

Grower Summary

FV 387

Improving Quality and
Extending the Season for Late
UK Leeks

Final 2011

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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 HDC office (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: FV 387

Project Title: Improving Quality and Extending the Season for Late UK Leeks

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Industry Representative: Patrick Allpress, Allpress Farms

Report: Final 2011

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Previous report/(s): None

Start Date: 01 November, 2010

End Date: 31 October, 2011

Project Cost: £24,350

Headline

- This project investigates the potential for extending the season of UK leeks by 3-4 weeks which would significantly reduce the dependence on leek imports during May and June.

Background and expected deliverables

The season for UK leeks starts at the end of June with transplant plants produced under glass. These plants are then transplanted outside under crop covers. The season then runs through until late April/early May in the following year. The crops for the latest part of the season are direct field drilled in the previous May for harvest up until late April/early May the following year.

The season finishes usually because the old season crop runs to seed (bolts) making it unacceptable for the market.



Figure 1: An example of external bolting in leeks at the field site taken 26th May after harvesting.

In many similar biennial crops such as onions, carrots and parsnips the use of a sprout suppressant reduces bolting and re-growth to allow a longer marketing season. The use of these sprout suppressants also offers improvements in quality and shelf life for late season

produce. The use of such materials has not been investigated in leeks previously and hence this study was proposed by the British Leek Growers Association.

Summary of the project and main conclusions

The application of Fazor (maleic hydrazide 60%) gave a highly significant reduction in bolting for late leek production under these conditions. When it was applied in the autumn, although it reduced bolting very well, it also produced short, fat, soft leeks with a poor shelf life, which were unacceptable. When applied at the latest timing in mid-April it failed to control bolting. The March application however gave a significant reduction in bolting whilst showing few negative effects. There does appear to be a window somewhere between January and April, which should offer the best compromise between these two situations. Further research is needed to optimize the timing within this window.

The other two products tested: Canopy (mepiquat chloride 30% & prohexadione-calcium 5%) and Sunorgpro (metconazole 9%) didn't show any significant benefits to leek production.

Further work is required to pin point more accurately the best application timing between January and April, the rate of use also needs to be confirmed. Following confirmation of the timing window and rate, it will be necessary to investigate how different varieties react to the application of maleic hydrazide. We also need to know how the technique can be integrated with cold storage to further extend the UK season of production. The use of maleic hydrazide is likely to exceed the current Maximum Residue Level (MRL) for leeks as the use is not an approved use. Once the timing and rates have been confirmed therefore, residue studies will be required to submit data to allow an increase of the MRL, to comparable levels with other crops where the active is in approved use. Following this increase in MRL an application for an off-label approval could be submitted.

Financial benefits

Using this technique could extend the leek season by up to four weeks, potentially allowing year long supply of British leeks to consumers when used with the correct storage. Given that the total value of leek production in the UK is currently worth £35,000,000 this could add a further £2,500,000 worth of production value to this figure.

Action points for growers

There are no action points for growers at present as further work is required to refine the timing of application. Maleic hydrazide is not currently approved for UK use in leeks.