

## E-letter # 14 – August/September 2014

Written by Peter Coppin 12/08/14 – can be reprinted as long as the author is acknowledged

Hi everyone, here are some hints & reminders for August & September.

I am convinced there is no such thing as a 'normal season' anymore. A wet but warm May, a cold dryish June, most of July was average, but the last few weeks have been unseasonably warm.

This will mean a lack of chill units for many deciduous fruits, but the warm weather has also triggered early movement in many trees. For example, lots of citrus trees are showing signs of new tip-growth.

I'm predicting an uneven and protracted flowering for most species this season, and this could have a serious affect on fruit set (especially those that need or respond to cross-pollination).

It will also make the application of preventative sprays such as copper or sulphur more difficult, as these can burn flowers and even new green shoots. So if you haven't done them yet, get out and do so if you can.

### 1. Pollination:

This brings us to the topic of cross-pollination. Apart from species that have separate male and female plants, or where there are separate male and female flowers on one tree (both where cross-pollination is critical) most fruiting plants have bisexual flowers on the same tree or vine.

Nearly all plants with bisexual flowers have reasonable levels of self-fertility, but many respond to some degree or another to having another variety close by for cross-pollination. But we can't be too generic in saying which do and which don't. There can be as big a difference between two varieties of the same species as they can be between species.

For example, a Lady Williams apple only has about a 22% self-fertility, meaning that only 22/100 flowers will self-pollinate, making having a cross-pollinator important. Where as a Golden Delicious has over 80% self fertility, making cross-pollination unimportant.

But it always pays to have cross-pollinators to improve the level of cropping, particularly in an off year that we may be heading for this season.

Another benefit of cross-pollination is that with some species such as apples and blueberries, fruit size is directly related to how many seeds the fruit is carrying. Therefore, encouraging more pollination usually increases the number of seeds in each fruit.

To see how this actually is, when your apple tree is close to maturity pick a couple of the smallest fruit and a couple of the largest. Cut them in half and count the seeds - you will be surprised to see the small fruit will probably only have one seed, while the larger may have three or four seeds.

Species that respond to cross-pollination include:

- Apples & pears
- Plums & plumcots
- Avocados
- Blueberries
- Some citrus such as Tangelos

These are all good reasons to have more than one variety planted, but of course they need to flower at the same time for cross-pollination. If they don't you will need to either plant one that flowers at the same time or graft over one of the branches.

Another trick which is really worthwhile is to find a friend or neighbour with another variety that is starting to flower at the same time as yours. Take a couple of small cuttings of the flowering wood, put them in a jar of water or flat lemonade and hang them in your tree. They will continue to flower and pollinate the flowers on your tree.

### 2. Fertilising:

The sign of flowering on deciduous species or new growth on both deciduous and evergreens indicates that new season's feeder-roots are now becoming active, thus they will respond to the addition of nutrients.

If you use a slow or controlled released product you can do your first applications now to all plants. However, if you use water-soluble granular products only apply small amounts to trees/vines that are 'moving'.

### **Fertilising (cont'd):**

This is especially important on sandy soils where nutrient leaching is a big issue, and we could well have some more heavy rains before winter finishes. This is a main benefit of using mineral rockdust-based products because they are slow release and require a lot of soil microbial activity to become active.

Other organic fertilisers based on blood & bone, animal manures, etc, are also relatively slow release, but please remember that a considerable amount of their nutrients can be released fairly quickly, and applying too much too quickly can lead to leaching.

(It's interesting that 30% of the Phosphorous leached into some of our rivers and water catchments actually comes from organic matter, including manures.)

### **3. Nutrients & Plant Health:**

Keeping up nutrients at the right levels is critical for plant health. Plants that have a poor nutrient status are far more susceptible to attack by pest or disease.

The following picture shows two citrus in pots, the mandarin at the top in a larger pot than the lemon at the bottom. It shows how a larger growing variety (the lemon) has a higher nutrient requirement, and this tree also indicates that it needs to be in a larger pot.



You can see how the leaves on the bottom tree are much paler, but have also been attacked by insects. Maintaining the nutrient status is really a balancing act between keeping up tree health and minimising excessive growth and nutrient leaching. This is a major reason for splitting fertiliser applications over the growing season, and/or using slow or controlled release products.

### **4. Winter Spraying of Trees & Vines:**

If your deciduous plants haven't started to flower or show new green tip growth there is still time to apply pest oil sprays at full strength to control mites and scales. If there is some 'movement' you could probably still apply oil at half rates, but remember this could cause damage to the blossom.

The same applies to spraying either copper or Lime sulfur, the latter being excellent for the control of Powdery mildew in vines and many of the fungal diseases in deciduous trees.

Many grape vines are at green tip stage, so you will have to revert to using a wettable sulfur product.

Stonefruit trees are susceptible to a range of fungal and bacterial diseases, which can have serious effects. If you haven't already applied copper sprays and there are flowers or new growth, you may still consider applying them at one-third to one-half rates.

This is especially so on peaches and nectarines for leaf curl, and on peaches and apricots for brown rot. This is even though they may be flowering, as these diseases can severely impede or even write off the crop.

Hint: Apply fungicide sprays in the late afternoon to minimise burning as they dry more slowly and evenly.

### **5. Mulching:**

Up to 70% of moisture loss from soil is caused by surface evaporation, and a 50 to 60 mm mulch layer can drastically reduce that. And it's never too early to apply a good water-wise mulch such as chipped prunings or pine bark (especially to pots). Even at this time of the year, warm and windy conditions can be drying the topsoil out, sometimes with serious effects that we may not appreciate – [see my factsheet on citrus](#)

### **6. Other reminders:**

Previous winter/spring newsletters can be seen at: [Jul/Aug 2013 – winter sprays, pruning & planting.](#)  
[Sept/Oct 2013 – fertilisers, late winter sprays, etc.](#)