



Trained Fruit Workshop Audley End September 2022

Vine pruning and maintenance



Welcome to the Audley End Vinery. The first thing you'll notice is that there is no fruit on the vines – caused by the incredible heatwave of July 2022 which literally cooked the grapes on the vines and we had to remove them. In here the temperature is easily 5 -10 degrees hotter than outside, and it reached 42 degrees outside! The historic glasshouse environment during a period of global warming is clearly challenging, especially as we still have no shading.

This Black Hamburg vine is approx 160 years old, a traditional Victorian cultivar, much prized at the dining table. In those days the skins would have been much thicker than we like today, and all varieties would have had seeds. We also grow a white variety called Lady Downe's Seedling in the next door vinery. It requires a lot of skill and effort to prune, thin and maintain these grapes. It was very overgrown when we began the restoration, taking over the whole vinery, so had to be cut hard back to get back into the rod and spur system.



I'm going to take you through our annual maintenance regime. We do follow quite historic parameters so the whole process is very labour intensive. In the Victorian era they would probably have had one person managing this vinery and doing very little else. We try to get in when we can and usually get a very good crop. Vines survive for decades and even hundreds of years, and although you can see there are some areas that are in decline it is generally very healthy. The vines are planted outside to benefit from the moisture and nutrition of a large root run, and the stems are trained through holes in the wall.

We tend to start harvesting in October, whereas some heated vineries (eg Hampton Court) will start earlier in the season. So after harvest and all the leaf clearance (a daily job) we have to wait until December for the plant to go into winter dormancy. Then we lower the rods down to the ground so that we can work on them without the need for being on a ladder. We have quite a modern system for allowing this to happen – bungies are used to attach and easily detach the rods from the wires. Otherwise it would have been lots of string being used every year which would be rather wasteful. We have short black bungies for the growing season and long red bungies to suspend them at around waist height for the winter.



We lower the vines and prune the side shoots that have grown during the current season back to one or two buds. These will form the fruiting spurs for the following year's grapes. Then we get into the very slow and lengthy process of scraping away the bark to ensure we clean away all the pests that might be hiding there. We use a blunt pen knife and scrape away all of this year's bark back to a lovely russet colour – not into the green cambium layer which would cause bleeding, damaging the vine.



The main pest we are trying to remove is the mealy bug which love to settle on indoor cultivated grape vines, sucking the sap, excreting honey dew and encouraging sooty mould which then weakens the plant. We can spend weeks doing this job, usually in the cold weather, getting the students to help out... It is a very traditional Victorian method and we have considered not doing it because of the time it takes. One year we just concentrated on the most gnarled knuckles, but noticed a big increase in the mealy bug population. After the scraping we have been using a product call SB Plant invigorator as a winter wash to ensure any pests we have missed are tackled. It is applied with a tooth brush into the crevices, and we tend to ask the volunteers to help us with that job once they are back in early spring. We have now switched to a different organic product called Flipper which is still allowed under our organic regime.



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Usually around mid March we start to get bud break, and the sap starts flowing. All the rods have to be put back up onto the wires and we start the pinching out of the surplus new shoots, to ensure that as much energy goes into the fruiting spur. We have to identify what we are going to retain and what is surplus throughout the growing season. The shoots that we retain we tie into the wires, and we usually have one or two reserves incase one of them snaps. It is best to do early in the morning when the shoots are still quite flexible. The retained shoots are then pinched out about two leaves beyond the developing fruit truss. We try not to prune any large shoots during the growing season because of the risk of sap bleeding, but it is fine to remove small young shoots as they won't bleed for long.

Once the fruits start to form we have the job of thinning the bunches out. Anything that is badly formed or behind the wire will be removed – often up to 30% of the bunches. Then the actual grape thinning – necessary if you want uniform large grapes for exhibition purposes. It is tempting to take far too long on the job, so sometimes we have thinning parties with a few drinks and nibbles to ensure it is not quite so tedious! We try to keep on top of any diseased leaves during the growing season, and remove some healthy leaves to allow the grapes to ripen, ensuring enough are left to shade the fruit from the very hot sun. In July and August we put up wasp traps made of sugar water in special glass bottles to hang up on the wires and stop the wasps damaging the fruit. Then it is time to start harvesting all over again!