



Agriculture & Horticulture
DEVELOPMENT BOARD



New Project

FV 307b

Vining & podded peas: control of
volunteer potatoes by vision guided
spot spraying

Project Number:	FV 307b
Project Title:	Vining & podded peas: control of volunteer potatoes by vision guided spot spraying
Project Leader:	Jim Scrimshaw
Contractor:	PGRO
Industry Representative:	Richard Fitzpatrick, Holbeach March Cooperative
Start Date:	01 April 2013
End Date:	31 March 2015
Project Cost (total project cost):	£52,114

Project Summary:

To evaluate the use of a precision guided spot sprayer for the control of volunteer potatoes in vining peas and edible podded peas. In the first year, spot applications of glyphosate will be made in small plot field trials of peas sown at three row widths and in the second year in two commercial crops of infested vining peas. Crop and potato effects will be monitored, and crop samples taken from treated and untreated areas adjacent to the treated potatoes for residue analyses.

Aims & Objectives:

This project is designed to evaluate the potential for the use of the guided spot weeder, previously developed for use in transplanted crops and onions and leeks (FV 307 & 307a), for volunteer potato control in a vining pea crop.

The study is to take place over two years, the first year with small plot replicated trials looking at equipment efficacy in different pea row widths with specific adjustments to hardware/software to give a configuration specific to performance in a pea crop. Dye & glyphosate applications to plots will be monitored and analysed to indicate efficacy in controlling potatoes and crop residues.

The second year trials will be carried out in two commercial crops where volunteer potatoes are indicated to be a problem. Again efficacy, dye and glyphosate assessments will be taken.

Benefits to industry

- Current approval for chemical potato control will be revoked after 2013.
- Spot weeding of volunteer potatoes reduces the risk of crop contamination and overall chemical cost.
- Precision treatment reduces the need for hand pulling of potatoes saving around £60 /ha.
- Targeting the potato reduces the risk of crop damage by herbicides
- Reduction of contaminants reduces factory cleaning costs at the factory and the risk of crop rejection.
- Prevention of potential loss of around £3000 for each 10 tonne load of peas delivered.
- Validate the use of the technology and residues of glyphosate in edible podded peas

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