

SOIL

1. Wait till soil moisture is correct before soil preparation to avoid making clods.
2. Take soil and root samples and send to lab for nematode analysis to assess the need to fumigate prior to planting. Don't speculate.
3. Do maintenance on drainage to ensure they function effectively.
4. Start applying maintenance lime with first good rainfall.

Irrigation

1. Service existing monitoring tools and install new ones. The longer a probe has to settle before use the better.
2. Do a post-mortem on your water use for the season. Collect your data on applied water per block or cultivar per phenological stage. Ask neighbours to do the same and have workshops to benchmark your water use to theirs.

Pruning & Training

Pruning videos:

- Peach/nectarine trees: <https://youtu.be/CXkqZ03pXZw>
- Apricot trees: <https://youtu.be/SniQ4e2XloU>
- Plum trees: <https://youtu.be/Tx4SSAUqTMk>

The author has purposefully shied away from writing on plum pruning, as there are as many recipes for plum pruning as there are consultants; each with their own specific pruning recipe.

However, the basics of all pruning stays the same. Pruning is undertaken for basically three main reasons:

- Light management in the tree so that all spurs and leaves are exposed to, as near as possible, direct sunlight.

- Crop load management: the pruning shear remains the best thinning tool that we have, especially if one can select the best quality fruit buds when pruning.
- Generation of new good quality bearing wood. I know there are other reasons for pruning such as height control, removing root suckers etc., but the above three points remain the main reason for pruning any deciduous fruit tree.

Fortunately today most plums are grown on a two dimensional trellis, with anything from 6-17 wires on the trellis, so light management is a lot easier on plums than for other deciduous fruit tree types. However, I still see many plum orchards where the tops are too heavy and too vigorous and this creates a great deal of over shading in the trees.

1. Tree training

When it comes to tree training one basically has two types of plum growth habits:

- Those plum trees that want to be trained to the horizontal, the willowy growers that give side breaks easily and,
- The more upright growers that want to be trained anything from 45° to 30° off the vertical and these are normally also the varieties that suffer from bud extinction.

So the first thing to work out is for example, which variety you are dealing with and to train it to the correct training system.

- Laetitia, Songold, Ruby Star etc., I would train horizontal.
- Sapphire, Gaviota, Larry Ann etc., I would train to 30° to 45° off the horizontal.

2. Pruning

2.1 Horizontal type growers

There are only two kinds of wood in a fruit tree and that is bearing wood and structural wood. We often refer to structural wood as the bone and for many of the plum varieties but especially the horizontal growers, this bone is permanent and the bearers are positioned on the structural limb (bone) and only removed off the structural limb when they get too vigorous or too thick or non-productive.

- Having identified the structural limb, do not cut back into the structural limb, thereby not making stimulating cuts into the structural limb as this encourages vigour in the tree

with resultant poor fruit set and over shading. The resultant strong vegetative growth competes with the available reserves of the tree in spring.

- On the structural limb, remove all shoots thicker than one third the thickness of the structural limb, leaving a 2cm stub or “tappie”.
- Do not cut back into the two-year-old and older spurred-up units unless they were very thin (thinner than matchstick thickness) as this too will stimulate too much vegetative growth.
- Leave as many thin knitting needle thick one year old shoots shorter than 20cm in length (one shear length) on the structural limb to spur up for next year.
- One must space structural limbs approximately 20cm apart going up the fruiting wall. Occasionally one can tie new branches to fill gaps in the fruiting wall.
- Remove rubbish out of the tree that is weak spindly one-, two-year-old and older shoots, thinner than matchstick thickness that are just weak little bearers. This helps reduce the number of flowers.
- Especially on the tops of the trees, one must remove the so called growth branches, these are branches thicker than 1/3rd the thickness of the structural limb.

2.2 Bud extinction varieties

In these varieties, one needs to identify the structural limb, also remove any bearers thicker than 1/3rd the thickness of the structural limb.

- Cut back one year old shoots of knitting needle thickness and thinner to 20cm. I prefer doing this after bud swell.
- Two year old and older spurred up units to cut back to a fat reproductive bud, if thicker than pencil thickness, need to remove entirely as the thick two year old shoots will just become too vigorous.
- One needs to continually replace structural limbs and tie the new shoots to 30°-45° off the vertical, because bud extinction is a real problem.
- Remove weak spindly one-, two-year-old and older shoots matchstick thickness and thinner.
- Because one is cutting back into the one year old wood on these varieties, it is easier to leave one year old wood in these trees.

It is very easy for these trees to become top heavy, so one must remove the thicker than 1/3rd of the structural limb branches and these are normally excessively vigorous branches.

3. Hygiene

Plums are very susceptible to bacterial diseases, especially *Xanthomonas prunii* and *Pseudomonas syringae* (Bacterial Canker). The author strongly recommends disinfecting all pruning equipment after each tree is pruned in a strong disinfectant. One must not prune on rainy days. For stone fruit only, if one can paint the pruning wounds larger than 2.5cm in diameter (R5 Coin) with a good pruning wound sealant, I believe it does help. It might not help for apples and pears but it does help stone fruit.

4. Summer pruning

Follow up summer pruning for both plums is essential. This will be discussed in September/October *Timely Hints*.

PEST AND DISEASE CONTROL

- **Bacterial Canker, Bacterial Spot/Xanthomonas & Gumspot – All Stone Fruit.** For a standard maintenance programme (no exceptional problems have been experienced this past season) on all stone fruit trees, **a single application of Copper Oxychloride @ 350g/hl**, needs to be applied **@ 75% leaf drop**. If problems have been experienced this past season, **2 sprays of Copper Oxychloride @ 350g/hl** could be applied, with the **first at 50% leaf drop and repeated at 80% leaf drop**.
- **At even bud swell in the spring**, apply **Copper Oxychloride @ 350g/hl**.
- **Leaf Curl – Peaches and Nectarines.** A **single application of Copper Oxychloride @ 350g/hl**, needs to be applied **@ 75% leaf drop**.
- **At the first signs of bud movement (expected) in the spring**, apply an early bud swell **Copper Oxychloride @ 350g/hl**.
- **Leaf Curl – Peaches and Nectarines.** Spray **Thiram @ 150g/hl, 5-7 days after copper** and **repeat every 4-7 days** (based on how wet trees are – dew and rain) before and after rain. Last spray at Full Bloom.
- **Thrips – Nectarines and Plums.** Apply **15ml/hl Tracer @ 10% balloon** and repeat 7-10 days later if needed. Safety window = 21 days on peaches and plums, 7 days on nectarines.
- **Scales and Mealy bug – All Stone Fruit.** A minimum of **2 high volume** sprays per season **@ 100% TRV** must be applied 4-6 weeks apart, comprising **100ml/hl Lirifos 480 EC plus**

500ml/hl mineral oil. The desired droplet size needs to be in the 250-300 micron range for effective efficient wetting of the targeted trees, specifically in the tops to control scale and mealy bug. It is important that the correct nozzle choice (do not use Albus nozzles or non-axial fan spray machines for dormant winter sprays) and pump pressure are selected to deliver the required droplet size. The first spray should be applied before pruning and followed up after pruning. The second spray should be added to the rest breaking spray if applied, otherwise can be mixed with the early bud swell copper application.

- This is the last season that chlorpyrifos may be applied to any trees in South Africa.
- **In problem scale situations**, 3 sprays should be applied 4 weeks apart, ensuring a thorough coverage and wetting of the tree structure.
- **Mealy bug Situations – All Stone Fruit.** 50ml/hl Tokuthion as a high volume application, ensuring a thorough wetting of the tree structure must be applied BEFORE any sign of bud swell.

TIMELY HINTS CONTRIBUTORS

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