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# E-letter # 10 – September/October 2013



Hi everyone, here are some seasonal reminders for September/October for fruit trees & vines.

**1. Fertilisers – just what are needed and when?**

Plants need fifteen nutrient (mineral) elements for healthy existence, and they also react or interact with a number of others. These fifteen are:

Major elements:

Nitrogen (N), Phosphorus (P) & Potassium (K)

Minor elements:

Sulfur (S), Calcium (Ca), Magnesium (Mg), Iron (Fe) & Chlorine (Cl)

Trace elements:

Copper (Cu), Zinc (Zn), Manganese (Mn), Boron (Bo), Selenium (Se), Molybdenum (Mo) & Silica (Si)

Other elements of importance in that they can affect both plant and soil health include Aluminium (Al), Cobalt (Co), Cadmium (Cd) & Nickel (Ni).

Two-thirds of garden fertilisers sold in WA contain less than seven elements. If you use one of them, where are your plants going to get the other eight or so that they require?

All plants need these fifteen elements, and apart from grasses (lawn, etc), you can use the same fertiliser everywhere and your plants will simply seek out just what elements they need.

What is a good fertiliser?

All you need is a good general-purpose fertiliser, and this will suit more than 90% of the plants you may be growing. But before you buy or use a fertiliser, check the analysis on the packet, and if it doesn't list at least ten of the elements listed above, don't buy it or don't use it. This narrows the choice of products down to less than a dozen (mineral or organic lines).

Now let's take this a step further. Some elements, such as Selenium, are also critical to animal health, not the least we humans. If you are growing food crops, your fertiliser should also contain many other elements (humans actually need 39 minerals).

There are very few products that contain Selenium or many of the other minerals, so you might want to go the extra yard and find ones that do. I use one of the rock dust based products that actually contains 23 different elements.

But the key is to develop a healthy vibrant living soil, and maintain organic matter levels to at least 5% and ideally 10% (even 15% for highly productive vegetable gardens). This makes many more elements 'available' to plants.

When do plants need fertilising?

Whether native or exotic, deciduous or evergreen, plants respond to nutrients for 5 - 7 months of the year. This is when their feeder roots are active. Outside of this time, most nutrients are wasted and indeed often end up polluting our groundwater or creek and river systems.

Deciduous species do 75% or more of their nutrient uptake between bud-swell and around New Year, particularly the less soluble/mobile elements such as phosphorus.

Evergreen species also do much of their nutrient uptake during this time, but they also have an autumn flush of growth, enabling further fertiliser applications at this time if necessary.

So how do we know if plants will respond? Well, it's pretty simple - if you are seeing new growth, there is feeder root activity and therefore they will respond, and vice versa.

Trace Elements:

Unlike most of our native species, exotic trees and vines have a high trace element requirement. Supplement whatever fertiliser you are using with a trace element mixture (garden products on the market are organic based).

Apply to all trees and vines now at label rates, and give another application to evergreen species in autumn - you will be amazed how much of a differences this will make.

**2. What sprays are still needed?**

There are a few diseases that can still affect fruit trees, such as Leaf curl, Brown rot and Shothole in stone fruit, Pear scab in pears and Powdery mildew in apples and grapevines.

In previous E-letters I have strongly suggested the value of preventative sprays. Once the bud-swell stage has been reached, and definitely when there is either first flower or first leaf, it is too late for preventative sprays to be fully effective.

However, if you are careful you can use one third or even one half rate copper sprays now to reduce the severity of infection. I am noticing quite a bit of what is called 'secondary infection' of leaf curl in peaches and nectarines. This is where the initial shoot growth was clean, but now there are signs of new infection caused by fungal spores landing on clean new growth and then germinating.

With grapevines, make sure you keep up with the sulphur-based sprays to control both Powdery mildew and Bunch mite. This may be a little difficult considering the number of rainy days we seem to be getting in September.

HINT: When spraying powder products like copper or sulphur, always try to spray late into the afternoon or in the evening. This ensures that the spray dries slowly and evenly, not only improving its efficiency, but also vastly reduces the risk of foliage burn.

**3. Fruit-fly:**

With both days and nights becoming warmer, fruit fly is becoming active. So now's the time to start trapping, and if any of your fruit are close to ripening splash baiting will also help. In fact, if everyone with fruit trees baited and trapped all year round, we simply would not have anywhere near the huge problem we currently have with fruit fly.

**4. Fruitlet thinning:**

Most trees will set far more fruit than we actually need for each of those fruit to achieve a reasonable size. Also, many fruits will get into a habit called biennial bearing, where there will be a heavy crop one year followed by a light one the next season.

After fruit set, when the little fruitlets get to the size of a large pea or a small bean, it pays to remove any excess fruit. This will ensure that the remaining fruit will develop into a decent size. The earlier thinning is done, the better the results. But most people never thin hard enough, thinking what a waste it is to throw this fruit on the ground.

One way to get a handle on this is to visualise that you want larger fruit like peaches apples to be the size of a tennis ball, and smaller fruits such as plums and apricots the size of a golf ball. You will then quickly realize that you have left too many behind.

**5. Passionfruit varieties:**

Passionfruit is a terrific evergreen vine capable of producing large amounts of a very versatile fruit. However, there is some confusion over what are the best varieties for the southwest of WA.

Without a doubt, two stand out - Sunshine Special and Panama Red. Both can perform exceptionally well here, with large fruit full of delicious pulp. The former is a far-improved selection of the original Nelly Kelly, which was often a wrinkled fruit with a small amount of acrid seed.

Many garden centre staff and other people will tell you Panama Red is not suitable to the cooler SW because it tends to set a lot of winter fruit. But this is a natural pattern if the vines are not pruned in August, which leads to flowering that results in summer fruit. In fact, if you prune and half the vine in August and the other half in early December, you can be picking fruit for 9-10 months of the year!

The other unfortunate issue is that many retailers sell vines propagated by a nursery that has trade marked the name Nellie Kelly, and this name is prominent on the nursery label. So people have bought these thinking they were getting the old Nellie Kelly variety, but could have got any one of three or four other varieties.

And it also appears that the vines from this nursery are grafted on to a wild passionfruit rootstock that often seems to sucker badly.