

### FOLLOWING SEASON EFFECTS

Alar may increase apple set the year following treatment. Where a heavy or excessive fruit set is observed, thinning should be utilized prior to any Alar application.

If excessive fruit set is observed accompanied by size reduction, short thickened stems, shallow stem cavities, and misshaped fruit, do not treat with Alar.

Leave some untreated trees in each orchard for comparison with treated trees.

Earlier application dates and lower recommended rates minimize the possibility of following season effects.

### sweet cherries

#### TO HASTEN RIPENING

Mix at the rate of 1 to 2 pounds per 100 gallons of water. Apply 400 gallons per acre (4.8 pounds of ALAR per acre) on mature bearing trees two weeks after full bloom.

Apply only one spray during each growing season.

Do not spray low vigor trees as fruit size reduction may occur.

### sour cherries

To hasten ripening, concentrate maturity and decrease force required to remove fruit:

Apply Alar two weeks after full bloom as a dilute spray (250 to 400 gallons per acre) at the rate of 4 pounds per 100 gallons of spray.

### peaches

#### TO HASTEN RIPENING AND CONCENTRATE MATURITY

Mix at the rate of 1 to 2 pounds per 100 gallons of water. Apply 400 gallons per acre (4.8 pounds of ALAR per acre) on mature bearing trees between style abscission (3 weeks post bloom) and pit hardening.

Apply only one spray during each growing season.

Do not spray low vigor trees as fruit size reduction may occur.

Leaf injury may occur appearing as shot holing and possible leaf drop.

### grapes

#### CONCORD VARIETY ONLY

To Increase Fruit Set and Yield—  
To Reduce Rate of Vine Growth

Apply during the period first bloom to full bloom at the following rates:

Vine Growth	Annual Pruning Weight per Vine (8 x 9 foot spacing)	Pounds ALAR per 100 gallons water	Pounds ALAR per acre
Low vigor	Do Not Use		
Medium vigor	About 2.3 pounds	1/2	1 1/2
High vigor	3 pounds or more	1	2 1/2

ACCEPTED

MAY 22 1977

THIS PRODUCT HAS BEEN  
EXAMINED AND FOUND TO  
CONFORM WITH THE REQUIREMENTS  
FOR FEDERAL REGISTERED  
EPA UNDER NO.

**CAUTION! KEEP OUT OF REACH OF CHILDREN.  
Avoid contact with eyes and skin. Avoid breathing dust or  
spray mist. May be harmful if swallowed.**

# ALAR®

**A PLANT GROWTH  
REGULANT**

NET WT. FIVE POUNDS

#### COMPOSITION

Active Ingredient (Percent by Weight) Succinic acid 2,2-dimethylhydrazide*	85.0%
Inert Ingredients	15.0%
<b>TOTAL</b>	<b>100.0%</b>

*another product of*

**UNIROYAL**

\*U.S. Patent Numbers 3,240,799 — 3,334,991

EPA Reg. No. 400-99-AA



Use only on healthy, vigorous trees. Under no conditions should Alar be used on low vigor trees or on trees under stress conditions as excessive reduction in fruit size and vegetative growth may result (see application note #2). The effects of Alar will vary depending on time and rate of application. The higher the rate the greater the magnitude of effect during the year of treatment and the greater the possibility for following season effects (see following season effects).

Depending on time and rate of application, Alar will produce multiple desirable effects (see table 1).

TABLE 1

DESIRABLE EFFECTS

1. Apple maturity is delayed and the harvest period is extended.
2. Increased red color may result on red varieties.
3. Aids in fruit drop control.
4. Increases firmness of fruit.
5. Reduces incidence of scald on some varieties.
6. Delays occurrence of water core.
7. Controls fruit size.
8. Reduces vegetative growth.
9. Promotes flower bud initiation, increasing return bloom.

TIMING OF ALAR APPLICATIONS

Alar can be sprayed on apple trees beginning 10 days after petal fall to 60 days before normal harvest. (Northwest U. S. 10-80 days after full bloom). Alar should be used only on apple varieties which have a bloom to harvest day count of over 100 days. Alar should be applied only once during the growing season at times based on bloom, petal fall, or anticipated harvest date.

TABLE 2 EFFECTS-TIMING SUMMARY

EFFECTS	A	B	C
1. Delayed maturity	YES	YES	YES
2. Increased red color	YES	YES	YES
3. Decreased Fruit Drop	YES	YES	YES
4. Increased firmness	YES	YES	YES
5. Reduced Scald	YES	YES	YES
6. Delayed water core	YES	YES	YES
7. Controls fruit size	Least	Moderate	Greatest
8. Reduced vegetative growth	None	Some to None	Greatest
9. Return Bloom	Some to None	Some to None	Greatest

TABLE 3 DOSAGE TABLE-APPLICATION TIMING

TREE VIGOR	A		B		C	
	lbs/100 gals	lbs/acre	lbs/100 gals (1)	lbs/acre	lbs/100 gals (1)	lbs/acre
LOW			DO NOT USE			
MODERATE	1/2	3	1/2	3	1 1/2	4.5
GOOD TO HIGH	1	4	1 1/2	4.5	1 1/2	4.5
VERY HIGH	1 1/2	6	1 1/2	4.5	2	6
YOUNG, NON BEARING TREES					1 1/2	

FOOTNOTE

1. Maintenance of vigorous trees is essential for best results. Annual pruning resulting in removal of weak wood, proper fertilization, and other cultural practices which contribute to high tree vigor should be used. Use leaf analysis services where available to assist in determining degree of tree vigor.
2. This dilution rate is based on average applications of 400 gallons per acre (to drip point) on mature bearing trees. Most field experience has been with dilute sprays but concentrate sprays can be used if care is taken to get uniform and complete coverage. Do not exceed the per acre recommended rate.
3. In areas with short growing seasons, treat good to very high vigor trees as moderate.
4. On Golden Delicious in Northwest apply 10-14 days after full bloom at 2 lbs./100 gallons (8 lbs./acre).
5. Do not use more than 4 lbs./acre in Northwest.

GENERAL INSTRUCTIONS

Alar is a water soluble plant growth regulator. It should be applied as a foliar spray in a manner that insures uniform and complete coverage. Since Alar must be absorbed by the plant to be effective it is necessary that the application be followed by a 12 hour rain free period.

APPLICATION NOTES and PRECAUTIONS

1. On apples, the earlier Alar is applied and the higher the rate used, the greater the reduction in fruit size. Less fruit size reduction occurs on high vigor trees.
2. Do not spray on any low vigor trees or trees under stress conditions such as drought, low fertility, winter injury, etc., since excessive reduction in both fruit size and tree growth may result.
3. Spray only once during a year. Split applications are not recommended.
4. Do not mix Alar with other pesticides. When Alar is mixed with water for spraying, use the mixture on the same day.
5. A minimum rain free period of 12 hours is needed after application of the water spray solution of Alar to insure adequate absorption into plants.
6. Do not graze animals on cover crops grown among trees listed on this label. Do not feed livestock apple pomace from Alar treated apples.

CONTAINER DISPOSAL

Burn or bury eighteen inches below soil surface at safe disposal site. When burning pesticide containers, keep out of smoke. Never reuse for food or water.

FISH AND WILDLIFE

Keep out of lakes, streams or ponds. Do not contaminate water by cleaning equipment or disposal of waste.

**IMPORTANT NOTICE** Seller warrants that this product conforms to its chemical description and is reasonably fit for the purposes stated on the label when used in accordance with the directions and instructions specified on the label under normal conditions of use, but neither this warranty nor any other warranty of merchantability or fitness for a particular purpose express or implied extends to the use of this product contrary to label instructions or under abnormal conditions, or under conditions not reasonably foreseeable to seller and buyer assuming the risk of any such use.