



Grower Summary

SF 149

**Exploring whether
redberry disease of
blackberry is caused by a
mite-transmitted virus**

Final 2015

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The results and conclusions in this report may be based on an investigation conducted over one year. Therefore, care must be taken with the interpretation of the results.

Use of pesticides

Only officially approved pesticides may be used in the UK. Approvals are normally granted only in relation to individual products and for specified uses. It is an offence to use non-approved products or to use approved products in a manner that does not comply with the statutory conditions of use, except where the crop or situation is the subject of an off-label extension of use.

Before using all pesticides check the approval status and conditions of use.

Read the label before use: use pesticides safely.

Further information

If you would like a copy of the full report, please email the AHDB Horticulture office (hort.info.@ahdb.org.uk), quoting your AHDB Horticulture number, alternatively contact AHDB Horticulture at the address below.

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Project Number:	SF 149
Project Title:	Exploring whether redberry disease of blackberry is caused by a mite-transmitted virus
Project Leader:	Stuart MacFarlane, JHI
Industry Representative:	Salih Hodzhov, WB Chambers & Son
Report:	Final Report 2015
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Previous report/(s):	N/A
Start Date:	April 2014
End Date:	August 2015
Project Cost:	£14,830

GROWER SUMMARY

Headline

- In this project, at least three new viruses have been discovered in blackberry, but their contribution to the condition called redberry is not yet known.

Background and expected deliverables

Trials to date looking at acaricides for the control of the blackberry mite thought to be responsible for this condition have shown little control of redberry despite good mite control. This suggests either something other than the mite is causing the condition or that the mite is transmitting something which is systemic in the plant and causing significant damage with relatively low mite levels. This project has carried out in-depth sequencing of plant tissues affected by redberry to try to identify whether viruses are responsible for this condition and whether the blackberry mite is transmitting them. Finding out if the condition is indeed virus-associated will inform control measures and could lead on to screening different blackberry genotypes to look for tolerance or resistance to the virus.

Summary of the project and main conclusions

The project has revealed that redberry-affected blackberry plants do carry viruses. None of these viruses is known to be transmitted by mites and so, at present, there is no evidence that links the blackberry mite and these viruses in the disease process. However, it is now possible to use the tests devised in this project to examine more closely whether any of these viruses actually are present in the blackberry mite and whether they have any association with the redberry disease.

Financial benefits

A typical blackberry crop can be worth up to £10,000 per tonne and in 2015 in some plantations as much as 30% of fruit showed redberry symptoms. This project was designed as a foundation for further work on identifying the causal agent(s) of redberry disease in blackberry. No immediate financial benefits were predicted.

Action points for growers

- The project was not designed to produce immediate recommendations for growers to follow.