBELTS**

### **Nurseries (see list below)**

Apply 2.2-3.3 lbs./A Princep Caliber 90 in at least 25 gals. of water per acre in fall or spring. Do not apply more than 3.3 lbs./A Princep Caliber 90 (3 lbs. a.i./A) per calendar year. Do not apply more than once per calendar year.

*Precaution: To avoid plant injury, do not apply for at least one year after transplanting.*

### **Christmas Tree Plantings and Shelterbelts**

Remove weed growth before application. Apply 2.2-4.4 lbs. Princep Caliber 90 in at least 25 gals. of water per acre after transplanting. Use the same rate for annual maintenance applications.

For quackgrass control, apply 4.4 lbs./A Princep Caliber 90 in the fall or apply a split application of 2.2 lbs./A Princep Caliber 90 in the fall plus 2.2 lbs./A Princep Caliber 90 in early spring, after quackgrass begins growth.

Do not apply more than 4.4 lbs./A Princep Caliber 90 (4 lbs. a.i./A) per calendar year. Do not apply more than twice per calendar year.

*Precautions: To avoid tree injury, (1) Do not use on seedbeds or cutting beds. (2) In CA, OR, and WA, do not apply to Christmas trees or shelterbelts sooner than one year after transplanting. In other areas, do not apply to Christmas trees or shelterbelt transplants less than 2 years of age. (3) Do not use until soil is firmly settled around roots. (4) Do not apply more than once a year, except as directed for quackgrass control.*

Apply to these species of trees and shrubs, as directed above:

**Conifers**

arborvitae  
 Austrian pine  
 Bishop pine\*  
 knobcone pine\*  
 lodgepole pine (shore pine)  
 Monterey pine\*  
 Mugho pine  
 red pine (Norway pine)  
 Scotch pine  
 white pine  
 blue spruce  
 Norway spruce  
 red spruce  
 white spruce  
 balsam fir  
 Douglas fir  
 Fraser fir  
 white fir  
 hemlock  
 juniper  
 red cedar  
 white cedar  
 yew (*Taxus* spp.)

**Deciduous Trees and Wood Ornamentals**

American elm  
 Siberian elm  
 barberry  
 boxelder  
 bush honeysuckle  
 caragana  
 cotoneaster  
 dogwood  
 eucalyptus  
 holly (*Ilex* spp.) (max. 3.3 lbs./A)  
 honey locust  
 Oregon grape (*Mahonia* spp.)  
*Pieris* spp. (max 3.3 lbs./A)  
 red oak  
 Russian olive  
 oleander\*  
 palm (max. 2.2 lbs./A)\*  
 bottle brush\*  
 carob\*

\*For CA only

**Pennant Magnum® Tank Mix:** Princep Caliber 90 may be tank mixed with Pennant Magnum Herbicide to control weeds in containerized, field, and liner\* grown ornamentals and commercial landscapes. See the Pennant Magnum label for ornamental species, weeds controlled with this tank mixture and for other information.

\*Plants transplanted normally in rows in a nursery or similar area for further growth prior to transplanting to final growing place.

**Surflan Tank Mix:** On Christmas tree plantings, use this tank mix for preemergence control of weeds listed on this label and the Surflan 75W (or Surflan A.S.) label. Use on field grown conifer species listed on the labels for each herbicide plus grand fir, alpine fir, Engelmann spruce, black spruce, Colorado blue spruce, Coulter pine, giant redwood, and Veitchi fir. Broadcast the mixture as a directed spray to the soil surface or as an overtop spray, using 2.2-4.4 lbs. of Princep Caliber 90 and 2.67-5.33 lbs. of Surflan 75W (or 2-4 qts. of Surflan A.S.). Apply in sufficient water per acre to uniformly treat the area. Follow overtop sprays with sprinkler irrigation to move the herbicide from

leaf surfaces to the soil. Remove weed growth before application. Mix weed residues, prunings, or trash into the soil, or remove them before treatment. Soil should be in good tilth and free of clods at time of application. Shallow cultivation (1-2 inches) after treatment will not reduce weed control. Observe all precautions and limitations on the Princep Caliber 90 and Surflan labels.

**Note:** Length of weed control may be reduced when continuous wet soil conditions follow herbicide application.

*Precautions: To avoid plant injury, (1) Do not use on seedbeds or on unrooted cuttings. (2) Do not use in greenhouses or other enclosed areas.*

**TURFGRASS FOR SOD (FL ONLY)**

**St. Augustinegrass, Bermudagrass, Centipedegrass, and Zoysiagrass**

Apply 2.2-4.4 lbs./A of Princep Caliber 90, according to soil texture as indicated below. This product must be watered in immediately after application if applied at a rate greater than 2 lbs. a.i./A (2.2 lbs./A of Princep Caliber 90).

|              |          |          |                                       |
|--------------|----------|----------|---------------------------------------|
| Muck or peat | 4.4 lbs. | Old beds | Within 2 days after lifting of sod    |
|              |          | New beds | 3-4 days after sprigging or plugging  |
| Sandy soil   | 2.2 lbs. | Old beds | Within 2 days after lifting of sod    |
|              |          | New beds | 7-10 days after sprigging or plugging |

If weeds regrow, apply an additional 2.2 lbs./A of Princep Caliber 90 on much or peat, or 1.1 lbs./A of Princep Caliber 90 on sandy soil.

*Precautions: To avoid crop injury, (1) Do not apply within 30 days prior to cutting or lifting. (2) Do not apply in combination with surfactants or other spray additives. (3) Use only on turfgrass reasonably free of infestations of insects, nematodes, and diseases. (4) On newly sprigged turfgrass, temporary slowing of growth may follow application. (5) Do not exceed 4.4 lbs. Princep Caliber 90 per acre (4 lbs. a.i./A per application). (6) Do not apply more than 2 applications per year. (7) Do not exceed 6.6 lbs. Princep Caliber 90 per acre (6 lbs. a.i./A) per calendar year.*

**Note:** Do not graze or feed turf clippings to animals or illegal residues may result.

## **TURFGRASSES FOR SOD (IN STATES EXCEPT FL)**

Apply 1.1.-2.2 lbs./A of Princep Caliber 90.

Do not apply to established beds within 2 days after lifting of sod. Do not apply to new beds before 7-10 days after sprigging or plugging.

Do not apply more than 2 lbs. a.i./A (2.2 lbs./A of Princep Caliber 90) per application and not more than two applications per calendar year. Do not exceed 3.3 lbs./A Princep Caliber 90 (3 lbs. a.i./A) per calendar year.

*Precautions: On newly sprigged turfgrass, hybrid bermudagrass, nondormant bermudagrass or nondormant zoysiagrass, temporary slowing of growth and yellowing may occur following application. To avoid turf injury, (1) use only on turfgrass reasonably free of infestations of insects, nematodes, and diseases. (2) Do not use north of NC (except in the VA Coastal Plains) or on soils with a pH above 7.8. (3) Do not use on muck or alkaline soils. (3) Do not apply over the rooting area of trees or ornamentals not listed on this label. (5) Do not seed or overseed with desirable turfgrass within 4 months before or 6 months after treatment. (6) Do not apply this product to newly seeded grasses until they have overwintered and have a well-developed rhizome system. (7) Do not exceed 2.2 lbs./A of Princep Caliber 90 within 12 months of seeding grasses.*

## **TURFGRASS FOR FAIRWAYS, LAWNS, AND SIMILAR AREAS**

### **Bermudagrass, Centipedegrass, St. Augustinegrass, an Zoysiagrass**

Apply Princep Caliber 90 after September 1 (after October 1 for annual bluegrass) before emergence of winter annual weeds. Fall applications of Princep Caliber 90 will control annual bluegrass, burclover, lawn burweed, common and mouseear chickweed, corn speedwell, henbit, hop clover, spurweed, and parsley-piert. Princep Caliber 90 will also control these weeds soon after emergence. For control of summer annual weeds listed in the **General Information** section of this label, apply Princep Caliber 90 in late winter before the weeds emerge. Apply in a minimum of 15 gals. of water per acre.

Irrigate with ½ inch of water if rainfall does not occur within 10 days after preemergence treatment.

Where annual bluegrass is the major weed, use 1.1 lbs. of Princep Caliber 90 per acre (0.4 oz. per 1,000 sq. ft.). Use 1.1-2.2 lbs./A of Princep Caliber 90 (0.4-0.8 oz. per 1,000 sq. ft.) for control of other weeds. However, do not exceed 1.1 lbs./A of Princep Caliber 90 per treatment on newly sprigged turfgrass or on hybrid bermudagrass.

For control of summer annuals, which emerge after the initial application, apply an additional 1.1 lbs./A of Princep Caliber 90 at least 30 days after the initial application, but not after June 1. However, do not make more than 2 applications per calendar year.

*Precautions: On newly sprigged turfgrass, hybrid bermudagrass, nondormant bermudagrass or nondormant zoysiagrass, temporary slowing of growth and yellowing may occur following application. To avoid turf injury, (1) use only on turfgrass reasonably free of infestations of insects, nematodes, and diseases. (2) Do not use on golf greens. (3) Do not use north of NC (except in the VA Coastal Plains) or on soils with a pH above 7.8. (4) Do not use on much or alkaline soils. (5) Do not apply over the rooting area of trees or ornamentals not listed on this label. (6) Do not seed or overseed with desirable turfgrass within 4 months before or 6 months after treatment. (7) Do not apply this product to newly seeded grasses until they have overwintered and have a well-developed rhizome system. (8) Do not exceed 2.2 lbs./A of Princep Caliber 90 within 12 months of seeding grasses. (9) Do not exceed 2 lbs a.i./A (2.2 lbs./A Princep Caliber 90) per application. (10) Do not exceed 3.3 lbs./A Princep Caliber 90 (3 lbs. a.i./A) per calendar year. (11) Maximum of 2 applications per year.*

Note: Do not graze or feed turf clippings to animals, or illegal residues may result.

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## **STORAGE AND DISPOSAL**

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

### **Pesticide Storage**

Store in a dry place.

### **Pesticide Disposal**

Pesticide wastes may be toxic. Improper disposal of unused pesticide, spray mixture, or rinse water is a violation of Federal law. If these wastes cannot be used according to label instructions, contact your State Pesticide or Environmental Control Agency, or the Hazardous Waste representative at the nearest EPA Regional Office for guidance in proper disposal methods.

### **Pesticide Disposal Container Handling**

Non-refillable container. Do not reuse or refill this container. Completely empty bag into application equipment. Then offer for recycling if available or dispose of empty bag in a sanitary landfill, or by incineration, or, if allowed by state and local authorities, by burning. If burned, stay out of smoke from burning bags.

For minor spills, leaks, etc., follow all precautions indicated on this label and clean up immediately. Take special care to avoid contamination of equipment and facilities

during cleanup procedures and disposal of wastes. In the event of a major spill, fire, or other emergency, call 1-800-888-8372, day or night.

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| For non-emergency (e.g., current product information), call<br>Syngenta Crop Protection at 1-800-334-9481. |
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Manufactured for:  
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