ReTain® Plant Growth Regulator Enhances Cherry Fruit Set

ReTain® Plant Growth Regulator for California extends flower viability, increasing the opportunity for fruit set to occur. For best results, use *ReTain* in advance of poor pollinating conditions (cool, wet weather, desiccating winds and/or low bee activity) or on varieties with low natural fruit set.

▶ Extends flower viability by reducing early senescence

▶ Increases potential for fruit set under low bee activity

▶ Effective on low-setting orchards and varieties (Bing, Brooks, Coral, Chelan, etc.)

How To Use

Rate	1 pouch per acre (333 grams or 11.7 oz per acre)
Method	Apply by ground with orchard sprayer
Spray Volume	100 gal/A (usually sufficient)
Adjuvant	Not recommended
Timing	Apply at 15–20% bloom
REI	12 hours

ReTain Maximizes the Harvest Potential of Your Cherry Crop

Application at bloom of *ReTain* at 1 pouch/A (11.7 oz) in 100 gallons per acre showed significant increases in fruit set across multiple locations and years.

Two-Year Study Evaluating the Performance of *ReTain* to Impact Cherry Fruit Set										
Year 1		**Fruit/LCSA (cm sq)***				**Year 2**		**Fruit/LCSA (cm sq)***		
Location	**Variety**	**Treated**	**Untreated**	**Percent Increase**		**Location**	**Variety**	**Treated**	**Untreated**	**Percent Increase**
Arvin	Brooks	22.69	4.16	445.4%		Patterson	Brooks	65.73	37.64	75%
Arvin	Tulare	7.54	4.25	77.4%		Patterson	Coral	54.26	43.58	25%
Patterson	Brooks	11.92	2.57	363.8%		Arvin	Brooks	72.68	22.05	230%
Patterson	Brooks	16.83	10.67	57.7%		Arvin	Brooks	26.61	14.61	82%
Patterson	Coral	2.13	0.92	131.5%		Arvin	Tulare	36.20	13.63	166%
Patterson	Coral	7.69	10.67	54.4%		Arvin	Tulare	13.52	6.97	94%
Visalia	Sequoia	15.09	0.98	1439.8%		Arvin	Brooks	34.66	6.92	401%
Lodi	Bing	13.50	9.81	37.6%		Arvin	Tulare	6.86	4.29	60%
						Arvin	Brooks	6.55	2.04	221%
						Arvin	Tulare	2.75	1.67	65%
						Arvin	Brooks	35.19	16.99	107%
						Arvin	Tulare	38.61	13.46	187%
						Arvin	Coral	32.28	12.88	151%
						Firebaugh	Brooks	3.24	0.96	238%
						Firebaugh	Tulare	4.12	2.45	68%
						Stockton	Jubilee	3.88	1.69	130%

*Single limbs from 20 separate trees were evaluated per treatment per trial site

Source: Independent grower trials conducted over two years

ReTain Extends the Viability of Blooms, Allowing for Increased Chance of Pollination

Research conducted at The Ohio State University shows that *ReTain* extends the life of the flower by 1–3 days, depending on temperature conditions, by inhibiting ethylene production and thus allowing the stigmatic surface and other flower organs to remain viable longer. These longer-living flowers have an increased chance of getting pollinated by bees working the orchard and setting a better crop.

Maximize Fruit Set Following Poor Chilling Conditions

To get a strong bloom and maximize good fruit set potential, California fruit and nut crops require sufficient cold winter weather. In cherries, these minimum requirements can vary for each cultivar. The variety (e.g., standard or low-chill varieties), rootstock, the crop load previous year, amount of fog, precipitation and / or overhead cooling are all variables, which can affect the amount of chilling needed. Insufficient cold weather to achieve the variety's requirement will lead to a protracted and uneven bloom often affecting the synchronicity with pollinizer varieties and leading to poor fruit set and quality. California growers need to track the effective chilling hours referred to as chill portions per the Dynamic Model recommended by the University of California. This model takes into account chill portions accumulated at various temperatures during the whole dormant period. For more information on the Dynamic Model, refer to the following website: fruitsandnuts.ucdavis.edu/chill-calculator

Other Important Information

▸ Do not apply after petal fall

▸ Do not apply *ReTain* if rain is expected within 8 hours after application

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