Crop Care has an extensive range of products for Australian apple and pear growers. The following products are part of the range of solutions Crop Care can offer to help you win the battle against both apple and pear diseases, pests and weeds.

**PROVIDES STRONG INHIBITION OF SPORE GERMINATION**
Extremely active on black spot. Controls bitter rot.
No known resistance.

**LOW HAZARD TO BENEFICIALS**
Extremely soft on a wide range of local and introduced beneficial species.

**EXCELLENT FRUIT FINISH**
Does not cause russetting and minimizes the risk of skin damage when used as directed.

**RAINFAST FORMULATION**
Formulated with fine particles for even spray distribution, improved adhesion and excellent rainfastness. Dew or rain will provide partial redistribution of the spray droplets, which provide protection to new growth up to 48 hours after application. Rainfast once dry. Protects for longer than most in wet weather. Two times more rainfast than most commonly used protectant fungicides.

**COST EFFECTIVE IN APPLES**
Low use rates. This product can also be used as a protectant addition to the DMI (Group 3) fungicides in spray programs.

**FLEXIBLE APPLICATION**
Treated apples can be exported to a range of countries including the UK and Taiwan.

**APVMA PERMIT 12865**
For control of Alternaria spp. in apples. Withholding period 7 days (valid to 30 June 2016).
ACTIVITY
Mode of action is different from DMI fungicides. Stroby WG is a Group 11 fungicide. Controls black spot by the prevention of spore germination and sporulation. Controls powdery mildew through the prevention of spore germination and penetration into the leaf surface.

PROTECTION
Protects leaves and fruit.

APPLICATION
For optimum results apply as a preventative program of three sprays in a period from pink bud to early fruit development. Not affected by temperature fluctuations, can be used in hot and cold conditions. Maximum 3 sprays per season.

LOW HAZARD TO BENEFICIALS
Recommended in IPM programs. Safe to beneficial insects including bees. Non-toxic to earthworms.

HIGHLY RAINFAST
Unsurpassed rainfastness. Rainfast once dry on plant as it adsorbs into the waxy cuticle where it is relatively impervious to rainfall.

EXCELLENT FRUIT FINISH
Does not cause russetting and minimizes the risk of skin damage when used as directed.

WITHHOLDING PERIOD
6 weeks.

EXCELLENT IPM PROFILE
Oversees and Australian trials have demonstrated Captan’s safety to key predators in orchards including Typhlodromus pyri. Safer than many other broad spectrum fungicides.

MULTI SITE MODE OF ACTION
Low resistance risk.

RAINFASTNESS
Re-entry period when spray droplets are dry.

FRUIT QUALITY
Excellent fruit finish and ideal for summer cover sprays.

EXCELLENT GRANULAR FORMULATION
Good compatibility. Economical.

WITHHOLDING PERIOD
Do not harvest for 7 days after application. Maximum 5 applications per season.

OTHER FUNGICIDE PRODUCTS

EMBLEM: Label use in apples for control of White Root Rot (Rosellinia necatrix).

ZIRAGRANZ: Label use in apples and pears for control of Black Spot (Venturia spp.)
FOR POST-HARVEST DIPPING AND PREVENTION OF STORAGE ROTS.

APPLICATION
To minimise the development of post-harvest rots, handle fruit carefully to avoid fruit injury and dip promptly after harvest. Remove any infected fruit from the packing house immediately and destroy. When dipping, allow sufficient time to thoroughly wet the fruit. Top up dip with 100 mL Corvette Flowable in 100 L of water. This use is subject to an CropLife Australia fungicide resistance management strategy:

RESISTANCE MANAGEMENT
1) For the last pre-harvest spray, use a fungicide with a different mode of action to the fungicide planned for use as a post-harvest treatment.
2) Where alternative fungicide groups are available, rotate to use as many different modes of action as possible.

SUPERIOR WG FORMULATION
Excellent dust free formulation.

SPECIFIC MITICIDE
Effective on Two Spotted Mite and European Red Mite in apples. Highly active on mobile mites.

USE BETAMITE EARLY
Early treatment of low level populations is recommended as the most effective means of control. Betamite is relatively slow acting but mite activity decreases and feeding ceases after contact. Contact and 2 week residual control offering powerful control that lasts.

VAPOUR ACTION
Works best in warm to hot weather working as a fumigant to kill mites.

NO RECORDED RESISTANCE
WITHHOLDING PERIOD
Do not harvest for 7 days after application.

APPLICABLE AGAINST TWO SPOTTED MITE, EUROPEAN RED MITE AND BRYOBIA MITE IN APPLES AND PEAR.

APPLICATION
Apply at an application rate of 20mL/100L where biological control is being practised. Apply as required to assist control by the biological agent(s), determined by frequent field checks conducted by appropriately trained personnel. Apply at a rate of at 40mL/100L where biological control is not being practised. Apply at the first sign of mite activity, well before a dense infestation develops. Repeat as required, subject to resistance management.

SAFE FOR IPM
If used as directed.

WITHHOLDING PERIOD
Do not harvest for 2 days after application.

CONTROLS TWO SPOTTED MITE AND EUROPEAN RED MITE IN APPLES AND PEARS

APPLICATION
Irrespective of whether biological control is being practised, apply when mites are evident but well before economic damage levels. Best used in a tank mix with a registered adulticide such as Torque Miticide.

SAFE TO IPM
If used as directed on the label.

WITHHOLDING PERIOD
Do not harvest for 3 days after application.

INSECTICIDES

ASTRAL 250: Label use in pears for control of long tailed mealy bug.

LANNATE: Label use in apples for control of light brown apple moth (Epiphyas postvittana), codling moth (Cydia pomonella), budworm (Helicoverpa spp.), thrips (Thysanoptera) and apple dimpling bug (Campylomma livida).

HYMAL: Label use in apples and pears for control of apple leaf hoppers (Typhlocyba foggatti), codling moth (Cydia pomonella), thrips and woolly aphid (Eriosoma lanigerum).

MASCOT DUO: Label use in apples and pears for control of apple weevil (Otiorhynchus criciformis) and garden weevil (Phyllostus callosus).
GROWTH REGULATORS

DORMEX IS A PLANT GROWTH REGULATOR, WHICH MAY BE USED IN APPLES TO INCREASE AND ADVANCE BUDBURST AND FLOWERING.

ACTION
Earlier and condensed flowering.
Uniform growth, leading to better crop management – i.e. reduced need for thinning sprays.
Build up of desired framework.

YIELD
Possible yield increases and larger fruit, in areas of low chilling.

WITHOLDING PERIOD
Not required when used as directed.

ACTIVITY
Nail is a fast acting contact herbicide designed to improve control of broadleaf weeds when tank mixed with common knockdown herbicides.

IMPROVES CONTROL OF ANNUAL BROADLEAF WEEDS
Excellent on Marshmallow.

IMPROVES SPEED OF BROWNMOUT
When tank mixed with glyphosate improves speed of burnout.

NO PLANT-BACK RESTRICTIONS OR SOIL CARRYOVER COMPATIBILITY
Compatible with all knockdown herbicides.

EASY, LOW USE RATES
Fewer containers to dispose of.

COMPLETE IN ONE PASS
Knockdown weed control.

WITHOLDING PERIOD
Not required when used as directed.

HERBICIDES

NON SELECTIVE HERBICIDE THAT WILL KILL MOST WEEDS AND PLANTS.

USE
To kill most emerged weeds and plants in apple and pear orchards.

APPLICATION
Apply as a directed or shielded spray or using wiper equipment. Do not apply as a spray near trees or vines less than 3 years old unless they are effectively shielded from spray and spray drift. Do not allow wiper surface to contact any part of the tree, vine or plant.

WITHOLDING PERIOD
Not required when used as directed.

OTHER HERBICIDE PRODUCTS

BIFFO: Label use for non-residual control of broadleaf and grass weeds in fruit crops and other non agricultural areas.

EXERT 520: Label use for post emergent grass weed control in pome fruit.

SHIRQUAT: Label use for post emergent grass weed control in pome fruit.

SIMAZINE: Label use in apples and pears for control of annual ryegrass, annual thistles, barley grass, bindy-eye, brome grass, capeweed, chickweed, common sowthistle, creeping oxalis, fathen, geranium, ivyleaf speedwell, nettles, potato weed, powell’s amaranth, redroot amaranth, redshank, shepherd’s purse, slim amaranth, turnips (not NSW), wild mustard, wild oats, winter grass, wireweed (not Tasmania) and suppression of soursob.
OTHER CROP CARE PRODUCTS

**ACTIVITY**
Multi purpose adjuvant containing a pH indicator for use as an acidifying, buffering, penetrating, wetting, spreading and compatibility aid.

**pH INDICATION**
Addition of Primabuff to the spray tank will acidify the water which will turn a pink-red colour once the optimal pH range of pH 4.5 - 5.5 is reached.

**WETTING AND SPREADING**
Automatically reduces the surface tension of the spray mixture allowing the spray droplets to flatten and spread, giving greater coverage and efficacy.

**COMPLEXES HARMFUL SALTS THAT ARE DETRIMENTAL TO THE PERFORMANCE OF CROP PROTECTION CHEMICALS**

**PENETRATION**
Built-in penetrator moves the pesticide through the waxy cuticular layer, ensuring better pesticide performance.

**ACIDIFICATION AND BUFFERING**
After adding Primabuff to the spray water, the water becomes increasingly acidic, turning pink, once the optimum pH is reached. If over-addition of Primabuff occurs, the spray water is automatically buffered at approximately pH 3.

**COMPATIBILITY AID**
Primabuff allows various spray combinations eliminating additional sprays and helping to save costs.

**ACTIVITY**
Shirwet 600 is a non-ionic surfactant used with herbicides, insecticides and fungicides.

**SAFE TO USE**
Soft on horticulture crops due to low use rate. Reduces the number of spray droplets bouncing off leaves.

**STICKABILITY**
Ensures the spray solution sticks to the target leaf and spreads out evenly.

**GREATER COVERAGE**
Enhances coverage of contact and protectant pesticides.

**PERFORMANCE**
Maximises performance when concentrate spraying. Increased speed of activity, penetration and uptake of systemic pesticides.

**ACTIVITY**
Supercharge enables increased control of weeds when used in conjunction with Nail 240EC Herbicide.

**HIGHLY EFFECTIVE**
SlugOut is a premium granular bait formulation that has the active ingredient in the edible outer coating.

**EXCELLENT COVERAGE**
Smaller baits provide better coverage per square meter compared to other available products.

**VERSATILE APPLICATION**
Spot treatment, broadcast or direct drilling options.

**EXCELLENT WEATHERABILITY**
A granular formulation that does not absorb water makes it highly rainfast. Trials have shown no breakdown up to 60mm of rain.

**SAFETY**
Dyed green to deter birds and generally unattractive to dogs and cats.
### Fungicide Program for Pomefruit

<table>
<thead>
<tr>
<th>DOMINANT DISEASE(S)</th>
<th>CROP STAGE</th>
<th>Greentip Pre-bloom</th>
<th>Blossoming (Pink to petal fall)</th>
<th>Fruit development</th>
<th>Pre-harvest</th>
<th>Post-harvest dip</th>
<th>Leaf fall</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alternate</td>
<td></td>
<td>Delan</td>
<td>Stroby</td>
<td>Delan Viva</td>
<td>Captan</td>
<td></td>
<td>Urea</td>
</tr>
<tr>
<td>Black spot</td>
<td></td>
<td>+/- Viva x2</td>
<td>x2</td>
<td>+ Viva x2</td>
<td>Captan</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Powdery mildew</td>
<td></td>
<td>Copper oxchloride</td>
<td>Stroby</td>
<td>Viva x2</td>
<td>Bupirimate x2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gladiolus</td>
<td></td>
<td></td>
<td>or Viva x2</td>
<td>or Pristine x2</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bitter rot and</td>
<td></td>
<td>Delan</td>
<td>x2</td>
<td></td>
<td></td>
<td>Corvette</td>
<td></td>
</tr>
<tr>
<td>storage rot</td>
<td></td>
<td></td>
<td>or Viva x2</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Blue mould</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Corvette or</td>
<td></td>
</tr>
<tr>
<td>All diseases above</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Imazacure x2</td>
<td></td>
</tr>
<tr>
<td>(full program)</td>
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<td></td>
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</tr>
</tbody>
</table>

**Key:** +/− Viva should be mixed with Delan if there has been an infection warning for black spot and the spray interval has extended beyond 10 days, during blossoming, or there is carry over or primary infection of powdery mildew. If Alternaria leaf blotch or fruit spot is likely to be a problem, apply 2 sprays of Viva instead of 2 sprays of Stroby during mid to late blossoming for black spot and powdery mildew control, and 2 sprays of Pristine for Alternaria leaf blotch and fruit spot as well as black spot and powdery mildew control during early fruit development. Cuprofix is not registered on apples. Use copper oxchloride instead on apples. Apply Bupirimate only to varieties highly susceptible to powdery mildew in late summer.

**Resistance:** All uses comply with CropLife recommendations for fungicide resistance management. Use Corvette in preference to Imazacure if there is a history of use of Imazacure against blue mould in the packing shed or Botrytis spp and/or Gloeosporium spp rots are also a problem.

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**Withholding Period:** All products are recommended at times within the spray program that comply with Australian withholding periods and recommended overseas market withholding periods.

**Fungicide Resistance Management:** The maximum number of sprays as recommended by CropLife is always adhered to in the spray program to minimise the risk of the development of fungicide resistance.

**Integrated Pest Management:** We have considered the effect of fungicides on biological control agents such as predatory mites. Fungicides which are known to have an adverse affect are generally not included in the spray program unless there is no alternative product with a better IPM profile.

**Mode of Action:** To further reduce the chance of fungicide resistance developing, we have recommended products with different modes of action where possible.

**Crop Effects:** Where there is a risk of increased russetting or other undesirable affects after the use of a product we have recommended alternative products.

**Effects on Pollination:** Products that have an adverse affect on bees, are not recommended in the spray program during flowering.

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