



Post harvest

for top and stone fruit

#ForOurGrowers

Pest and disease control of new orchards

It is very important to minimise the build-up of pest and disease at the end of the season. Pests and pathogen inoculum that overwinter will make control more challenging for the next season and increase the risk of crop damage.

Agrovista Fruit agronomists are happy to help monitor and advise on the best approach for the farm.

Scab control

All apple and pear orchards which had scab during the growing season should receive at least one application of a protectant fungicide post-harvest, in order to prevent the build-up of inoculum for next year. If the weather conditions are favourable for scab development, the senescing leaves become susceptible to infection, as the cuticle gradually cracks with age.

Even if very low levels of leaf scab are present post-harvest, scab can build up to high levels by leaf-fall causing problems.

Curative fungicides should not be applied during the autumn period, as the fungus is going through its sexual stage and there is a risk that resistant strains may develop as DNA re-combines.

We recommend applying Delan Pro, Dithianon or Captan. The addition of an adjuvant specifically designed to aid spray retention and spreading would improve the persistence of the fungicide.



It is likely that extension growth will have ceased post-harvest and so an adjuvant will ensure that the spray application is retained on the leaf for as long as possible – you should discuss the options with your Agrovista agronomist.

Depending upon the scab risk and prevalence, weather and the length of time between harvest and leaf fall, subsequent applications may be required.

Application rates

Delan Pro	2.5l/ha
Dithianon	0.5kg/ha
Captan	2kg/ha

Applications of urea should be made during the leaf-fall period to orchards with low risk for Canker using a herbicide sprayer to direct the spray onto the leaf litter on the ground.

Urea applications accelerate the decomposition of the leaf litter and reduce the amount of scab inoculum available for next season.

However, applications of urea during leaf fall to the trees can delay the healing of leaf scars and increase the potential for canker infection.

Inhibited/Methylane Urea can be used, in order to adhere to Red Tractor standards, and applying the correct concentration is important: 50l urea/1000l.

This should be applied at a volume which is enough to wet the leaves, but not run-off.

Sweeping

Removal or mechanical degradation of leaf litter and fallen fruit from the orchard are two of the best ways to reduce the scab inoculum in the orchard.

We highly recommend using machines to sweep the litter from under the tree into the alley where it can be pulverised.

This operation can be performed from leaf fall until the end of February and can be achieved in a single pass with a pulveriser. It is important that the leaves are macerated as finely as possible.

A combination of fungicide applications, urea applications and sweeping will significantly reduce the amount of inoculum in the orchard for next season.

Canker control

In apple and pear orchards with significant canker infection risk, fungicides for control have to be applied and timed according to Fruit Insight Neonectria canker model.

Tebuconazole applications should be applied when infection risk is high during leaf fall (one application is legally allowed per season and not 3 as previously possible).

Applications of fungicides containing fludoxonil give good control of Neonectria canker, and so does Vintec (*T. atroviride* SC1), according to recent work in the UK and EU.

Captan applications provide suitable control and contact surface protection during lower infection risk intervals.

Applications of some phosphite-based products offer some fungal control and give a boost to the natural defence mechanisms and so, reduce the susceptibility to diseases. You should discuss with your local Agrovista agronomist about the suitable options for applications.

At the time of printing, copper fungicides do not hold approval on apples or pears for applications.

Apple powdery mildew

If trees are actively growing during the post-harvest period, it is important to apply mildew protection if the infection risk is significant, until growth stops. Otherwise, primary mildew can develop and affect the terminal buds.

Agrovista recommends applying a mildew protectant when Fruit Insight shows significant infection risk. Karma or potassium bicarbonate applications (as eradicants) should be made if lesions are present.

Anthonomus pyri (pear bud weevil)

Pear orchards with a history of pear bud weevil should be monitored carefully post harvest and an insecticide application for control should be made immediately at the first sign of activity.

Pear sucker

Pear orchards should be checked regularly between harvest and leaf fall for this pest. We recommend applying control if large numbers of nymphs are present. If sucker populations are allowed to build up during this period, the resulting sooty mould will seriously affect the quality of fruit bud for next season.

Making repeated applications of EpsoTop together with an organosilicone surfactant will also help contain the negative effect of the honeydew.

It is always best to consult with the Agrovista fruit team for the most suitable control options.

Bacterial canker in plum, apricot and cherry

Applications of some phosphites improve the nutrient balance of trees, give a boost to the natural defence mechanisms and so, reduce the susceptibility to diseases. Do not hesitate to discuss with your local Agrovista agronomist about the best options for applications.

At the time of printing, there are no approvals for copper fungicide applications on stone fruit crops.



Nutrition treatments



It is essential that trees receive good levels of nutrition during the period between harvest and leaf-fall to ensure they develop the best possible fruit bud for next season.

Foliar feeds: apple and pear

Agrovista recommends the following foliar applications in all apple and pear orchards; two applications of the following:

Agrovista Spring boost 3-5l/ha | Omex MicroMex 1-3l/ha

The first application should be made immediately post harvest and the second 10-14 days later. With both applications, add up to 5l/ha inhibited urea to improve uptake.

You should also make applications of ground-applied nitrogen to all apple orchards (not pear) immediately post harvest.

In addition, foliar applications should also address any nutrient deficiencies that were noted earlier in the season.

Ground applied fertiliser: apple

Cox, Bramley, Braeburn and other bitter-pit sensitive varieties should receive **200-300kg/ha of calcium nitrate**. Apply to Braeburn after first pick, do not wait until end of harvest. In extremely heavily-cropping orchards, the dose can be increased by up to 30%.

Orchards of **Gala and other dessert varieties which regularly crop heavily** (50t/ha+) should receive 100kg/ha of ammonium nitrate. For orchards which have had lighter crops this may be reduced or omitted altogether. Please contact your Agrovista agronomist to determine the correct option.

Please note that all of these ground fertiliser rates are broadacre rates, but should be applied only to the herbicide strip.

Foliar feeds: stone fruit

Agrovista recommends the following foliar applications in all plum and cherry orchards; two applications of the following:

Agrovista Spring boost 3-5l/ha | Omex MicroMex 1-3l/ha

The first application should be made immediately post harvest and the second 10-14 days later. With both applications, add **5l/ha inhibited urea** to improve uptake.

In addition, foliar applications should also address any nutrient deficiencies that were noted earlier in the season.

Ground fertiliser: stone fruit

Apply before the end of September either of:

- 250kg of calcium nitrate/ha, if only applied to the herbicide strips, then reduce to 70% of this rate
- 130kg of ammonium nitrate, if only applied to the herbicide strips, then reduce to 70% of this rate

Trees with moderate crops (6-8t) apply either of:

- 170kg of calcium nitrate/ha, if only applied to the herbicide strips, then reduce to 70% of this rate
- 85kg of ammonium nitrate, if only applied to the herbicide strips, then reduce to 70% of this rate

Trees with low crops and young cropping trees apply either of:

- 125kg of calcium nitrate/ha, if only applied to the herbicide strips, then reduce to 70% of this rate
- 65kg of ammonium nitrate, if only applied to the herbicide strips

Fertigation: stone fruit

- Needs to be finished before the end of September
- Apply the total over several fertigation events

Trees that carried heavy crops (10t)

- 150kg of calcium nitrate/ha
- Alternatively 100kg of Agrolution Special 23-10-23 or 120kg of Kristalon Blue/ha

Trees that carried moderate crops (6-8t/ha)

- 100-125kg of calcium nitrate/ha
- Alternatively 65-80kg of Agrolution Special 23-10-23 or 80-100kg of Kristalon Blue/ha

Trees with low crops and young cropping trees:

- 80-100kg of calcium nitrate/ha
- Alternatively 50-70kg of Agrolution Special 23-10-23 or 60-85kg of Kristalon Blue/ha

Apply the quantities over several irrigation events and use as little water as possible.