

AUTUMN & WINTER TIPS

BY EDDY DUNN

At the time of writing (mid-February) the Summer flush is coming to an end and we are now starting to set up for the Winter flush. Some of the Panama types are variable, but most are just starting to flower again, with peak flowering to happen in early April in the Panamas and Misty Gem. Sweetheart also usually have a similar timing.

The dry Summer has been affecting vine growth this season, and similar to last season the heat has been reducing fruit set in the Misty's. Panama's seemed to be unaffected by the heat and continue to set fruit, although a shower of rain really improves the growth of the crop. If fruit set in Misty's needs to be improved during the Summer period, overhead sprinklers used for cooling purposes on hot days should improve the set. These sprinklers can also be used for frost mitigation in Winter.

It is important to maintain vine health and push their nutrition as the vines load up with fruit in May. The longer vines maintain growth into the cooler months, the longer they continue to set and the better they handle the various physiological changes which occur with cooler than optimal temperatures. Especially as the soil temperature cools, vine growth slows, transpiration slows and if the vines are holding a crop then flowering will cease. Another reason to push vines coming into Winter is that virus levels build up as vine growth slows.

Some nutrients are taken up by mass flow and are therefore taken up less as transpiration slows. It is therefore beneficial to have higher levels of nutrient in the root zone during the cooler months. Other nutrients are actively taken up by the plant roots, which is also affected by transpiration rates. It has also been found that soil microbial activity is very important in the uptake of phosphorous, nitrogen and perhaps all nutrients. Total Grower Services has recently set up a micro-biological laboratory to look into these interactions. We have had some good results with the Petrik range of microbial products in passionfruit. Soil health has a big impact on the way vines grow. Pay attention to herbicide use also. It is recommended that glyphosate is not used on passionfruit in sandy soils.

Foliar applications are a means of supplementing crop nutrition and are a particularly useful tool in the cooler months as root uptake is slowed. It must be remembered that foliar sprays are only a supplement in passionfruit and the bulk of the nutrition comes through the roots. Passionfruit are hungry feeders and high levels of inputs through fertigation and side dressing are recommended to get the biggest crop. It is important that nutrient application is balanced, as too much nitrogen in the warmer months can result in excess vegetative growth and reduced flowering. Some elements which tie up very rapidly in the soil are best applied through foliar sprays.

The current dry Summer has meant that irrigated crops are a magnet for pests. Most pest life cycles increase with temperature, so it is good to visually check pest levels at least fortnightly from September to April and monthly in the Winter months. Pests to watch out for coming into the cooler months are green vegetable bug, mealybug, red scale, citrus rindborer and hemispherical scale. Spotting bug and passionvine mite are issues right now as these pests prefer an even temperature between Summer and Winter. Spotting bug is often controlled with Lepidex. There is now a permit to use Transform, which although expensive is soft on beneficials and also controls red scale. Passionvine mite prefers dry conditions and has been an increasing problem over the last 5 years. There are currently permits for Abamectin, Torque, Omite and a permit soon to come for Paramite (check apvma.gov.au for chemical registrations). Abamectin has been performing the best of these but be sure to apply with oil. Biopest oil @ 500mL/100L has been often used. Green vegetable bug is often a problem after nearby soybeans or similar crops are harvested. Unfortunately, there are currently no soft options for the control of vegetable bug. Lepidex is often used for this pest. One adult mealybug produces many eggs and therefore the mealybug population can increase very rapidly causing honeydew and deformed growth. Mealybug are difficult to control with chemicals, so it is better to reduce the application of disruptive sprays such as Lepidex and rely on parasites and predators to keep the mealybug population in check. Leptomastix and anagirus are common parasites of mealybug and Cryptolaemus is an effective predator of mealybug and scales.

Red scale secretes a toxin into the vine which can overcome vines as growth slows coming into Winter. As with mealybug it is best to reduce sprays as much as possible to let the parasites and predators manage the scale.

Aphytis are an effective parasite of red scale and it is recommended to do an augmentative release every month. This is particularly important if a heat wave kills the adult aphytis as sometimes happens. Aphytis are available from Bugs for Bugs.

Movento and Transform are chemicals helpful for the management of red scale. Hemispherical scale are usually only a problem if something happens to the parasite population. Oil sprays can be used to control scale crawlers with minimal impact on beneficials. Queensland fruit fly activity slows and is usually not an issue after the start of May but can cause considerable damage when the skins of the newly set fruit are still soft. A baiting program with yeast autolysate and a killing agent is recommended until at least the start of May depending upon pest pressure.

Diseases levels have generally been good due to the dry conditions. Apply mancozeb or copper every 2-4 weeks depending upon weather and Amistar, Rovral or Cabrio after wet weather and at peak flowering. As nights start to cool, the dew point occurs earlier in the night and vines stay wetter for longer. Be aware of how long the vines are staying wet in the mornings as this also affects disease levels.

In conclusion, the best way to hold a good crop coming into the cooler months is to push balanced nutrition and look after soil health. Hopefully vines will set early and continue to set so that we have panamas picking to October!



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