



Agriculture & Horticulture
DEVELOPMENT BOARD



Grower Summary

SF 012 (GSK200)

Autumn sprays for the
control of aphids in
blackcurrant autumn 2003 –
spring 2005

Final 2005

Disclaimer

AHDB, operating through its HDC division seeks to ensure that the information contained within this document is accurate at the time of printing. No warranty is given in respect thereof and, to the maximum extent permitted by law the Agriculture and Horticulture Development Board accepts no liability for loss, damage or injury howsoever caused (including that caused by negligence) or suffered directly or indirectly in relation to information and opinions contained in or omitted from this document.

No part of this publication may be reproduced in any material form (including by photocopy or storage in any medium by electronic means) or any copy or adaptation stored, published or distributed (by physical, electronic or other means) without the prior permission in writing of the Agriculture and Horticulture Development Board, other than by reproduction in an unmodified form for the sole purpose of use as an information resource when the Agriculture and Horticulture Development Board or HDC is clearly acknowledged as the source, or in accordance with the provisions of the Copyright, Designs and Patents Act 1988. All rights reserved.

AHDB (logo) is a registered trademark of the Agriculture and Horticulture Development Board. HDC is a registered trademark of the Agriculture and Horticulture Development Board, for use by its HDC division. All other trademarks, logos and brand names contained in this publication are the trademarks of their respective holders. No rights are granted without the prior written permission of the relevant owners.

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.

HDC is a division of the Agriculture and Horticulture Development Board.

Project Number: SF 012 (GSK200)

Project Title: Autumn sprays for the control of aphids in blackcurrant autumn 2003 – spring 2005

Project Leader: Mr Jerry V Cross
East Malling Research
East Malling
Kent
ME19 6BJ

Contractor/(s): East Malling Research

Report: Final, 2005

Publication Date: 24/06/2014

Previous report/(s): None

Start Date: 01 September 2003

End Date: 16 September 2005

Further information

If you would like a copy of this report, please email the HDC office (hdc@hdc.ahdb.org.uk), alternatively contact the HDC at the address below.

HDC,
AHDB
Stoneleigh Park
Kenilworth
Warwickshire
CV8 2TL

Tel – 0247 669 2051

GROWER SUMMARY

Headline

- A single application of an aphicide in late September or early October offers a high degree of control of aphids in blackcurrants.

Background and expected deliverables

The overall aim of the work reported here was to determine whether commercially acceptable control of the most common and damaging aphids in commercial blackcurrant production in the UK can be adequately achieved by autumn application of aphicides. Two experiments were conducted.

- The objective of the first experiment was to test different timings of autumn sprays of pirimicarb (Aphox).
- The objective of the second experiment was to test two different timings of autumn sprays of pirimicarb (Aphox), thiacloprid (Calypso) and pymetrozine.

Summary of the project and main conclusions

Two large scale replicated field experiments investigated control of aphids on blackcurrants (Cv Ben Gairn) by application of aphicide sprays in the autumn. The first experiment in autumn 2003 examined the effects of sprays of pirimicarb (Aphox) applied on 19 September, 30 September, 10 October or 20 October or of two sprays applied on 19 September + 30 September, 30 September + 10 October or 10 October + 20 October on populations of aphids that developed the following spring. The second experiment in autumn 2004 evaluated single sprays of pirimicarb (Aphox), thiacloprid (Calypso) or pymetrozine (Plenum) applied on 30 September or 8 October 2004.

The results of the first experiment indicated that a spray of Aphox in early October, at the end of the migration of the currant sowthistle aphid, can give a high degree of control of the pest, though in this case not complete control. The single spray also gave good control of permanent currant aphid, blackcurrant aphid and redcurrant blister aphid. Application of Aphox on 19 September had no, or a greatly reduced, effect. Little benefit of two versus one spray was apparent

The results of the second experiment showed that single sprays of Aphox, Calypso or Plenum in late September or early October gave 90% control of currant sowthistle aphid. Differences between the timings or between the different aphicides were not significant statistically, though Calypso gave consistently the best results. For blackcurrant aphid, best results were obtained with the spray of Calypso or Plenum on 30 September. All the treatments, except Plenum on 8 October 2004, reduced numbers of infested shoots by >90%. This latter spray of Plenum was significantly less effective, only reducing numbers of infested shoots the following spring by 75%. Calypso and Plenum at either timing gave complete control of low populations of permanent currant aphid and redcurrant blister aphid

Overall, this work indicates that a single spray of an aphicide in late September or early October will give a high degree, though not complete, control of the main aphid pests of blackcurrant. Logically, it could be expected that more persistent systemic aphicides, such as thiacloprid (Calypso) are likely to give the best results if only a single application is made and this conclusion is more or less supported by these results. The Rothamsted Insect Survey aphid suction trap records for currant sowthistle aphid could be helpful in timing of sprays.

Financial benefits

This work has identified an optimum time to apply an aphicide for controlling the main aphid pests of blackcurrant. This will help growers to avoid unnecessary applications at the incorrect time. Improved timing will enhance control and reduce the cost of control measures.

Action points for growers

- To gain a high degree of control of aphids in blackcurrants, apply an aphicide in late September or early October.