

(Front Cover)

Prime +®

A Plant Growth Regulator for  
Control of Tobacco Suckers

One Gallon  
U. S. Standard Measure

or

One Quart  
U.S. Standard Measure

Active Ingredient:

- 2-chloro-N-[2,6-dinitro-4-(trifluoromethyl)phenyl]-N-ethyl-6-fluorobenzenemethanamine

15%

Inert Ingredients:

85%

Total:

100%

Prime + contains 1.2 lbs. active ingredient per gallon.

EPA Reg. No. 100-640

**KEEP OUT OF REACH OF CHILDREN.**

**DANGER/PELIGRO**

Si usted no entiende la etiqueta, busque a alguien para que se la explique a usted en detalle. (If you do not understand the label, find someone to explain it to you in detail.)

See additional precautionary statements and directions for use inside booklet.

NCP 73L9 (DRAFT) (1 Gal.) (EPA Est. 100-LA-1)

NCP 73L11 (DRAFT) (1 Gal.) (EPA Est. 67517-MO-1)

NCP 73L10 (DRAFT) (1 Qt.)

**ACCEPTED**

JUN 22 1997

Under the Federal Insecticide, Fungicide, and Rodenticide Act, as amended, for the pesticide registered under EPA Reg. No. 100-640

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REC'D LIA/OPP/DPD1

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**DIRECTIONS FOR USE AND CONDITIONS OF SALE AND WARRANTY**

**IMPORTANT:** Read the entire **Directions for Use** and the **Conditions of Sale and Warranty** before using this product. If terms are not acceptable, return the unopened product container at once.

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**Conditions of Sale and Warranty**

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The **Directions for Use** of this product reflect the opinion of experts based on field use and tests. The directions are believed to be reliable and should be followed carefully. However, it is impossible to eliminate all risks inherently associated with use of this product. Crop injury, ineffectiveness, or other unintended consequences may result because of such factors as weather conditions, presence of other materials, or the manner of use or application all of which are beyond the control of Novartis Crop Protection, Inc. or the Seller. All such risks shall be assumed by the Buyer.

Novartis warrants that this product conforms to the chemical description on the label and is reasonably fit for the purposes referred to in the **Directions for Use** subject to the inherent risks referred to above. **Novartis makes no other express or implied warranty of Fitness or Merchantability or any other express or implied warranty. In no case shall Novartis or the Seller be liable for consequential, special, or indirect damages resulting from the use or handling of this product.** Novartis and the Seller offer this product, and the Buyer and user accept it, subject to the foregoing **Conditions of Sale and Warranty**, which may be varied only by agreement in writing signed by a duly authorized representative of Novartis.

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**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.

**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
- Chemical-resistant gloves, such as barrier laminate or viton
- Chemical-resistant footwear plus socks
- Protective eyewear
- Chemical-resistant headgear for overhead exposure

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

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

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**General Information**

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Prime + is a plant growth regulator for the control of sucker growth on flue-cured, burley, dark, Maryland, and cigar tobacco.

One application of Prime + will provide full season control of excessive sucker development in tobacco. Read this label carefully and observe all directions and precautions.

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**Mixing Instructions**

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Mix 1 gal. of Prime + in 49 gals. of water or 2.5 fl. oz. of Prime + per one gal. of water. Provide sufficient agitation during mixing and application to maintain a uniform mixture.

**Note:** Do not mix Prime + with insecticides or fungicides.

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**Application Instructions**

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**Time of Application**

Apply Prime + when most tobacco plants are in the elongated button to early flower stage, either before or after topping. If Prime + is applied after topping, apply within 24 hours of topping. During topping, remove all suckers one inch or longer from all plants. (See notes listed below.)

**Precision Hand Application**

Mix 1 gal. of Prime + in 49 gals. of water and apply as a coarse spray or drench to the top of the tobacco stalk using a hand-held drop line, or mix 2.5 fl. oz. of Prime + per gal. of water when using the jug method or backpack sprayer. Apply only once per plant per season. Apply the spray mixture at a rate sufficient to run down the stalk contacting each leaf axil and just reach the ground line. Excessive spray volume may result in carryover injury to rotational crops. Spray volume per plant will generally be  $\frac{1}{3}$ - $\frac{2}{3}$  fl. oz. depending on plant height. Do not exceed 30 gals. spray volume per acre when using hand application methods. (See notes listed below.)

**Application with Powered Spray Equipment (3 nozzles per row)**

Mix 1 gal. of Prime + in 49 gals. of water and apply at a rate of 30-50 gals. spray volume per acre. Use the high spray volume in tall types of tobacco, such as flue-cured, burley, Maryland, and cigar. Use the low spray volume only in short types of tobacco, such as dark. **Apply only**

once per season. **Avoid application to plants treated by precision hand application method.** Spray volume should be sufficient to run down the stalk, contacting each leaf axil and just reach the ground line. **Excessive spray volume beyond the point of runoff to the soil may result in carryover injury to rotational crops.** (See notes listed below.)

Apply Prime + as a coarse spray directed downward to the top of the tobacco stalk. This is best accomplished with 3 full cone nozzles per row; one nozzle directed downward over the center of the row and one 7-9 inches to each side of the center, directed at the top of the stalk. Maintain nozzles at a height of 12-16 inches above the top of the stalk during application. Maintain boom pressure at 20-25 psi, not exceeding 30 psi.

**Sequential Application with Maleic Hydrazide**

**- Prior to Use of Maleic Hydrazide**

Mix 2 qts. of Prime + in 49.5 gals. of water and apply either by **Precision Hand Application** or **Application with Powered Spray Equipment** as described in those sections of this label. Timing of Prime + should be during the elongated button to early flower stage of tobacco.

Approximately one week after the Prime + application, apply maleic hydrazide, according to the directions, precautions, and restrictions on that label.

**After Use of Maleic Hydrazide**

For extended control of tobacco suckers, particularly during late tobacco harvests in FL, GA, NC, SC, and VA.

First, apply the regular schedule of contacts. Follow with the labeled rate of maleic hydrazide in accordance with its label. Follow with 2 qts. of Prime + in sufficient water to total 50 gals. to treat one acre 3-4 weeks after applying maleic hydrazide, depending on the development of suckers. To increase the effectiveness of Prime +, add 0.25% of X-77® (1 pt./50 gals.) to the spray solution.

Apply Prime + as a coarse spray using powered spray equipment (3 nozzles per row) at least 7 days before the next leaf harvest. The spray volume should be sufficient to run down the stalk contacting each leaf axil where suckers are present. Refer to the **Application with Powered Spray Equipment** section for specific instructions.

**Notes:** (1) Apply Prime + only once per tobacco season. (2) Prime + will not control large suckers. All suckers one inch or longer on all tobacco plants must be removed before application of Prime +. (3) Follow all precautions, notes, and other instructions on this label.

### Tank Mix with Maleic Hydrazide

Mix 2 qts. of Prime + with one-half to full rate of maleic hydrazide in sufficient water to total 50 gals. and apply at the recommended time for application of maleic hydrazide. Apply the mixture as a coarse spray at a volume of 50 gals./A with a boom pressure maintained at 20-25 psi by **Powered Spray Equipment** as described in that section of this label. For best results, follow precautions and restrictions on the Prime + and maleic hydrazide labels.

Application sequence: (1) Apply contact material according to its label. (2) Apply the tank mixture of Prime + and maleic hydrazide at or near the time suggested for application of maleic hydrazide on its label. (3) Make only one application of the tank mixture of Prime + plus maleic hydrazide per tobacco crop.

### - Notes

1. Timing is important; applications should be made at timing described above so that number and size of suckers will be small. Applications made before the elongated button stage of growth may result in chemical topping or distortion of leaves that were too immature at time of application. Spraying too late may result in poor sucker control.
2. Prime + will not control large suckers. All suckers one inch or longer on all plants must be removed before application of Prime +. Suckers that escape treatment should be removed by hand about 10-14 days after application.
3. Where a contact (fatty alcohol) is commonly used to control early suckers and provide a more uniform crop, the normal sequence would be: (a) apply contact material according to its label, and (b) about 5 days after application of contact material, apply Prime +. Timing of Prime + application should be during the elongated button to early flower stage.
4. Where a contact (fatty alcohol) is not used and a wide range of flowering exists, early flowering plants should be topped and suckers removed by hand. Then, when most plants are in the elongated button to early flower stage, remove all suckers one inch or longer, and apply Prime +. If Prime + is applied using precision hand application, early flowering plants can be topped and treated selectively; later flowering plants can be topped and treated as they reach the proper treatment stage; and a contact may not be needed.
5. For proper sucker control, Prime + must contact the small suckers on the axil where the leaf and stalk connect. Prime + will not control suckers on plants that are leaning at time of application.

Applications with powered spray equipment during windy periods are not recommended. High wind will disrupt the spray pattern of nozzles on boom sprayers and turn leaves causing improper contact and flow of the spray solution, resulting in poor sucker control. Application to wet plants or drought-stressed plants may result in poor sucker control.

- 6. Carefully follow the use rates and spray volume recommended, and spray field uniformly. Volume should be sufficient to run down the stalk, contact each leaf axil, and just reach the ground line.
- 7. Rain occurring within 2 hours after spraying may reduce effectiveness.

*Precautions: (1) To avoid illegal residues and possible injury to crops planted in the fall or following spring, do not apply excessive spray volume to the point of runoff onto the soil. Prime + residues in the soil may interact with dinitroaniline herbicides, such as Balan®, Basalin®, Paarlant®, Prowl®, or Treflan®, to increase early season crop stunting. Thorough disking and deep tillage in the fall are recommended where excessive amounts of Prime + may have reached the soil. (2) When tobacco is in a state of very rapid, succulent growth due to high nitrogen and rainfall, Prime + may cause injury. Under these conditions, use only the precision hand application method and avoid contacting leaves with the spray solution.*

**Storage and Disposal**

**Pesticide Disposal**

Do not contaminate water, food, or feed by storage or disposal. Open dumping is prohibited. Wastes resulting from the use of this product are acutely hazardous. Improper disposal of unused pesticide, spray mixture, or rinsate that cannot be used according to label instructions must be disposed of according to federal, state, or local procedures. For guidance in proper disposal methods, contact your State Pesticide or Environmental Control Agency, or the Hazardous Waste representative at the nearest EPA Regional Office.

**Container Disposal**

Do not reuse empty container. Triple rinse (or equivalent) and offer for recycling or reconditioning, or puncture and dispose of in a sanitary landfill, or by incineration, or by open burning, if allowed by state and local authorities. If burned, keep out of smoke.

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.

**Store at temperatures above 32°F.**

**Precautionary Statements**

**Hazards to Humans and Domestic Animals**

**DANGER/PELIGRO**

Corrosive. Causes irreversible eye damage. Prolonged or frequently repeated skin contact may cause allergic reactions in some individuals. Avoid contact with eyes, skin, or clothing. Harmful if swallowed, inhaled, or absorbed through the skin. Avoid breathing spray mist.

**First Aid:** In case of contact with the eyes, immediately flush with plenty of water and get medical attention. In case of contact with skin, wash immediately with soap and water. If swallowed, drink plenty of water. Do not induce vomiting. Avoid alcohol. Call a physician immediately. In case of inhalation exposure, move from the contaminated area.

**Note to Physician:** There is no specific antidote for Prime +. Lavage stomach. Give a saline laxative or slurry of activated carbon in water and supportive therapy.

**Personal Protective Equipment**

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

**Applicators and other handlers must wear:**

- Coveralls over short-sleeved shirt and short pants
- Chemical-resistant gloves, such as barrier laminate or viton
- Chemical-resistant footwear plus socks
- Protective eyewear
- Chemical-resistant headgear for overhead exposure
- Chemical-resistant apron, when cleaning equipment, mixing, or loading

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, use detergent and hot water. Keep and wash PPE separately from other laundry.

### **Engineering Control Statements**

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

### **User Safety Recommendations**

#### **Users should:**

- Wash hands before eating, drinking, chewing gum, using tobacco, or using the toilet.
- Remove clothing immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.

### **Environmental Hazards**

This product is toxic to fish. Do not apply directly to water, to areas where surface water is present, or to intertidal areas below the mean high water mark. Do not contaminate water by disposal of equipment wash waters.

Prime +® trademark of Novartis  
U.S. Patent No. 4,169,721

Balan®, Paarlán®, and Treflan® trademarks of DowElanco

Basalin® trademark of BASF/Wyandotte Corporation

Prowl® trademark of American Cyanamid

X-77® trademark of Loveland Industries, Inc.

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Novartis Crop Protection, Inc.  
Greensboro, North Carolina 27419

NCP 73L9 (DRAFT) (1 Gal.) (EPA Est. 100-LA-1)

NCP 73L11 (DRAFT) (1 Gal.) (EPA Est. 67517-MO-1)

NCP 73L10 (DRAFT) (1 Qt.)

- Revised August 17, 1983
- Revised February 3, 1984
- Revised December 8, 1984
- Revised September 4, 1985
- Revised May 12, 1987
- Revised November 20, 1989
- Revised April 25, 1991
- Revised January 17, 1992
- Revised September 2, 1993
- Revised September 8, 1993
- Revised February 10, 1995
- Revised April 16, 1997

[QUARK/PRIME +/N-PRIME + BKLT] - ccg - 4/17/97

(Back Cover)

Prime +®

A Plant Growth Regulator for  
Control of Tobacco Suckers

Active Ingredient:

2-chloro-*N*-[2,6-dinitro-4-(trifluoromethyl)phenyl]-*N*-ethyl-  
6-fluorobenzenemethanamine .....15%

Inert Ingredients: .....85%

Total: .....100%

Prime + contains 1.2 lbs. active ingredient per gallon.

- See directions for use in attached booklet.

**AGRICULTURAL USE REQUIREMENTS**

Use this product only in accordance with its labeling and with the Worker Protection Standard, 40 CFR part 170. Refer to supplemental labeling under "Agricultural Use Requirements" in the Directions for Use section for information about this standard.

EPA Reg. No. 100-640

**KEEP OUT OF REACH OF CHILDREN.**

**DANGER/PELIGRO**

Si usted no entiende la etiqueta, busque a alguien para que se la explique a usted en detalle. (If you do not understand the label, find someone to explain it to you in detail.)

One Gallon  
U.S. Standard Measure

or

One Quart  
U.S. Standard Measure

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**STORE AT TEMPERATURES ABOVE 32°F.**

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