

# Bill Godfrey – W. Godfrey & Sons Ltd

W. Godfrey & Sons Ltd are wholesale herbaceous growers, selling hardy herbaceous plants for the landscape sector. The business has six permanent staff managing a turnover of just less than half a million pounds on a 2 hectare growing site.

Similar to the soft fruit and the glass house sector, the farm has a big problem with black vine weevil (*Otiorhynchus sulcatus*) in their container-grown hardy nursery stock.

Vine weevil is the number one pest of container-grown hardy nursery stock. Adults cause damage by feeding on and



notching the foliage of plants, but the larvae, which feed on the roots of plants, crowns, corms and rhizomes can cause severe damage which can result in the death of the plant. Feeding symptoms or the presence of larvae in the plant rootball can result in product rejection and ultimately, the death of the plant.

Due to the withdrawal of, and restrictions on using most persistent plant protection products in the growing media for control of vine weevil larvae, a robust integrated pest management strategy is now needed, tackling both adults and larvae.

Historically the farm would have used a long-lasting insecticide incorporated into the compost to control vine weevil, which is still possible, but the remaining choices have a persistence of less than a year. The preferred option now is Integrated Pest Management centring on the use pathogenic nematodes that are commercially available and applied through the overhead irrigation system.

This biological control may be more expensive than compost-applied insecticides, depending on the choice of nematode. Other aspects of IPM on the



holding involve routine disposal of older plants, which can become a reservoir for the pest and removal of fallen leaves. Adult vine weevils are peripatetic and nocturnal, so the removal of any debris such as old leaves, pots and dead plants deprive the pest of hiding spaces. Vine weevil is not a universal pest and favours genera such as Primula, Heuchera, and Euonymus, as well as conifers. The site also groups together susceptible plants to make monitoring and control more convenient.

The commercial name of the beneficial nematodes that the farm uses is *Nemasys L (Steinernema kraussii)*. There are two different nematodes that can be used: *Nemasys L* and *Nemasys H*, with the difference being the compost temperature needed for the nematodes to be effective. *Nemasys L* is effective at lower compost temperature (down to 5°C) but is more expensive. *Nemasys H* needs a compost temperature of 12°C, but is cheaper. The pest has a typical life-cycle lasting one year. It is essential to target applications to the right time in its lifecycle. To this end, it would be very helpful to be able to monitor pest presence and activity.

The nursery has been trying monitoring systems that trap adult vine weevils in order to understand the level of infestation and to determine when is best for the timing of applications, as it is inefficient to put nematodes on if there are no larvae present. The other method being trialled is placing straw stuffed pots out at night and collecting them the next morning. However, its efficacy is not consistent and the process can become quite tedious. "If you've got a bad infestation, the first thing you see is

that the crop dies. A means of monitoring and looking into what's going on in the pot would be good." Commercial traps are available elsewhere, but not yet in the U.K.

Scientific work is being undertaken at University of Swansea (Professor Tariq Butt), Harper Adams University (Dr Tom Pope) and ADAS (Jude Bennison). With AHDB Horticulture being closely involved.

Insecticides can be used in late May to kill the vine weevil adults prior to their egg laying. Bill says that "it is becoming increasingly difficult to do this due to products no longer being available in the UK. There is at present only one product (Steward) which can be safely used without severe damage to the natural fauna."



“What's important with IPM is to understand your perception of pest threshold and economic damage threshold. My perception is that it is zero for this pest. We are looking for complete eradication.”

## POLICY ASKS

### Education

- A lot of the problem is, in my view, education of the public. It comes back to 'no blemishes on the apple', which is starting to move forward but there's a perception that it's a natural world we live in and these things can't be eradicated completely, they can only be kept under control. However, if you want them kept under control then you need a measure that is often chemically based as there are not always biological controls available. The commercial reality is that there might not be a way of keeping them under control. Availability and effectiveness of pesticides are getting less and less.
- IPM requires a lot of education for growers because they need to understand and recognise a pest and determine what the economic thresholds are. If you look into apples and pest management in them, there are a species of aphids that attack apple trees. The green apple aphid counts are quite high, but rosy apple aphids are controlled as soon as they are spotted because they are a more damaging pest. In glasshouses you might have a clear threshold for red spider mite but for aphids, that might potentially introduce a virus, it could be a zero threshold.

“It's difficult to get the training through to staff, and I've noticed that DEFRA is keen on training, but they don't know who will deliver it. Agricultural colleges locally do very little 'real' agriculture in my experience.”

### FURTHER INFORMATION:

<https://www.wgodfrey.co.uk/>

[Hardy nursery stock](#)

[Nemasys L \(Steinernema kraussai\)](#)

[Scientific work is being undertaken](#)

[Improving vine weevil control in container-grown hardy nursery stock](#) [https://horticulture.ahdb.org.uk/sites/default/files/Vine\\_Weevil\\_Poster\\_A1\\_2018\\_02\\_12\\_PROOF.pdf](https://horticulture.ahdb.org.uk/sites/default/files/Vine_Weevil_Poster_A1_2018_02_12_PROOF.pdf)

[Vine weevil control in hardy nursery stock](#) <https://horticulture.ahdb.org.uk/publication/2416-vine-weevil-control-hardy-nursery-stock>

[April/May 2018 Issue of The Grower](#) [https://issuu.com/ahdbgrower/docs/the\\_grower\\_april\\_may/20](https://issuu.com/ahdbgrower/docs/the_grower_april_may/20)

[Overhead application of nematodes](#) <https://www.youtube.com/watch?v=cmBDLUFcpPk&feature=youtu.be>