

# BOOST-48%

PLANT GROWTH REGULATOR  
SOLUBLE CONCENTRATE

Class :  
Ethylene generator

Plant growth regulator accelerate and regulate fruit and vegetables ripening when apply to different plants stages.

**COMPOSITION** : Each liter contains:

**ETHEPHON**

**48 % W/V (A.I)**

**PROPERTIES:**

**BOOST-48%** : Plant growth regulator accelerate and regulate fruit and vegetables ripening.

**BOOST-48%** : Increase the yield by promoting the ripening and colouring and facilitate harvesting.

**BOOST-48%** : Plant growth regulator penetrates into the plant tissues, and is decomposed to ethylene, which enhances the growth processes.

**BOOST-48%** : Slightly toxic to mammalian.

**BOOST-48%** : Toxic to bees, slightly toxic to fish.

• For more details about first aid & precautions please refer to first aid & precautions index .

**USAGE AND DOSAGE:**

**MODE OF ACTION:**

can release ethylene which absorb by plant, regulate and accelerate growth and development in plant.

**1- Tomatoes:**

CROP	APPLICATION RATE ML/20 LT. WATER	SPECIFIC DIRECTION	REMARKS
<b>Process Tomatoes (Early and mid-season crops of warm conditions).</b>	8 - 21	Apply when 5-15% of the fruit in the field are red and pink (including breakers) and there is sufficient mature green fruit to produce the desired tonnage. - Under high temperature, rates as low as 8 ml/20lt. water. - Thorough coverage is essential. - Overdosing can cause severe foliage injury. - Observe treated fields closely and harvest fruit at proper maturity.	- Sample several plants throughout the field to determine proper spray date. - Sort, weight and calculate the percent fruit which is red and pink, including breakers. Fruit size alone is not an adequate indicator. Observe specific directions to determine treatment stage for your situation. - Maintain normal cultural practice between treatment and harvest.
<b>Process Tomatoes (Late season or coastal crops or cool conditions).</b>	21 - 41	- Apply when 5-30% of fruit in the field are red and pink (including breakers) and there is sufficient mature green fruit to produce the desired tonnage. - Maximum response is achieved when fruit to be treated is 5-15% pink and red. Use the higher rate of <b>BOOST-48%</b> when night time temperatures are cool or vegetative growth is dense. - Thorough coverage is essential.	- Harvest at proper maturity. - Higher temperatures may cause fruit to ripen sooner whereas low temperatures may extend the time between treatment and harvest.
<b>Fresh market Tomatoes.</b>	8 - 32	- Apply when fruit has reached marketable size and maturity, generally 3-6 days before desired harvest date. - Thorough coverage is essential. - Use the higher rate and longer preharvest interval on late season crops, when temperatures are cool and foliage is dense. - Under high temperatures, rates as low have been effective.	- Check treated fruit frequently and harvest at desired maturity. When programming harvest, spray a different block each day and harvest blocks daily in the same sequence.

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**USE LIMITATIONS:**

- Do not apply before sufficient mature green fruit. exist **BOOST-48%** plant regulator will not ripen immature green fruit.
- Some yellowing and general aging of foliage may be observed following treatment.
- Do not treat plants with weak root systems or growing under stress due to poor soil conditions, drought, disease or insect damage. Treatment of weak plants will result in rapid loss of foliage cover increasing sunburn and sun scald potential, especially under high temperature conditions.
- Do not treat when sustained temperatures above 40 °C.
- Do not treat sensitive varieties during period when temperature exceed 38 °C.
- Do not mix with sun protection products, sun protection whiteners, spray adjuvant or other additives.
- Do not apply **BOOST-48%** plant regulator to regions that can be harvested in 2-3 days.
- Do not apply **BOOST-48%** plant regulator to varieties known to soften rapidly or shatter when ripe.
- Do not use on greenhouse Tomatoes.
- Do not harvest tomatoes treated with **BOOST-48%** plant regulator sooner than 3 days after last application.

**2- Grapes:**

CROP	APPLICATION RATE ML/20 LT. WATER	SPECIFIC DIRECTION	REMARKS
<b>Table Grapes (such as Cardinal, Flame seedless, Red malaga, and Queen)</b>	3 - 12	For high temperature conditions (above 29 °C) use lower rates. For low temperatures conditions (but above 18 °C) use higher rates. Apply in sufficient water to wet vines and fruit clusters uniformly, using conventional ground sprayers. Treat when 5-30% of berries show color.	Harvest fruit at desired maturity and quality as indicated by sugar content, acidity and color. Watch treated areas closely and harvest before berries.
<b>Grapes (Tokay)</b>	6 - 12	Treat Tokays when 5-15% of berries show color.	Harvest fruit at desired maturity and quality as indicated by sugar content, acidity and color. Watch treated areas closely and harvest before berries.
<b>Raisin production (Thompson seedless)</b>	6 - 12	Apply as a foliar spray at 5% berry softening. Treat when 5-30% of berries show color.	A foliar spray will hasten maturity of Thompson seedless grapes resulting in reduce acids, increase sugars and increased raisin quality.

**USE LIMITATIONS:**

**1- Table grapes**

- Rates higher than 6 ml/20 lt. Water may increase the incidence of cracked fruit and should be used only in areas or during weather conditions where Grapes have been especially hard-to-color in past seasons.
- Some berry softening is associated with **BOOST-48%** plant regulator treatment of some varieties which may limit or influence storage considerations.
- Do not harvest Grapes sooner than 14 days after last application.
- Do not store (Tokay).

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## 2- Raisin production (Thompson seedless)

- Do not apply to grapes under stress from insect damage or moisture stress. Observe treated vineyard closely and harvest at proper maturity as determined by sugar acid levels.

## 3- Apples:

CROP	APPLICATION RATE ML/20 LT. WATER	SPECIFIC DIRECTION	REMARKS
<b>Fruit loosening</b>  <b>1- Early and mid-season maturing varieties (varieties maturing with McIntosh or earlier).</b>  <b>2- Late maturing varieties. (varieties maturing later than McIntosh).</b>	16	- Apply a foliar spray to Apple trees 7-14 days before harvest immediately.  - Use sufficient water for thorough uniform spray coverage. Observe fruit daily as the proper picking period is shorter with <b>BOOST-48%</b> treated fruit than untreated fruit.	- Application <b>BOOST-48%</b> will: promote fruit loosening, promote uniform ripening and coloring without loosening, promote thinning and return bloom and increase flower bud development in young trees.  - Treat when air temperatures are between 27-32 °C.
	32		-If daytime temperatures are warm, color response from <b>BOOST-48%</b> treatment will be reduced, but ripening and loosening effects will be accelerated.
<b>Promotion of uniform ripening and coloring of red varieties without loosening.</b>  <b>1- Early or mid-season maturing varieties (varieties maturing with McIntosh or earlier).</b>  <b>2- Late maturing varieties (varieties maturing later than McIntosh).</b>	6 - 24	Begin spraying 2 to 3 weeks before normal harvest period and about 1-2 weeks before desired harvest date.  - Apply as a normal dilute spray using sufficient water for thorough uniform coverage.	- Do not allow fruit to become overripe on trees. Fruit intended for fresh market must be checked for quality and maturity. Color alone is not an adequate guide for fruit maturity.  - Treated fruit when harvest and stored may soften sooner than untreated fruit.
	12 - 24	- Actual volume will depend on the type of delivery of sprayer used and size of trees.  - Use the lower rate for apples intended for storage.	- Do not apply <b>BOOST-48%</b> to crops that can be harvested in 1-2 days.  - Treated fruit can be satisfactorily held in cold air storage provided fruit is in good condition.

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Apple continued :

CROP	APPLICATION RATE ML/20 LT. WATER	SPECIFIC DIRECTION	REMARKS
<p><b>1. Most varieties.</b></p> <p><b>2. Difficult to thin varieties such as Golden delicious.</b></p>	<p>10 - 24</p> <p>18 - 36</p>	<ul style="list-style-type: none"> <li>- Treat 10-20 days after full bloom.</li> <li>- No label dosage rates should be exceeded.</li> <li>- <b>BOOST-48%</b> cannot be mixed with any product containing a label prohibition against such mixing.</li> <li>- Addition of a non-ionic surfactant can enhance treatment effectiveness.</li> <li>- Buffering spray solution to a pH of 3-5 can improve performance where water is alkaline.</li> <li>- Use a spray volume sufficient to cover trees thoroughly and uniformly.</li> </ul>	<ul style="list-style-type: none"> <li>- Whenever a high percent of the spurs and lateral buds bloom in a single season severe alternate bearing can develop the following year.</li> <li>- To overcome this problem use <b>BOOST-48%</b>, applied 7-21 days after full bloom.</li> <li>- The program to use will depend on the amount of thinning required and the biennial bearing history of your orchard. Expect (Red Delicious) to show a reduction of "type" and fruit size particularly on trees under stress.</li> <li>- Use of higher dose rates may reduce fruit size.</li> </ul>
<p><b>1- Non-bearing trees.</b></p> <p><b>2- Bearing trees. Increased flower bud development.</b></p>	<p>12 - 48</p> <p>3 - 18</p>	<p>Spray trees thoroughly and uniformly to the point of runoff. Use the higher rate on more vigorous trees.</p> <ul style="list-style-type: none"> <li>- Treat 2-4 weeks after full bloom.</li> <li>- To help minimize fruit thinning, delay application until 5-6 weeks after full bloom and after june drop.</li> </ul>	<ul style="list-style-type: none"> <li>- To increase flower bud development on non-bearing trees apply a foliar spray of <b>BOOST-48%</b> 2-4 weeks after bloom.</li> <li>- Treatment can result in excessive fruit thinning and reduced fruit size and yield reduction the year of usage.</li> <li>- <b>BOOST-48%</b> should reduce vegetative growth and increase flowering the following spring. Trees should be large enough to support a crop of apples before treatment to initiate flower buds.</li> </ul>

**USE LIMITATIONS**

- The use of **BOOST-48%** plant regulator can result in over thinning and reduced fruit size.
- Avoid double coverage and use on low vigor trees.
- Environmental factors can affect thinning and return bloom, it is advisable to obtain experience under your conditions by initially testing only a small percent of your trees each year with any on program.

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- User must consider risk of excessive fruit thinning and fruit size reduction when using **BOOST-48%** plant regulator on young trees just starting to bear.
- Treat only vigorous trees since excessive growth reduction will result on weak trees.
- For best results a thorough uniform spray is needed. A wetting agent may improve spray coverage.
- Do not graze or feed cover crops grown in treated Apple orchards.
- Do not harvest Apples treated with **BOOST-48%** plant regulator sooner than 7 days after last application.
- Fruit size reduction may occur when used to obtain early maturity, especially if fruit is small at time of treatment.
- **BOOST-48%** plant regulator applied earlier than 3 weeks before normal anticipated harvest may result in reduced fruit quality and size.

#### 4- Peppers:

CROP	APPLICATION RATE ML/20 LT. WATER	SPECIFIC DIRECTION	REMARKS
Peppers	8-24	<p>Thorough coverage is essential.</p> <p>Use the higher rate when cool temperatures are anticipated (less than 18 °C), when plants are growing vigorously or when foliage is dense to assure thorough wetting of all leaves and fruit.</p> <p>- Use the lower rates with lower spray volumes 8-12 ml/20 lt. Water and higher rates with higher volumes 18-24 ml/20 lt. Water can cause foliage burn under hot dry conditions.</p> <p>- Apply <b>BOOST-48%</b> to bell Peppers when 10% of fruit are red and chocolate and to (Chili) and (Pimento) Pepper varieties when 10-30% of fruit are red and chocolate and there is sufficient mature green fruit. <b>BOOST -48%</b> will not ripen immature, green fruit.</p>	<p>- Check several field locations to determine crop stage and degree of maturity.</p> <p><b>BOOST-48%</b> treatments may reduce total yields if applied too early or there is a lack of uniform, mature, green fruit resulting from spilt fruit set. Cultural practices. Harvest fruit after desired color and maturity, generally 14 or more days after treatment.</p>

#### USE LIMITATIONS:

- Do not treat when temperatures exceed 35 °C applications made under high temperatures will accentuate fruit ripening, yellowing of foliage, defoliation and immature fruit abscission.
- Do not treat when average temperatures are below 15.5 °C. Low temperatures after treatment may reduce or negate the effects of **BOOST-48%** plant regulator.
- Some yellowing and general aging of leaves will be noted after treatment.
- Do not harvest treated peppers sooner than 5 days after last application.

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**NOTE:**

Under certain conditions tank mixtures of **BOOST-48%** plant regulator with desiccants containing sodium chlorate could result in the formation of hypochlorous acids which on heating will emit toxic chloride fumes.

**5- Muskmelon:**

CROP	APPLICATION RATE ML/20 LT. WATER	SPECIFIC DIRECTION	REMARKS
Muskmelon	18	<ul style="list-style-type: none"><li>- Good spray coverage is important for producing uniform abscission. Use 40 or more gallons for ground and 10 or more gallons /4 donum for arial application.</li><li>- Be prepared to harvest abscised fruit 2-5 days after treatment.</li><li>- The exact pre-harvest interval will vary with temperature.</li></ul>	<ul style="list-style-type: none"><li>- The effect will be faster at higher temperature.</li><li>- <b>BOOST-48%</b> should not be used until after fruit has developed marketable levels of soluble solids and flesh color.</li></ul>

.Gallon = 4.5 liter.

Donum=1000 m<sup>2</sup>

**USE LIMITATIONS:**

- **BOOST-48%** should not be applied when night temperature are below 15.5 °C.
- Treat only those fruit that have a fairly uniform fruit set, have vines in good condition and have fruit with marketable soluble solids and internal flesh color.
- Do not treat fields where soluble solids are running less than 10%.
- Do not harvest Muskmelon treated with **BOOST-48%** sooner than 2 days after last application.

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