Product Name: Conquest Ethephon 900 Growth Regulator
APVMA Approval No: 94920/144035

Label Name:	Conquest Ethephon 900 Growth Regulator

Signal Headings:	POISON KEEP OUT OF REACH OF CHILDREN READ SAFETY DIRECTIONS BEFORE OPENING OR USING

Constituent Statements:	ACTIVE CONSTITUENT: 900 g/L ETHEPHON (an anticholinesterase compound)

Mode of Action:	

Statement of Claims:	For anti-lodging in barley or crop thinning, loosening or ripening in various crops and for accelerating boll opening, defoliation and pre-conditioning before defoliation of cotton as specified in the Directions for Use table.

Net Contents:	1 L - 1000 L

Restraints:	RESTRAINTS: DO NOT apply to weak or stressed plants. DO NOT pre-condition with sodium chlorate before applying this product. DO NOT apply if cotton buds have been killed by frost. DO NOT apply if rain is expected within 8 hours of application. DO NOT apply if mean day/night temperatures are expected to fall below 18°C. DO NOT mix with hard (alkaline) water. DO NOT apply before sufficient mature unopened bolls have developed to produce the desired yield. SPRAY DRIFT RESTRAINTS: Specific definitions for terms used in this section of the label can be found at apvma.gov.au/spraydrift. DO NOT allow bystanders to come into contact with the spray cloud. DO NOT apply in a manner that may cause an unacceptable impact to native vegetation, agricultural crops, landscaped gardens and aquaculture production, or cause contamination of plant or livestock commodities, outside the application site from spray drift. Wherever possible, correctly use application equipment designed to reduce spray drift and apply when the wind direction is away from these sensitive areas.

	DO NOT apply unless the wind speed is between 3 and 20 kilometres per hour at the application site during the time of application. DO NOT apply if there are hazardous surface temperature inversion conditions present at the application site during the time of application. Surface temperature inversion conditions exist most evenings 1 to 2 hours before sunset and persist until 1 to 2 hours after sunrise.

Directions for Use:	This section contains file attachment.

Other Limitations:	

Withholding Periods:	BARLEY: DO NOT HARVEST FOR 1 DAY AFTER APPLICATION. APPLES, CHERRIES, MACADAMIA NUTS, PINEAPPLES, TOMATOES, WINE GRAPES: DO NOT HARVEST FOR 7 DAYS AFTER APPLICATION. PEACHES AND SUGAR CANE: DO NOT HARVEST FOR 6 WEEKS AFTER APPLICATION. TABLE GRAPES, COTTON: DO NOT HARVEST FOR 14 DAYS AFTER APPLICATION.

Trade Advice:	

General Instructions:	This section contains file attachment.

Resistance Warning:	

Precautions:	

Protections:	PROTECTION OF CROPS, NATIVE AND OTHER NON-TARGET PLANTS Do not apply under weather conditions, or from spraying equipment, that may cause spray to drift onto nearby susceptible plants/crops, cropping lands or pastures. Wash sprayer thoroughly after use. PROTECTION OF WILDLIFE, FISH, CRUSTACEANS AND ENVIRONMENT Do not contaminate streams, rivers or watercourses with the chemical or used containers.

Storage and Disposal:	Store in the closed, original container in a cool, well-ventilated area. Do not store for prolonged periods in direct sunlight. Do not contaminate seed, feed or foodstuff. Do not reuse container for any purpose. Triple rinse containers before disposal. Add rinsings to spray tank. Do not dispose of undiluted chemicals on site. If recycling, replace cap and return clean containers to recycler or designated collection point. If not recycling, break, crush, or puncture and deliver empty packaging to an approved waste management facility. If an approved waste management facility is not

	available, bury the empty packaging 500 mm below the surface in a disposal pit specifically marked and set up for this purpose, clear of waterways, desirable vegetation and tree roots, in compliance with relevant local, state or territory government regulations. Do not burn empty containers or product. For REFILLABLE containers: Empty contents fully into application equipment. Close all valves and return to point of supply for refill or storage. Micro Matic Valve Store the original sealed container in a cool well-ventilated area. DO NOT store for prolonged periods in direct sunlight. DO NOT tamper with the Micro Matic valve or the security seal. DO NOT contaminate the container with water or any foreign matter. After each use of the product, please ensure that the Micro Matic coupler delivery system and hoses are disconnected, triple rinsed with clean water and drained accordingly. When the contents of the container have been used, please return the container to the point of purchase. The container remains the property of CONQUEST CROP PROTECTION PTY LTD. Returnable Containers Store in the closed, original container in a cool, well-ventilated area. DO NOT store for prolonged periods in direct sunlight. Storage must be secure so that contents cannot be tampered with. All locks and/ or seals must be in order. If locks or seals are broken prior to initial use then the integrity of this product cannot be assured. If this occurs CONQUEST CROP PROTECTION PTY LTD should be advised immediately. This minibulk container is reusable and remains the property of CONQUEST CROP PROTECTION PTY LTD. DO NOT rinse empty container. Empty contents fully into application equipment. Close all valves and return to the point of supply for refill or storage. No other liquid, solid or pesticide product should be put into it. When empty return to CONQUEST CROP PROTECTION PTY LTD for cleaning, relabelling and refilling. drumMUSTER containers This container can be recycled if it is clean, dry, free of visible residues and has the drumMUSTER logo visible. Triple-rinse container for disposal. Dispose of rinsate or any undiluted chemical according to state legislative requirements. Wash outside of the container and the cap. Store cleaned container in a sheltered place with cap removed. It will then be acceptable for recycling at any drumMUSTER collection or similar container management program site. The cap should not be replaced, but may be taken separately.

Safety Directions:	Product is harmful if swallowed. Attacks the eyes. Repeated minor exposure may have a cumulative poisoning effect. Protect eyes while using. When preparing spray and using the prepared spray, wear elbow length chemical-resistant gloves and face shield or goggles. Wash hands after use. After each day’s use, wash gloves, face shield or goggles and contaminated clothing.

First Aid Instructions:	If swallowed, do NOT induce vomiting. If swallowed, splashed on skin or in eyes, or inhaled, contact a Poisons Information Centre (Phone Australia 13 11 26, New Zealand 0800 764 766) or a doctor at once. Remove any contaminated clothing and wash skin thoroughly. If swallowed, activated charcoal may be advised. Give atropine if instructed. If in eyes, hold eyes open, flood with water for at least 15 minutes and see a doctor.

First Aid Warnings:	

DIRECTIONS FOR USE

CROP	ACTION	STATE	RATE (High volume)	WHP	CRITICAL COMMENTS
APPLES Jonathan, Delicious	Advancement of maturity, improvement of red colour	Qld, NSW, Vic, SA, WA only	28 to 52 mL PLUS recommended rate of a suitable wetter (refer to compatibility section) per 100 L water	7 days	Ensure fruit has reached marketable size before treatment and keep trees under observation after spraying. Apply 2 to 3 weeks before normal harvest period and 7 to 14 days before desired harvest date. Ensure fruit is picked at the correct stage of maturity, as fruit not harvested will quickly become over-ripe. Note: For best results spray when temperatures are between 15° and 32°C. Continuing low temperatures will advance maturity but may reduce colouration, so use lower rate. Use higher rate for quicker response. Add a "stop-drop" to prevent premature loosening of fruit. Thorough coverage is essential. Apply to fruit only for the fresh fruit market or short term storage.
Tydeman's Early		Tas only	20 mL/100 L water		
Gravenstein, Golden Delicious, Jonathan and Red Delicious	Thinning*	Vic, SA only	12 mL PLUS recommended rate of a suitable wetter (refer to compatibility section) per 100 L water		Apply at full bloom OR up to 1 week following full bloom. A second thinning spray 10 to 14 days after the ETHEPHON 900 spray may be necessary. On Gravenstein and Golden Delicious apply carbaryl or 5 to 7.5 ppm NAA (use higher rate for maximum thinning). On Jonathan and Red Delicious apply carbaryl or 4 ppm NAA.
Golden Delicious, Stark Crimson and Legana		Tas only	28 mL PLUS recommended rate of a suitable wetter (refer to compatibility section) per 100 L water		Apply at the balloon blossom stage using a high volume sprayer at 4000 L/ha. DO NOT apply if rain is imminent. DO NOT use in sequence or in mixtures with NAA. If maximum temperatures are below 13°C after spraying, inadequate thinning may result, or if above 18°C excessive thinning may result.
Golden Delicious, Red Delicious, Jonathan, Granny Smith	Thinning*	WA only	28 to 32 mL PLUS recommended rate of a suitable wetter (refer to compatibility section) per 100 L water		Only use high concentration when heavy set expected.
Lady William			36 to 52 mL PLUS recommended rate of a suitable wetter (refer to compatibility section) per 100 L water		***Note: For all thinning applications: The complex nature of fruit set and the possible variable action of chemical thinners due to weather conditions, make it difficult to give set recommendations and growers should consult their local agronomist.**
All Varieties	Aid complete removal of fruit from trees and encourage a biennial bearing habit (Excessive vegetative growth will be suppressed and the following bloom stimulated.)	NSW, SA, WA only	52 to 108 mL PLUS recommended rate of a suitable wetter (refer to compatibility section) per 100 L water	7 days	Apply just prior to full bloom OR 5 to 6 weeks later during early morning or late afternoon when slow drying conditions occur. Ensure thorough coverage of foliage and flowers or fruit. **Note:** Under normal weather conditions use lower rate for Delicious and higher rate for Jonathans as they are difficult to de-fruit. Consult the local Department of Agriculture for specific recommendations on other varieties. Warm weather following treatment will improve results, but if temperatures below 18°C prevail after spraying, fruit removal may be reduced, in the latter case use a higher dose rate. Fruit will loosen in 7 to 10 days and thinning should be complete within 2 to 3 weeks. Limbs can be lightly shaken to aid removal after this time.
	Retard vegetative growth and stimulate flowering of young apple trees in the following season.		52 to 108 mL PLUS recommended rate of a suitable wetter (refer to compatibility section) per 100 L water		Apply from full bloom to 6 weeks after full bloom. Ensure thorough coverage. Trees should be large enough to support an increased crop of apples before being treated. Increase rate towards 108 mL/100 L to maximise thinning and stimulation of blooms during the following season. **Note:** Better results will be achieved if daminozide at 1000 ppm is added. DO NOT apply if harvesting fruit in same season as flowers or fruitlets will be partially or completely thinned.

CROP	ACTION	STATE	RATE (High volume)	WHP	CRITICAL COMMENTS
BARLEY	Anti-lodging	Qld, NSW, Vic, Tas, WA only	268 or 400 mL/ha	1 day	Use the higher rate on tall, vigorous crops, on varieties susceptible to heavy lodging and on irrigated crops. Apply once only, between early to late boot stage, but before awns or spikes emerge. DO NOT apply to crops under moisture or disease stress or to crops that have already lodged. DO NOT apply if rain is expected within 4 hours or if temperature is less than 18°C.
Barley varieties: Weeah Malebo Parwan only		SA only			
CHERRIES: Ron's Seedling, St. Margaret, Napoleon, Florence	Promote evenness of maturity; early colour development	NSW only: young district	16 mL/100 L water	7 days	**Treatment with ETHEPHON 900:** Apply when approximately 20% of the fruit show pink to red colour development, normally 7 to 10 days before harvest. Ensure thorough coverage of leaves and fruit. **Note:** High temperature at spraying or following spraying may accelerate results. DO NOT spray when mean daily temperatures exceed 32°C. DO NOT spray when rain is expected within 24 hours OR when temperatures are low (17°C or less) as this will delay or reduce the effect of ETHEPHON 900. Fruit will mature 3 to 5 days earlier than normal and will be loosened to allow easier harvesting. A high proportion of fruit will readily separate from the stalk when harvested.
		Orange/ Bathurst district	32 mL/100 L water		
TABLE GRAPES Barlinka	To promote early uniform colouring	NSW, SA only	12 to 16 mL PLUS recommended rate of a suitable wetter (refer to compatibility section) per 100 L water	14 days	Apply when 5 to 30% of the berries are coloured (2-4 weeks prior to expected harvest). Use the higher rate to maximise the colouring effects required. Ensure thorough coverage of bunches although the foliage need not be completely covered. **Note:** ETHEPHON 900 may slightly reduce firmness of grapes. DO NOT use on grapes intended for long storage.
Red Emperor, Red Prince, Red Malaga, Cardinal, Muscat of Hamburg		NSW, Vic, SA, WA only	23 to 32 mL PLUS recommended rate of a suitable wetter (refer to compatibility section) per 100 L water		
Flame Seedless		WA only			
Midnight Beauty, Sable Seedless, Superior Seedless		All States			
WINE GRAPES Semillon	Aids to mechanical harvesting	NSW only	32 to 104 mL PLUS recommended rate of a suitable wetter (refer to compatibility section) per 100 L water	7 days	Apply 7 days before expected harvest. Thorough coverage of upper and lower leaf surfaces is essential. **Note:** Some leaf yellowing and leaf fall, which is not detrimental to vines, may occur. The concentration to use will depend on a number of factors such as seasonal conditions, crop size, weather conditions, before and after application, and trellis type. Therefore, before applying consult the local Department of Agriculture for specific recommendations.
MANDARINS Imperial	Thinning to increase fruit size, to reduce size of heavy crop and to even out the production cycle	Qld, NSW, SA, WA only	28 to 32 mL/ 100 L water	Not re-quired	Apply during the early stage of fruit development for thinning and correction of the habit of alternate heavy and light crops. Apply as foliar spray when fruitlets are about 10 to 15 mm in diameter and when natural fruit drop is occurring. This is usually in November in Qld, December in SA and intermediate in NSW, WA and Vic. Weather conditions influence the degree of thinning and care must be taken not to over-thin. **Note:** Fruitlets should fall off 7 to 14 days after application. Aim to apply 13 to 15 L of spray per 4 to 5 m high tree. Use the higher rate when a very heavy crop is evident. DO NOT apply in cold weather (less than 18°C) OR when rain is likely within 1 to 2 days of spraying. DO NOT add surfactants or wetting agents as leaf fall may be increased. See also General Instructions.
		Vic only	20 to 28 mL/ 100 L water		
ORANGES Navel		NSW, WA only	28 to 32 mL/ 100 L water		
Valencia		NSW, SA, WA only			
		Vic only	32 to 36 mL/ 100 L water		

CROP	ACTION	STATE	RATE (High volume)	WHP	CRITICAL COMMENTS
MACADAMIA NUTS Own Choice	Aid harvesting by promoting uniform nutfall	NSW and WA only	132 mL PLUS recommended rate of a suitable wetter (refer to compatibility section) per 100 L water	7 days	Apply late March to early May when nuts are mature. Vary rate according to degree of loosening required. **Note:** Nuts will be stimulated to fall within 10 to 14 days after spraying. Mechanical shaking may be used 7 to 10 days after spraying. Ensure thorough coverage of foliage and nuts. Ensure tops and insides of trees are adequately sprayed. A small quantity of older leaves will fall after treatment, but production will not be adversely affected. DO NOT use on Teddington variety.
H2 Variety			44 to 84 mL PLUS recommended rate of a suitable wetter (refer to compatibility section) per 100 L water		
PEACHES	Advancement and concentration of maturity	Vic only: Goulburn Valley	12 mL PLUS recommended rate of a suitable wetter (refer to compatibility section) per 100 L water	6 weeks	Apply once as foliar spray after commencement of the final fast growth stage. Timing depends on variety. Determine by measuring twice weekly, fruit circumference, of 20 tagged fruit/block. After rapid growth stage determined, wait 3 to 4 days for further confirmation, then spray. Thorough coverage is essential. **Note:** Instances have been recorded where this product, when applied in peaches at apparently the correct time, has resulted in premature fruit drop, fruit gumming and fruit splitting. See also General Instructions.

CROP	ACTION	STATE	RATE		WHP	CRITICAL COMMENTS
			General	Boom Sprayer		
PINEAPPLES (plus Urea)	Initiation of flowering	Qld, WA only	64 mL + 5 kg Urea/100 L water (Apply 30 mL solution/ plant)	1.28 + 100 kg Urea in 2000 L water/ha (Boom spray)	7 days	Apply in March. **Note:** Rate should be doubled for plant crops which are growing vigorously at the time of application.
			32 mL + 5 kg Urea/100 L water (Apply 30 mL solution/ plant)	640 mL + 100 kg Urea in 2000 L water/ha (Boom spray)		Apply in May-June OR September-October. **Note:** See above – February/March application of Urea.
PINEAPPLES (without Urea)	Initiation of flowering in ratoon		20 mL/ 10 L water (Apply 30 mL solution/plant)	4.8 L in 2000 L water/ha (Boom spray)		Apply February-March. **Note:** Use on the final crop in the block before eradication of the crop. Pineapples treated at the above time will be ready for picking 7 to 10 months after application.
			6 mL/ 10 L water (Apply 30 mL solution/plant)	1.2 L in 2000 L water/ha (Boom spray)		Apply in May-June OR September-October. **Note:** See above – February/March application without Urea.

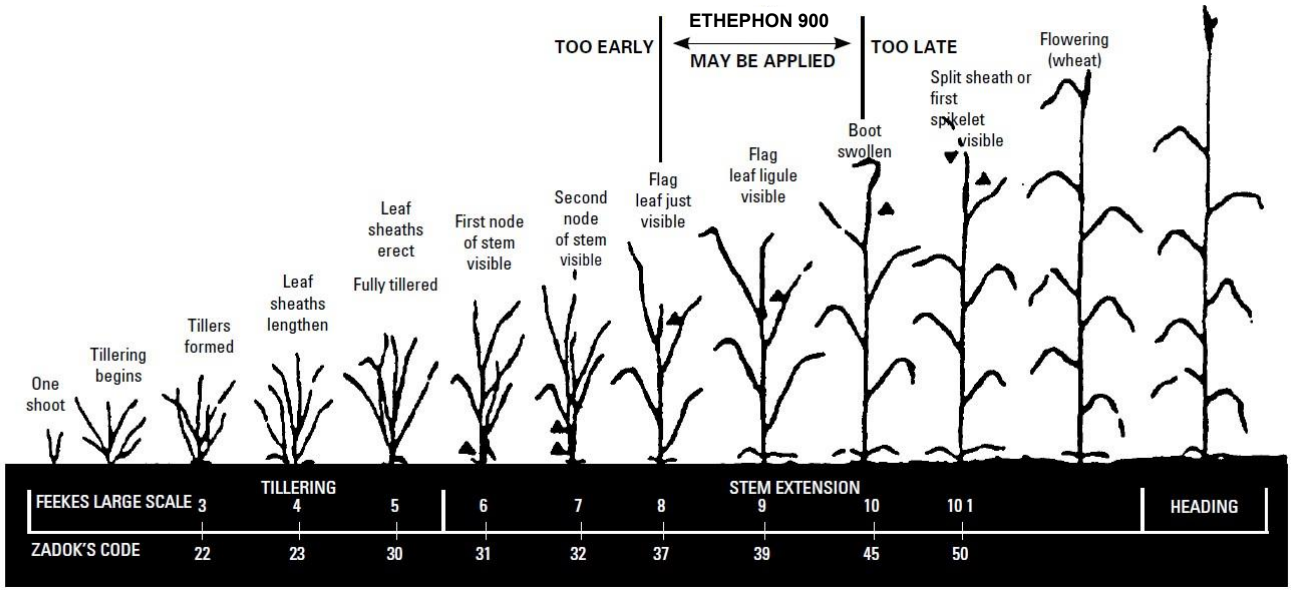
PINEAPPLES	Fruit ripening	Qld, WA only	-	1.36 L in 1000 L water/ha	7 days	ETHEPHON 900 for ripening should only be used on even crops successfully induced for flowering with ETHEPHON 900. DO NOT use on fields intended for ratoon production. Treatment should be made when the forced fruit are beginning to show the first colour break. An initial harvest may be necessary to remove more advanced fruit before applying ETHEPHON 900. The remaining treated fruit will be ready for harvest at least 7 days following the ETHEPHON 900 ripening application. **Note:** DO NOT use on fruit intended for the fresh fruit market. ETHEPHON 900 for ripening is NOT SUITABLE FOR USE ON SUMMER PLANT CROPS because of scattered fruiting and high risk of forcing young suckers. Where natural fruiting has occurred prior to chemical induction, these natural fruit must be picked before ETHEPHON 900 ripening. Treatment too early can result in a loss of yield and a reduction in fruit sugar levels.

CROP	ACTION	STATE	RATE (High volume)	WHP	CRITICAL COMMENTS
SUGARCANE	Cane ripening	Qld, NSW, WA only	800 mL /ha	6 weeks	Use in March-April to accelerate ripening in cane and increase c.c.s. Use on cane planted for early harvest, with harvest no later than August. Apply to actively growing and non-stressed cane with at least eight non- stressed green leaves. Cane varieties Q115, Q119, Q137, Q124, Q96, H56-752 and CP44-101 have all shown high to moderate response to ethephon. Shortening of some internodes and yellowing of leaves may occur without any effect on cane yield. Test any new varieties prior to application.
TOMATOES	Accelerate ripening, increasing yield	All States	960 mL in 440 to 880 L water per hectare	7 days	Apply once in the season. Ensure thorough coverage of fruit and foliage, when fruit is 5 to 30% pink or red. To determine this pull a few plants, shake off all fruit, weigh and determine above percentage. Optimum harvest maturity is expected 14 to 21 days after spraying. DO NOT use on greenhouse crops. **Note:** Temperatures below 18°C retard colour development and may extend the interval between treatment and harvest. Treatment may cause some yellowing of foliage or defoliation. Sun scald of exposed fruit may occur under high temperature conditions following treatment.

CROP	ACTION	STATE	RATE/HA	CRITICAL COMMENTS
COTTON	Defoliation, acceleration of boll opening	Qld, NSW, NT & WA only	1.6 L to 2.4 L in min. 20 L water	Application to be made when there are sufficient unopened bolls present to obtain the desired yield. Higher rates are used when the following conditions apply: a. on stressed plants b. on a heavy crop with plenty of foliage present c. if mean day/night temperatures are likely to drop below 22°C within 5 days of application. Note that defoliation may be reduced under low temperature conditions
	Pre-conditioning of crop before a normal defoliation is to occur		1.04 L in min. 20 L water	Application to be made when there are sufficient unopened bolls present to obtain the desired yield. The defoliant can then be applied at a time interval 4-7 days later. Ensure thorough coverage of bolls.
	Defoliation #		400 mL to 800 mL	Use in a tank mix with a registered rate of Conquest Mace®. Apply when there are sufficient unopened bolls to produce the desired yield. Total application volume should be no less than 20.0 L/ha. Ensure thorough and uniform coverage of bolls and leaves. # This mixture will also provide some acceleration of boll opening, however a subsequent application of a boll opener may be required to complete boll opening.

GENERAL INSTRUCTIONS

IMPORTANT:
BARLEY: Use only on vigorously growing and potentially high yielding crops which are likely to lodge.



IMPORTANT

Apples – Advancement of fruit maturity and improvement of red colour:

- Ensure fruit has reached marketable size before treatment and keep trees under observation after spraying.
- Ensure fruit is picked at the correct stage of maturity, as fruit not harvested will quickly become over-ripe.
- Continuing low temperatures will advance maturity and colouration; continuing warm to high temperatures, both day and night, will advance maturity but may reduce colouration.
- Apply to fruit only for the fresh fruit market or short term storage.

Apples – Thinning:

The complex nature of fruit and the possible variable action of chemical thinners due to weather conditions, make it difficult to give set recommendations and growers should consult their local agronomist.

Apples – Fruit Removal:

- Apply to trees to remove unwanted fruit and encourage a biennial bearing habit. Excessive vegetative growth will be suppressed and bloom the following season stimulated.
- Weather conditions are very important – warm weather following treatment will improve results, but if temperatures below 18°C prevail after spraying, fruit removal may be reduced. In the latter case, use the higher dose rate.
- Fruit will loosen in 7-10 days and thinning should be complete within 2-3 weeks. Limbs can be lightly shaken to aid removal after this time.

Barley:

Use only vigorously growing and potentially high yielding crops which are likely to lodge.

Imperial Mandarins and Valencia Oranges:

Apply during the early stage of fruit development for thinning and correction of the habit of alternate heavy and light crops. Weather conditions influence the degree of thinning and care must be taken not to over-thin.

EXCLUSION OF LIABILITY: As the degree of thinning may vary according to the conditions and over-thinning is possible, the decision to incur these risks is taken by the user, and the manufacturer and vendor exclude themselves from all conditions, representations, warranties, whether expressed or implied by statute or otherwise and accept no responsibility for any losses which follow from the use of the product on mandarins or oranges as far as this is legally possible under the Trade Practices Act or any State legislation.

Cotton:

A foliar spray with ETHEPHON 900 will accelerate opening of mature unopened bolls and enhance defoliation, which can result in earlier harvest and increased recoverable yield and quality. Some premature drop of small immature bolls may occur. Harvest at optimum boll opening and optimum defoliation. Too late harvest may reduce quality and lint.

APPLICATION – COTTON

Do not apply before sufficient mature unopened bolls have developed to produce the desired yield of cotton. Bolls are mature when the seed coat turns light brown, the embryo fills the seed cavity with an abundance of creamy colour and cotyledons are well defined.

TREATMENT SEQUENCE – COTTON

- Light canopy: Apply ETHEPHON 900 then apply defoliant 4 to 7 days later.
- Moderate to heavy canopy: **First** apply a pre-conditioner, then apply ETHEPHON 900 as soon as sufficient leaves have dropped to expose the large bolls, usually 4 to 10 days later.

APPLICATION METHOD – COTTON

Apply by placement technique under the following range of conditions to achieve a target droplet density of 60 droplets per square cm.

Wind Direction: Cross Wind Wind speed range: 6-20 kph
Air Temperature: Maximum 32°C Delta t: Maximum 10°C

Sugarcane:

ETHEPHON 900 may be applied by air or ground spray equipment. Apply in 30 L water/ha by air, and 110- 150 L water/ha by ground spray equipment. Apply during March-April on cane due for harvest no later than August. Consult your local Conquest representative.

Tomatoes:

- Temperatures below 18°C retard colour development and may extend the interval between treatment and harvest.
- Treatment may cause some yellowing of foliage or defoliation.
- Sun scald of exposed fruit may occur under high temperature conditions following treatment.

MIXING

Half fill the spray tank with water, add the required amount of product then the remainder of water and mix well. Do NOT use alkaline water.

EQUIPMENT USAGE AND CLEANING

This product is corrosive to metals. Mix only the quantity of spray required for immediate use and do not allow to stand in metal containers for longer than 2 hours. Flush equipment thoroughly after use. Use only properly calibrated and maintained spraying equipment.

COMPATIBILITY

Apples, Table Grapes, Wine Grapes, Macadamias and Peaches

Certain applications in the above crops require the addition of a surfactant (wetter) when using ETHEPHON 900. In such cases, select a wetter that is registered for use with plant growth regulators (e.g. Wetter 1000) and apply at the recommended rate for the crop situation. If unsure of the appropriate product or product rate, seek further advice from Conquest Crop Protection Pty Ltd, the surfactant manufacturer, your chemical distributor or other advisor.

DO NOT tank mix this product with sodium chlorate. This mixture will, when heated, emit toxic chlorine fumes.