

## ALTON ORCHARD ACTION GROUP

Dear Ms Simpkin,

### **Re SMD/2017/0497 - Ivy Cottage, Tythe Barn, Alton**

I am writing on behalf of the Alton Orchard Action Group (AOAG) to comment on Steve Massey's memo dated 17 December 2017 re "Supplementary comments on Replant Disease".

AOAG was set up to protect the last remaining traditional orchard in Alton, one of very few remaining in Staffordshire Moorlands, by opposing development of this site. While the council was sympathetic to our case, the developers were not. Despite the presence of TPOs on each of the trees, the developers have set out to systematically destroy this important environmental asset.

AOAG continues to advocate that the site should not be developed so that an orchard can be retained as part of the heritage of the village. In spite of the removal of veteran trees a seed bank and fungal bank will remain. We therefore ask that the application should be considered in the light of that habitat along the lines of a Plantation on Ancient Woodland Site (PAWS).

As Mr Massey points out, replant disorder, or replant disease, is a common problem in re-establishing plants in soil where the same species was previously grown. It affects very many species, especially roses with which the term Sick Soil Syndrome is often associated. The problem is well known in apples, where it is sometimes referred to as Specific Apple Replant Disease (SARD). While this can inhibit root growth, (symptoms are slow growth of apple plant shoots, weakened growth and in some cases, plant death) once new root systems have established, it ceases to be a significant issue. It is scarcely credible that a commercial grower would not be aware of this problem and would take it into account when replanting.

Mr Massey quite rightly states that SARD does not prevent the re-use of any site as an orchard. In fact replant disease is only likely to occur in the same spot as the old tree, not the entire orchard. As photographs show, a large number of trees are unaffected and this bears out the efficacy of one recommended remedy, which is to simply to plant a few feet to the side of the old planting position.

While the etiology is uncertain, a number of theories have been posited and there is evidence that points to the presence of pathogenic micro-flora, (phytotoxic micromycetes) being a key causal factor. Some species of nematodes are known to be responsible for plant diseases and may be implicated in SARD. Soil PH and soil fertility may also be factors.

There is good evidence that chemical soil sterilization (eg. Trichloronitromethane) is effective, however most of the effective products are banned within the EU. Steam sterilization, while compatible with organic certification, is expensive. Therefore precautionary measures are usually applied when orchards are replanted.

A commercial grower would be expected to be aware of the precautionary steps that can be taken to limit the risks of SARD. This information is widely available on the Internet and can be easily accessed by non-experts. For example the Royal Horticultural Society's suggestions

include:

- Removing soil from the planting hole and refilling with fresh soil to a diameter of 50 cm and 30cm depth. *(NB We found no evidence that larger planting holes are more effective)*
- Incorporating well-rotted manure or organic matter
- Application of high nitrogen organic fertilisers
- Using resistant rootstocks such as M27 *(NB In our view dwarfing rootstocks such as M27 are a good choice for such a small site)*

The use of biological agents, specifically Mycorrhizal products as a root treatment, when planting has also been shown to be effective. This product requires no special training or precautions, is low cost and can be administered as a root gel or by watering in. Alternatively trees can also be bought in the UK market with roots wrapped in compost and pre-inoculated with Mycorrhizal fungi, enabling the rapid development of a robust secondary root system, which can overcome the problems associated with SARD.

All of these measures would satisfy the requirement for organic certification. Incidentally, organic gardeners sometimes plant using a cardboard box with the bottom removed to line the planting hole, by the time the cardboard rots the plant has established.

In the case of post-plantation management, methyl bromide, Dazomet and calcium hydroxide, have all been shown to be effective in improving and maintaining cumulative yields at commercially viable levels. (Brown, G.S. and Koutoulis, L. (2008). OVERCOMING APPLE REPLANT DISEASE: TREATMENT EFFECTS OVER THE FIRST 7 YEARS OF ORCHARD LIFE. Acta Hort. 772, 121-125 DOI: 10.17660/ActaHortic.2008.772.14)

We would like to comment on organic certification. As Mr. Massey notes, some post planting treatments could compromise organic certification. However in this case certification could not be obtained until the requirement of the EU regulation for organic production ((EC) No 889/2008) is met. The fact that the owners have already used herbicides means that in any case they could not have met the requirements and could not be considered organic producers, irrespective of any post plantation treatments they may have chosen (or not) to use.

It takes time to achieve organic certification. One of our AOAG members is also a member of the Soil Association (whose organic standards provide a framework for certification) and has confirmed that in the case of established perennial crops i.e. apples, 3 years of organic conversion are necessary.

The owners of the site publically stated their intention to spray the orchard and we have evidence that they subsequently did so. This would have been completely illogical if they had really intended to apply for organic certification.

We note that the applicant's Design and Access Statement advises that .... "due to the widespread failure or poor establishment of the replacement fruit trees arising from Replant Disease, the site is no longer considered suitable for orchard use ....." . As our forgoing comments make clear, this is a blatantly misleading statement and must be challenged; many orchards are subject to SARD - many are successfully replanted.

The Design and Access Statement goes on to say .... " and thus the orchard business is not being continued and the applicant is reverting to proposals for residential development". We respectfully contend that this is a business decision and is not a relevant issue for

consideration under article 4 of The Town and Country Planning (Development Management Procedure) (England) (Amendment) Order 2013.

We are surprised that someone with no previous experience in orchard management appears to have embarked on a project to develop a commercial orchard on such a small site. We are surprised that the most elementary horticultural issues have not been considered and that no professional advice appears to have been taken. It seems apparent to us that the applicant does not understand the principles of organic management and production of apple crops.

In conclusion, taking into account that SARD is a widely known phenomenon that can be managed effectively, we are astonished that no precautionary steps were taken to mitigate this risk when the orchard was replanted.

We also are at a loss to understand why if the owners had intended to operate the orchard on organic principles, they sprayed the undergrowth with herbicides.

There are other options that could be considered that would enable an orchard to be retained on this site. As we have sought to explain there are no biological or horticultural reasons why this could not be done.

There are good biological arguments e.g. the remaining fungal and seed bank, and other scientific arguments that support our view that the habitat can be restored so as to increase the cultural value, heritage value and biodiversity of this site.

Finally we strongly object to the development of this site. It is our view that there has never been any serious intent to establish and / or operate a commercial orchard at Ivy Cottage, someone once said if it like looks like a duck and swims like duck and quacks like duck.....

I trust that this information will be made available to the planning committee to enable them to properly consider this matter.

Yours Sincerely

Maggie Peet

On behalf of Alton Orchard Action Group