

# Aptert<sup>TM</sup>

## PGR WDG

Contains prohexadione calcium, the active ingredient used in Apogee<sup>®</sup>.

For use in apple, grass grown for seed, peanut, pear, and sweet cherry.

ACTIVE INGREDIENT:	(% by weight)
prohexadione calcium: [calcium 3-oxido-5-oxo-4-propionylcyclohex-3-enecarboxylate] .....	27.5%
OTHER INGREDIENTS: .....	72.5%
TOTAL .....	100.0%

Equivalent to 0.275 pound of active ingredient per pound of product.

EPA Reg. No.: 93930-95

### KEEP OUT OF REACH OF CHILDREN CAUTION

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 below for additional Precautionary Statements.

FIRST AID	
If in eyes:	<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.</li><li>• Call a poison control center or doctor for treatment advice.</li></ul>
If on skin or clothing:	<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>
HOT LINE NUMBER	
Have the product container or label with you when calling a poison control center or doctor (1-800-222-1222), or going for treatment. You may also contact SafetyCall at 1-984-465-4791 for emergency medical treatment information.	

**For Chemical Emergency: Spill, Leak, Fire, Exposure, or Accident,  
Call CHEMTREC Day or Night Within USA and Canada:  
1-800-424-9300 or +1 703-527-3887 (collect calls accepted)**

Aptert<sup>TM</sup> PGR WDG is not manufactured, or distributed by BASF Corporation, seller of Apogee<sup>®</sup> plant growth regulator.





## RELEASE HEIGHT - Aircraft

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

## SHIELDED SPRAYERS

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

## ORCHARD AIRBLAST APPLICATIONS

Sprays should be directed into the canopy. User should turn off outward pointing nozzles at row ends and when spraying outer row.

## TEMPERATURE AND HUMIDITY

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

## TEMPERATURE INVERSIONS

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

## WIND

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

### Apple

**Apter PGR WDG** reduces vegetative growth in apple orchards allowing a balance between canopy development and fruit production. **Apter PGR WDG** provides many beneficial effects in apples including: reduced need for summer and dormant pruning, improved light penetration into the tree canopy, improved color of red varieties because of better light penetration into the canopy, and reduced incidence and severity of fire blight of shoots (shoot blight). **Apter PGR WDG** has been associated with an increase in fruit cracking on apple varieties known to be prone to cracking (such as Empire and Stayman).

### Mode of Action

**Apter PGR WDG** acts within apple trees to inhibit the biosynthesis of gibberellin, which is the natural plant hormone that regulates cell elongation. Inhibition of gibberellins results in reduced shoot growth. Vegetative growth suppression with **Apter PGR WDG** typically lasts for 2 to 5 weeks per application during the current growing season. **Apter PGR WDG** does not affect vegetative growth the following year.

### Gibberellic Acids

When gibberellic acid sprays, such as **ProVide® Plant Growth Regulator**, are applied in the same season as **Apter PGR WDG** to reduce cracking or reduce russetting, a loss in efficacy can occur in the **Apter PGR WDG** and/or the gibberellin spray.

## Thinning

**Apter PGR WDG** application can cause a tree to retain more fruit (refer to **Table 2** for instructions to reduce June drop). As a result, thinning programs may need adjustment.

## Fire Blight of Shoots (Shoot Blight)

Fire blight management is not registered for use in California on apple.

Controlling vegetative growth with **Apter PGR WDG** as instructed in **Table 3** will reduce the incidence and severity of fire blight infection (*Erwinia amylovora*) of shoots and leaves. **Apter PGR WDG** does not have direct antibiotic activity against the fire blight bacteria (*Erwinia amylovora*), but **Apter PGR WDG** can decrease host susceptibility. **Apter PGR WDG** applications are not effective for suppression of blossom blight. For maximum reduction in fire blight susceptibility, apply **Apter PGR WDG** at least 10 days before the occurrence of weather conditions favorable for shoot and leaf infections. **Apter PGR WDG** reduces the susceptibility of apple shoot tips to fire blight. Apply **Apter PGR WDG** as one component of a comprehensive IPM strategy for control of fire blight. This decrease in susceptibility will not become effective until about 10 days after application.

## Tree Row Volume (TRV)

Using **Apter PGR WDG** as part of a management program significantly reduces the tree row volume. Spray guides typically specify using the tree row volume to determine the correct pesticide application rates. Growers are advised to contact their local cooperative extension service or consultant for additional information regarding tree row volume.

## Application Instructions

Apply **Apter PGR WDG** to actively growing trees with ground equipment at rates and stages listed in **Tables 1 - 4**. **Apter PGR WDG** has been associated with an increase in fruit cracking on apple varieties known to be prone to cracking (such as Empire and Stayman).

## Spray Coverage

Because **Apter PGR WDG** is absorbed by the leaves, thorough spray coverage of the tree foliage is necessary for adequate uptake. Direct the spray to the portion of the tree where growth control is desired. To achieve thorough coverage, use sufficient water, proper spray pressure, nozzles, nozzle spacing, spray volume per acre, and tractor speed. Consult the spray nozzle and accessory guide for information pertaining to proper equipment calibration.

## Timing

For vegetative growth control, make the first **Apter PGR WDG** application in the spring when trees have 1 to 3 inches of new shoot growth. **Correct timing of application is critical to success.** An early first application (i.e., 1 to 2 inches of shoot growth) is more effective than a later application (i.e., 6 to 8 inches of shoot growth). If additional vegetative growth control is needed, make a sequential application before or immediately after the shoots show signs of regrowth, typically 1 to 4 weeks after the first application. Repeat applications as needed. Refer to **Tables 1 - 3** for application rates and timings.

## Number of Applications

The number of applications will vary depending on the timing of the first application, tree vigor, fruit load, pruning, variety, rootstock and/or the management history of the orchard. For apple orchards in locations with long growing seasons or



**Table 1. Application Rates for Vegetative Growth Control in Apples**

Application Timing	Apter PGR WDG plant growth regulator Rate per 100 gallons of Dilute Spray* (ozs)	Apter PGR WDG Rate per acre** (ozs)
<b>Medium to high vigor trees</b> <ul style="list-style-type: none"> <li>Apply at 1 to 3 inches of new shoot growth.</li> <li>For best results, make subsequent applications at 1 to 4 week intervals and before or immediately after the shoots show signs of regrowth.</li> </ul>	6 to 12 (0.10 - 0.21 lb ai)	18 to 36 (0.31 - 0.62 lb ai)
<b>Low vigor trees</b> <ul style="list-style-type: none"> <li>Apply at 1 to 3 inches of new shoot growth.</li> <li>For best results, make subsequent applications at 1 to 4 week intervals and before or immediately after the shoots show signs of regrowth.</li> </ul>	3 to 8 (0.05 - 0.14 lb ai)	9 to 24 (0.16 - 0.41 lb ai)
<b>Long growing season</b> <ul style="list-style-type: none"> <li>Apply at 1 to 3 inches of new shoot growth.</li> <li>Make second and third applications at 7 to 14 day intervals.</li> <li>Make subsequent applications as needed at 10 to 14 day intervals.</li> </ul>	3 to 8 (0.05 - 0.14 lb ai)	9 to 24 (0.16 - 0.41 lb ai)
*Refer to the <b>Application Instructions</b> section for rate calculations. **Based on 300 gallons of dilute spray per acre.		

**Table 2. Application Rates for Special Cases in Apples**

Application Timing	Apter PGR WDG Rate per 100 gallons of Dilute Spray* (ozs)	Apter PGR WDG Rate per acre** (ozs)
<b>To decrease June drop on trees with light bloom</b> <ul style="list-style-type: none"> <li>Apply at 1 to 3 inches of new shoot growth.</li> </ul>	10 to 12 (0.17 - 0.21 lb ai)	30 to 36 (0.52 - 0.62 lb ai)
<b>To shape the canopy</b> <ul style="list-style-type: none"> <li>Direct the spray to the portion of the tree where growth control is desired.</li> <li>Apply at 1 to 3 inches of new shoot growth.</li> </ul>	6 to 12 (0.10 - 0.21 lb ai)	Not applicable
*Refer to the <b>Application Instructions</b> section for rate calculations. **Based on 300 gallons of dilute spray per acre.		

**Table 3. Application Rates for Fire Blight Infections of Shoots (Shoot Blight) for Susceptible Apple Varieties**

Fire blight management is not registered for use in California on apple.

Application Timing	Apter PGR WDG plant growth regulator Rate per 100 gallons of Dilute Spray* (ozs)	Apter PGR WDG Rate per acre** (ozs)
<b>To reduce fire blight infections of shoot by decreasing vegetative growth</b> <ul style="list-style-type: none"> <li>Apply at 1 to 3 inches of new shoot growth.</li> <li>Make a second application if new shoot growth occurs.</li> </ul>	6 to 18 (0.10 - 0.21 lb ai)	18 to 36 (0.31 - 0.62 lb ai)
*Refer to the <b>Application Instructions</b> section for rate calculations. **Based on 300 gallons of dilute spray per acre.		

**Table 4. Application Rates for Vegetative Growth Control of Apples in Idaho, Oregon, and Washington**

Apple Tree Size	Apter PGR WDG Rate* (ozs/A)	Application Timing
<b>Small trees</b> • 8 to 10 feet tall on dwarf rootstocks.	6 to 12 (0.10 - 0.21 lb ai)	Apply at 1 to 3 inches of new terminal shoot growth. For best results, make subsequent applications at 1-to-4-week intervals and when shoots show signs of regrowth. Monitor apple trees clearly for vigor. High vigor trees may require more frequent applications through the growing season.
<b>Medium trees</b> • 10 to 14 feet tall on semi-dwarf rootstocks.	6 to 18 (0.10 - 0.31 lb ai)	
<b>Large trees</b> • Trees taller than 14 feet on standard non-dwarf rootstocks.	18 to 24 (0.31 - 0.41 lb ai)	
*Spray volumes must be a minimum of 100 gallons per acre and increase as necessary to achieve thorough canopy coverage.		

**Precaution**

- Rainfast period - Apter PGR WDG is rainfast 8 hours after application.

**Restrictions**

- DO NOT apply more than 36 ozs/A (0.62 lb ai) of Apter PGR WDG per application.
- Maximum annual use rate - DO NOT apply more than 99 ozs/A (1.7 lbs ai) of Apter PGR WDG per year.
- DO NOT apply more than 48 ozs/A (0.83 lb ai) of Apter PGR WDG within any 21-day interval.
- Preharvest Interval (PHI) - DO NOT apply within 45 days before harvest.
- DO NOT make more than 16 applications per year of Apter PGR WDG at reduced application rates.
- Retreatment Interval: 7 days
- Restricted-Entry Interval (REI) - 12 hours
- DO NOT apply to crops that show injury (leaf phytotoxicity) produced by prior pesticide applications, because this injury can be enhanced or prolonged. Refer to the Additives and Tank Mixing Information section for additional tank mixing instructions and precautions.
- DO NOT apply this product through any type of irrigation system.
- Aerial application is not registered for use in California.

**Grass Grown for Seed\***

\*NOT FOR USE IN CALIFORNIA

Apter PGR WDG is a production management tool for producers of grass grown for seed including perennial ryegrass, Kentucky bluegrass, fine, and tall fescue. Apter PGR WDG reduces vegetative growth (shorter internode length), which reduces the potential for lodging. Reduced lodging can lead to improved pollination, increased seed set, and improved harvest efficiency.

Apter PGR WDG does not affect vegetative growth the following year.

**Mode of Action**

Apter PGR WDG acts within the grass plant to inhibit the biosynthesis of gibberellin resulting in a decrease in cell elongation and a reduction in vegetative growth. The performance of Apter PGR WDG can be affected by many factors including: crop growth stage, environmental conditions, plant vigor, moisture availability, fertility level, and cultural practices that affect crop vigor.

**Application Instructions**

Apply Apter PGR WDG to actively growing grass plants according to application rates and timing instructions in Table 5.

**Spray Coverage**

Apter PGR WDG is a systemic growth regulator and must be absorbed into the leaves to be effective. Use enough volume of spray to thoroughly wet the leaves without runoff. Apter PGR WDG is rainfast within 1 hour of application. Apter PGR WDG growth regulator effects DO NOT occur by soil uptake.

**Suppression of Annual Bluegrass in Idaho, Oregon, Utah, and Washington**

In the flowering stage, thoroughly spray annual bluegrass with Apter PGR WDG. Less suppression will result if the annual bluegrass has not reached the flowering stage when sprayed. Some annual bluegrass biotypes may not be affected by the use of Apter PGR WDG. Perennial biotypes of annual bluegrass are not affected by the use of Apter PGR WDG.

**Vegetative Growth Suppression in Kentucky Bluegrass**

Make a single application per year of 14 to 29 ozs/A (0.241 - 0.498 lb ai) of Apter PGR WDG from flag leaf emergence up to early heading stage of growth (see Table 5).

**Aerial and Broadcast Ground Application Water volume.** Use a minimum of 10 gallons of spray solution per broadcast acre.

**Additives Adjuvant**

For consistent performance on grass grown for seed, add a commercial spray adjuvant, preferably a non-ionic surfactant.

**Nitrogen Source**

A nitrogen source, such as one quart per acre of 32% urea ammonium nitrate (UAN) or one pound per acre of ammonium sulfate (AMS), can also improve performance. Use high quality spray grade AMS to avoid plugging nozzles.

**Table 5. Application Rates for Vegetative Growth Control in Grass Grown for Seed**

Application Timing	Apter PGR WDG Rate (ozs/A)
<b>Single application</b> • Apply from flag leaf emergence up to early heading growth stage.	14 to 29 (0.241 - 0.498 lb ai)
<b>Split applications</b> • Apply from flag leaf emergence up to early heading stage of growth. • Make a second application 7 to 10 days later when new growth occurs.	7 to 14 (0.12 - 0.241 lb ai)



### Precaution

- Rainfast period - Apter PGR WDG is rainfast within 1 hour of application.

### Restrictions

- DO NOT apply more than 29 ozs/A (0.5 lbs ai) of Apter PGR WDG per application.
- DO NOT apply more than 29 ozs/A (0.5 lbs ai) of Apter PGR WDG per year.
- DO NOT make more than 2 applications per year of Apter PGR WDG when using reduced application rates.
- Retreatment Interval: 7 days
- DO NOT apply within 35 days before harvest.
- DO NOT graze livestock for 49 days following application.
- DO NOT cut forage or hay for livestock feed for 49 days following application.
- DO NOT apply this product through any type of irrigation system.
- Plantback/rotation restriction - If replanting or crop rotation is necessary in treated fields, DO NOT plant any crop other than grass grown for seed for 30 days following the last Apter PGR WDG application.

### Peanut\*

\*NOT FOR USE IN CALIFORNIA

For use only in Alabama, Arkansas, Florida, Georgia, Louisiana, Mississippi, New Mexico, North Carolina, Oklahoma, South Carolina, Texas, and Virginia.

Apter PGR WDG controls the vegetative growth of peanuts.

### Mode of Action

Apter PGR WDG acts within a peanut plant to inhibit the biosynthesis of gibberellin. The result is a decrease in cell elongation and a reduction in vegetative growth. Under normal use patterns, Apter PGR WDG will not affect the number of leaves, but will decrease the distance between leaves (internode length).

### Application Instructions

Apply Apter PGR WDG to actively growing peanut plants according to the rates instructed in Table 6. Make the first application of 7.25 ozs/A (0.125 lb ai) of Apter PGR WDG when 50% of the stems are touching in the row middle (row closure). Make a second application at 100% row closure, as needed. Under conditions that promote extremely rank growth and prior to loss of visual peanut row pattern in the field, apply an optional third application to peanut plants. DO NOT make more than 2 applications of Apter PGR WDG in less than 6 weeks. Plants that are under stress due to lack of moisture, disease pressure, or other stress conditions will show little response to Apter PGR WDG application.

### Spray Coverage

Because Apter PGR WDG is absorbed by the peanut leaves, thorough spray coverage of the foliage is necessary for adequate uptake.

### Broadcast Ground Application

**Water Volume.** Use a minimum of 20 gallons of spray solution per broadcast acre for optimal performance.

### Additives and Tank Mixing Information

Apter PGR WDG uptake into the peanut plant requires the presence of a non-phytotoxic nitrogen source in the spray solution. Failure to add a nitrogen source to the spray solution will result in unsatisfactory product performance.

### Nitrogen Source

- Urea ammonium nitrate (UAN) - Use one pint of UAN (commonly referred to as 28%, 30%, or 32% nitrogen solution) per acre.
- Ammonium sulfate (AMS) - One pound of AMS per acre can be substituted for one pint of UAN per acre. Use high quality spray grade AMS to avoid plugging nozzles. Other sources of nitrogen are not as effective as those mentioned.

### Oil Concentrate

Add one quart of a nonphytotoxic oil concentrate (referred to as crop oil concentrate or COC) per acre to the spray solution to promote consistent performance. Use COC when Apter PGR WDG is applied without a tank mix partner. If Apter PGR WDG is to be tank mixed with a fungicide, the adjuvant specified on the fungicide label can be used instead of the COC.

Additive	Ground Application
Nitrogen Source	1 pint UAN
Oil Concentrate	1 quart

Apter PGR WDG is compatible with many fungicides and insecticides commonly used in peanuts. To ensure mixing compatibility, perform a compatibility test (refer to the Mixing Instructions section).

DO NOT tank mix Apter PGR WDG with any application of calcium, including gypsum.

Table 6. Application Rates for Vegetative Growth Control on Peanuts

Application Timing	Apter PGR WDG Rate (ozs/A)	Additive Rate per Acre
<b>First application</b> <ul style="list-style-type: none"><li>• Apply to peanuts when 50% of stems are touching in row middle (row closure).</li></ul>	7.25 (0.125 lb ai)	1 pint UAN
<b>Second application</b> <ul style="list-style-type: none"><li>• Make a second application at 100% row closure, as needed.</li></ul>	3.6 to 7.25 (0.062 - 0.125 lb ai)	

### Precautions

- Rainfast period - Apter PGR WDG is rainfast 8 hours after application.

### Restrictions

- DO NOT apply more than 7.25 ozs/A (0.13 lbs ai) of Apter PGR WDG per application.
- Maximum annual use rate - DO NOT apply more than 21.75 ozs/A (0.374 lb ai) of Apter PGR WDG per year.
- DO NOT make more than 5 applications per year at reduced application rates.
- DO NOT make more than 2 Apter PGR WDG applications in less than 6 weeks.
- Preharvest Interval (PHI) - DO NOT apply within 25 days before harvest.
- Retreatment Interval: 7 days
- Restricted-Entry Interval (REI) - 12 hours
- DO NOT graze or feed treated crops.
- DO NOT apply Apter PGR WDG by air to peanut.



- **DO NOT** apply to crops that show injury (leaf phytotoxicity or plant stunting) produced by prior product applications, because this injury can be enhanced or prolonged. Refer to the **Additives and Tank Mixing Information** section for additional tank mixing instructions and precautions.
- **DO NOT** apply through any type of irrigation equipment.
- **Plantback/Rotation Restriction** - If replanting or crop rotation is necessary in treated fields, **DO NOT** plant any crop other than peanuts for 30 days following the last **Apter PGR WDG** application.
- **Stress** - **DO NOT** apply to crops under stress due to lack of moisture, hail damage, flooding, herbicide injury, or mechanical injury, as reduced activity can result.

## Pear\*

\*NOT FOR USE IN CALIFORNIA

**Apter PGR WDG** reduces vegetative growth in pear orchards allowing a balance between canopy development and fruit production. **Apter PGR WDG** provides many beneficial effects in pears including: reduced need for summer and dormant pruning, improved light penetration into the tree canopy, and reduced incidence and severity of fire blight of shoots (shoot blight).

### Mode of Action

**Apter PGR WDG** acts within pear trees to inhibit the biosynthesis of gibberellin, which is the natural plant hormone that regulates cell elongation. Inhibition of gibberellins results in reduced shoot growth. Vegetative growth suppression with **Apter PGR WDG** typically lasts for 2 to 5 weeks per application during the current growing season. **Apter PGR WDG** does not affect vegetative growth the following year.

### Gibberellic Acids

When gibberellic acid sprays are applied in the same season as **Apter PGR WDG** to reduce cracking or reduce russetting, a loss in efficacy can occur in the **Apter PGR WDG** and/or the gibberellin spray.

### Thinning

**Apter PGR WDG** application can cause a tree to retain more fruit. As a result, thinning programs may need adjustment.

### Vegetative Growth and Fire Blight Management

Fire blight management is not registered for use in California on pear.

Controlling vegetative growth with **Apter PGR WDG** can reduce fire blight infections of pears in two ways. First, applications of **Apter PGR WDG** have been shown to reduce latent bloom. Pear trees are the most susceptible to fire blight invasion during bloom. Reducing the length of the bloom period can help manage fire blight. Second, trees treated with **Apter PGR WDG** can be less susceptible to infection of shoots (refer to **Table 7** for application rates). For maximum reduction in fire blight susceptibility, apply **Apter PGR WDG** at least 10 days before weather conditions favorable for shoot and leaf infections occur. Use **Apter PGR WDG** as part of a total IPM strategy to control fire blight.

### Effect on Fruit Set and Fruit Size

Applying **Apter PGR WDG** may allow the tree to retain more fruit than untreated trees. Increasing the fruit load per tree will reduce the average fruit size. Evaluate this effect in determining whether to use **Apter PGR WDG**. When using **Apter PGR WDG**, growers must carefully regulate the fruit load per tree.

### Tree Row Volume (TRV)

Using **Apter PGR WDG** as part of a management program significantly reduces the tree row volume. Spray guides typically specify using the tree row volume to determine the correct pesticide application rates. Growers are advised to contact their local cooperative extension service or consultant for additional information regarding tree row volume.

### Application Instructions

Apply **Apter PGR WDG** to actively growing trees with ground equipment at rates and timing listed in **Table 7**.

### Spray Coverage

Because **Apter PGR WDG** is absorbed by the leaves, thorough spray coverage of the tree foliage is necessary for adequate uptake. Direct the spray to the portion of the tree where growth control is desired. To achieve thorough coverage, use sufficient water, proper spray pressure, nozzles, nozzle spacing, spray volume per acre, and tractor speed. Consult the spray nozzle and accessory guide for information pertaining to proper equipment calibration.

### Timing

For vegetative growth control, make the first **Apter PGR WDG** application in the spring when trees have 1 to 3 inches of new shoot growth. **Correct timing of application is critical to success.** An early first application (i.e., 1 to 2 inches of shoot growth) is more effective than a later application (i.e., 6 to 8 inches of shoot growth). If additional vegetative growth control is needed, make a sequential application before or immediately after the shoots show signs of regrowth, typically 1 to 4 weeks after the first application. Repeat applications as needed but not to exceed maximum per year. Refer to **Table 7** for application rates and timing.

### Number of Applications

The number of applications will vary depending on the timing of the first application, tree vigor, fruit load, pruning, variety, rootstock and/or the management history of the orchard. For pear orchards in locations with long growing seasons or higher vigor trees or trees with light fruit load, 3 to 5 applications per year can be more effective. The **Apter PGR WDG** treatment schedule is flexible and can be applied in a number of different schedules depending on the objectives of the individual grower (see **Table 7**). Consult with an extension specialist or consultant for your specific area.

### Tree Vigor

Adjust the **Apter PGR WDG** rate according to the vegetative vigor of the trees (see **Table 7**).

Vegetative vigor can be influenced by many factors, including fruit load, pruning, variety, rootstock, and location. A grower's experience is the best guide in predicting tree vigor. Some trees exhibit excessive shoot growth (high vigor) every year due to a combination of variety, rootstock, and location. However, trees that normally exhibit typical shoot growth can exhibit excessive growth in some years due to crop loss or severe winter pruning.

### Tree Size

Calculate the **Apter PGR WDG** rate per acre based on tree size. Base the application rate on the volume of water needed to spray the trees to drip (i.e., dilute spray or tree row volume).

## Application Rate

The **Apter PGR WDG** application rate is based on the vegetative vigor and the size of the tree.

1. Assess if trees have low, medium, or high vigor to determine the **Apter PGR WDG** rate.
2. Determine the size of the tree in terms of the amount of water needed for a dilute spray (spray to drip or according to tree row volume).
3. Multiply the **Apter PGR WDG** rate per 100 gallons of dilute spray by the size of the tree in gallons per acre. The result is the number of ounces needed per acre for those trees. Once the application rate is determined in ounces per acre, it can be concentrated into the actual spray volume.

$$\frac{\text{Ounces of Apter PGR WDG}}{100 \text{ gallons of water}} \times \frac{\text{TRV in gallons}}{\text{acre}} = \frac{\text{ounces}}{\text{acre}}$$

**Example calculation.** For a block of pear trees that typically produces 25 to 32 inches of shoot growth per year (vigorous growth), the suitable rate would be 2 applications of 6 ounces (0.103 lb ai) of **Apter PGR WDG** per 100 gallons of dilute spray according to **Table 7**. The trees are large and require 300 gallons of water per acre to spray dilute (i.e., spray to drip or to tree row volume).

$$\frac{6 \text{ ounces of Apter PGR WDG}}{100 \text{ gallons of water}} \times \frac{300 \text{ gallons (TRV)}}{\text{acre}} = \frac{18 \text{ ounces}}{\text{acre}}$$

Apply the **Apter PGR WDG** rate in dilute or concentrated sprays as long as thorough spray coverage is achieved.

Dilute spray volumes are based on the amount of solution required to thoroughly wet the tree foliage to the point of runoff. Consult your local extension agent or consultant for instructions to calculate dilute coverage based on tree row volume.

## Aerial Application

Aerial application is not registered for use in California.

Apply **Apter PGR WDG** in a minimum of 10 gallons of spray solution per broadcast acre. Aerial applications generally only provide spray coverage in the top part of the canopy and vegetative growth control will be limited to those areas that receive spray coverage.

## Additives and Tank Mixing Information Adjuvant

Use a standard tree fruit spray adjuvant, preferably a non-ionic surfactant, to improve leaf coverage and performance consistency. Follow the manufacturer's rate instructions.

## Nitrogen Source (if needed)

If the water source used for spray applications contains high levels of calcium carbonate (hard water), add one pound of ammonium sulfate (AMS) for every pound of **Apter PGR WDG**. Use high quality spray grade AMS to avoid plugging nozzles.

Previous experience has shown that **Apter PGR WDG** use by itself does not result in phytotoxicity and that **Apter PGR WDG** is compatible with many fungicides and insecticides used in pear orchards. However, all varieties and cultivars have not been tested with possible tank mix combinations. Local conditions can also influence crop resistance and may not match those under which testing has been conducted. Therefore, before using any tank mix, test the combination on a small portion of the crop to be treated to ensure that a phytotoxic response will not occur as a result of applications.

Tank mixes with calcium or boron sprays can result in less growth control from **Apter PGR WDG**.

**Table 7. Application Rates for Vegetative Growth Control and Fire Blight Infections of Shoots (Shoot Blight) in Pears**

Application Timing	Apter PGR WDG plant growth regulator Rate per 100 gallons of Dilute Spray* (ozs)	Apter PGR WDG Rate per acre** (ozs)
<b>Multiple applications</b> <ul style="list-style-type: none"> <li>• Apply at 1 to 3 inches of new shoot growth.</li> <li>• Make a second application at 10- to 17-day intervals.</li> <li>• Make subsequent applications as needed at 14- to 21-day intervals.</li> </ul>	6 (0.10 lb ai)	18 (0.31 lb ai)
<b>Vegetative growth control and reduced latent bloom (fire blight management)</b> <ul style="list-style-type: none"> <li>• Apply at 1 to 3 inches of new shoot growth.</li> <li>• Make a second application after 21 days.</li> </ul>	10 to 12 (0.17 lb ai)	30 to 36 (0.52 - 0.62 lb ai)
*Refer to the <b>Application Instructions</b> section for rate calculations. **Based on 300 gallons of dilute spray per acre.		

## Precautions

- **Rainfast period** - **Apter PGR WDG** is rainfast 8 hours after application.

## Restrictions

- **DO NOT** apply more than 36 ozs/A (0.62 lbs ai) of **Apter PGR WDG** per application.
- **Maximum annual use rate** - **DO NOT** apply more than 99 ozs/A (1.7 lb ai) of **Apter PGR WDG** per year.
- **DO NOT** make more than 5 applications of **Apter PGR WDG** at reduced application rates.
- **DO NOT** apply more than 48 ozs/A (0.83 lbs ai) of **Apter PGR WDG** within any 21-day interval.
- **Retreatment Interval:** 7 days
- **Preharvest Interval (PHI)** - **DO NOT** apply within 45 days before harvest.
- **Restricted-Entry Interval (REI)** - 12 hours
- **DO NOT** apply to crops that show injury (leaf phytotoxicity) produced by prior pesticide applications, because this injury can be enhanced or prolonged. Refer to the **Additives and Tank Mixing Information** section for additional tank mixing instructions and precautions.
- **DO NOT** apply this product through any type of irrigation system.
- Aerial application is not registered for use in California.

## Sweet Cherry

**Apter PGR WDG** reduces vegetative growth in sweet cherry orchards and can reduce or delay the need for tree pruning.

## Mode of Action

**Apter PGR WDG** acts within sweet cherry trees to inhibit the biosynthesis of gibberellins, which is the natural plant hormone that regulates cell elongation. Inhibition of gibberellins results in reduced shoot growth.

## Vegetative Control Use Rates and Tree Vigor

Adjust the **Apter PGR WDG** rate according to the vegetative vigor of the trees (refer to **Table 8**). Vegetative vigor can be influenced by many factors, including fruit load, pruning, variety, rootstock, and location. A grower's experience is the best guide in predicting tree vigor. Some trees exhibit excessive shoot growth (high vigor) every year due to a combination of variety, rootstock, and location. Trees that normally exhibit typical shoot growth can exhibit excessive growth in some years due to crop loss or severe winter pruning.

## Application Instructions

Apply **Apter PGR WDG** to actively growing trees with ground equipment at rates and stages listed in **Table 8**.

## Spray Coverage

Because **Apter PGR WDG** is absorbed by the leaves, thorough spray coverage of the tree foliage is necessary for adequate uptake. Direct the spray to the portion of the tree where growth control is desired. To achieve thorough coverage, use sufficient water, proper spray pressure, nozzles, nozzle spacing, spray volume per acre, and tractor speed.

## Timing

For vegetative growth control, make the first **Apter PGR WDG** application in the spring when 1 to 3 inches of new shoot growth has occurred. **Correct timing of application is critical to success.** An early first application (i.e., 1 to 2 inches of shoot growth) is more effective than a later application (i.e., 4 to 8 inches of shoot growth). If additional vegetative growth control is needed, make a sequential application before or immediately after the shoots show signs of regrowth, typically 2 to 4 weeks after first application. Repeat applications as needed but not to exceed maximum per year. Refer to **Table 8** for application rates and timing.

## Number of Applications

The number of applications will vary depending on the timing of the first application, tree vigor, fruit load, pruning, variety, rootstock and/or the management history of the orchard. For cherry orchards in locations with long growing seasons or higher vigor trees or trees with light fruit load, 3 to 5 applications per year can be more effective. The **Apter PGR WDG** treatment schedule is flexible and can be applied in a number of different schedules depending on the objectives of the individual grower. Consult with an extension specialist or consultant for your specific area.

## Aerial Application

Aerial application is not registered for use in California.

Apply **Apter PGR WDG** in a minimum of 10 gallons of spray solution per broadcast acre. Aerial applications generally only provide spray coverage in the top part of the canopy and vegetative growth control will be limited to those areas that receive spray coverage.

## Additives and Tank Mixing Information Adjuvant

Use a standard spray adjuvant, preferably a non-ionic surfactant, to improve leaf coverage and performance consistency. Follow the manufacturer's rate instructions.

## Nitrogen Source (if needed)

If the water source used for spray applications contains high levels of calcium carbonate (hard water), add one pound of ammonium sulfate (AMS) for every pound of **Apter PGR WDG**. Use high quality spray grade AMS to avoid plugging nozzles.

Previous experience has shown that **Apter PGR WDG** use by itself does not result in phytotoxicity and that **Apter PGR WDG** is compatible with many fungicides and insecticides used in cherry orchards. However, all varieties and cultivars have not been tested with possible tank mix combinations. Local conditions can also influence crop resistance and may not match those under which testing has been conducted. Therefore, before using any tank mix, test the combination on a small portion of the crop to be treated to ensure that a phytotoxic response will not occur as a result of applications.

Tank mixes with calcium or boron sprays can result in less growth control from **Apter PGR WDG**.

**Table 8. Application Rates for Vegetative Growth Control in Sweet Cherries**

Application Timing	Product Rate per Application (ozs/A)
High vigor trees	8 to 20 (0.14 - 0.34 lb ai)
Medium vigor trees	8 to 12 (0.14 - 0.21 lb ai) in California 6 to 12 (0.10 - 0.21 lb ai) in all other states
Low vigor trees	<b>DO NOT</b> apply <b>Apter PGR WDG</b> to low vigor trees

## Precaution

- **Rainfast period** - **Apter PGR WDG** is rainfast 8 hours after application.

## Restrictions

- **Maximum annual use rate** - **DO NOT** apply more than a total amount of 40 ozs/A (0.69 lbs ai) **Apter PGR WDG** per acre per year.
- **DO NOT** apply more than 20 ozs/A (0.34 lb ai) of **Apter PGR WDG** as a single application.
- **DO NOT** reapply within 14-days of previous application.
- **DO NOT** make more than 6 applications per acre per year when using reduced application rates.
- **Preharvest Interval (PHI)** - **DO NOT** apply within 20 days before harvest.
- **Restricted-Entry Interval (REI)** - 12 hours
- **DO NOT** apply to crops that show injury (leaf phytotoxicity) produced by prior pesticide applications because this injury may be enhanced or prolonged. Refer to the **Additives and Tank Mixing Information** section for additional tank mixing instructions and precautions.
- **DO NOT** apply this product through any type of irrigation system.
- **DO NOT** use **Apter PGR WDG** on tart cherries.
- Aerial application is not registered for use in California.

## STORAGE AND DISPOSAL

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

**PESTICIDE STORAGE:** Store in a tightly closed container in a cool, dry place. Store in original container and out of reach of children, preferably in a locked storage area.

**PESTICIDE DISPOSAL:** Pesticide spray mixture or rinsate that cannot be used should be disposed of in a landfill approved for pesticides. Improper disposal of excess pesticide spray mixture or rinsate is a violation of Federal law. If these wastes cannot be disposed of by the use 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.

### CONTAINER HANDLING:

**Plastic Bag:** Nonrefillable outer bag. Do not reuse or refill the outer bag. Completely empty bag into application equipment. Then 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.

**Plastic Container:** Nonrefillable container. Do not reuse or refill this container. Triple rinse container (or equivalent) promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank. Fill the container 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 if available or puncture and dispose of in a sanitary landfill, or by incineration, or by other procedures allowed by state and local authorities.

## LIMITATION OF WARRANTY AND LIABILITY

**IMPORTANT: READ BEFORE USE.** Read the entire Directions for Use, Conditions of Warranties and Limitations of Liability before using this product. If these terms and conditions are not acceptable, return the unopened product container at once. By using this product, user or buyer accepts the following Disclaimer of Warranties and Limitations of Liability. **CONDITIONS:** The directions for use of this product are believed to be adequate and must be followed carefully. However, it is impossible to eliminate all risks associated with the use of this product. Ineffectiveness, injury, and other unintended consequences may result because of such factors as manner of use or application (including misuse), the presence of other materials, weather conditions, and other unknown factors, all of which are beyond the control of AVALAIRE, LLC. To the extent consistent with applicable law, all such risks shall be assumed by the user or buyer.

**DISCLAIMER OF WARRANTIES:** To the extent consistent with applicable law, AVALAIRE, LLC makes no other warranties, express or implied, of merchantability or of fitness for a particular purpose or otherwise, that extend beyond statements on this label. **LIMITATIONS OF LIABILITY:** To the extent consistent with applicable law, neither AVALAIRE, LLC the manufacturer, nor the Seller shall be liable for any indirect, special, incidental or consequential damages resulting from the use, handling, application, storage, or disposal of this product. To the extent consistent with applicable law, the exclusive remedy of the user or buyer for any and all losses, injuries or damages resulting from the use, handling, application, or storage of this product, whether in contract, warranty, tort, negligence, strict liability or otherwise, shall not exceed the purchase price paid.

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