



Agriculture & Horticulture  
DEVELOPMENT BOARD



# Grower Summary

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## PO 011

Monitoring metalaxyl-M  
sensitivity in Impatiens Downy  
Mildew isolates from 2012  
infections

Final 2012

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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 HDC office ([hdc@hdc.ahdb.org.uk](mailto:hdc@hdc.ahdb.org.uk)), quoting your HDC number, alternatively contact the HDC at the address below.

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

**Project Number:** PO 011

**Project Title:** Monitoring metalaxyl-M sensitivity in Impatiens Downy Mildew isolates from 2012 infections

**Project Leader:** Dr Philip Jennings

**Contractor:** The Food and Environment Research Agency

**Industry Representative:** W D Smith & Son

**Report:** Final 2012

**Publication Date:** 5 July 2013

**Previous report/(s):** None

**Start Date:** 1 April 2012

**End Date:** 30 September 2012

**Project Cost:** £890

## Headline

All nursery and garden isolates of impatiens downy mildew collected during 2012 were sensitive to metalaxyl-M.

## Background

Early and widespread introduction of a metalaxyl-M resistant strain of the pathogen responsible for impatiens downy mildew infections in commercial production in 2011 meant that the disease proved difficult to control with the range of fungicides available. It is hoped the pro-active decisions made by the industry to restrict the production of cutting raised plants will minimise infections in 2012, however the risk of infection still remains. This small scale work aims to provide growers with:-

1. An early warning system for identifying metalaxyl-M resistance in any infections arising in 2012, in order to assist with decisions on suitable spray programmes.
2. Guidance on the prevalence, persistence and geographical distribution of the metalaxyl-M resistant isolate compared to metalaxyl-M sensitive isolates in the wider environment.

## Summary

A total of 10 samples were received from eight different locations, with the first sample arriving on the 15<sup>th</sup> May 2012 and the last on the 27<sup>th</sup> September 2012. The samples were received from four nurseries (although one sample was too badly decomposed to recover) and four private gardens. All the infected plants were from seed raised material.

Each isolate was tested against three replicate 6 week old impatiens plants treated with a metalaxyl-M soil drench (as Subdue at 12.5 mL product/100L water @ 10% of pot volume) two days prior to plant inoculation and three untreated control plants.

All the isolates for which a test result was obtained (nine) were designated as metalaxyl-M sensitive. This designation was based on no disease development on any of the metalaxyl-M treated plant, but disease symptoms on all the control plants, i.e. the disease had taken but was controlled by the application of metalaxyl-M.

The result of each test was immediately sent to the HDC research manager for dissemination as deemed appropriate.

## **Financial Benefits**

In the UK, the annual retail value of the impatiens crop before 2008 was estimated to be £40m; however the onset of impatiens downy mildew has dramatically reduced this value. The outbreak of downy mildew in 2011 demonstrated that the disease has potential to destroy whole site annual production as well as undermine consumer confidence in this commercially important product.

Prompt (up to 10 days after sample receipt) and widespread (sample originator and the wider network of growers) reporting of the metalaxyl-M resistance status of any infections occurring in 2012 would allow growers to ensure that spray programmes used will be appropriate and effective in minimising losses that may result from any outbreaks.

## **Action Points**

From the limited evidence of this project during 2012, fungicides containing metalaxyl-M can still be effectively used on commercial nurseries in spray or drench treatment programmes to control the disease.