



Agriculture & Horticulture
DEVELOPMENT BOARD



New Project

BOF 73

Evaluation of potential alternative herbicides for narcissus following the loss of active ingredients

Project Number:	BOF 73
Title:	Evaluation of potential alternative herbicides for narcissus following the loss of active ingredients
Start and end dates:	1st February 2011 to 30th November 2012
Project Leader:	Cathy Knott
Industry Representative:	Julian Perowne, Jack Buck Farms Ltd
Location:	One site: Jack Buck (Farms) Ltd., near Moulton Seas End, S. Lincolnshire on a light silt soil in a commercial crop of narcissus (cv. Tamsin) planted 2009 autumn, down for 3 years.
HDC Cost:	£10,626

Project Summary:

There are very few herbicide recommendations for flower-bulbs, because crop protection companies cannot justify the high cost of the development and approval process for a small market. Growers rely heavily on off-label usage. There may be further losses where Long Term Arrangements have to be converted to SOLAs in the second tranche (CRD website) if there are no, or adverse, data for operator exposure at harvest.

Authorisation of herbicides for application at the 'cyanazine' timing when narcissus leaves were 7-10cm close to cropping will be difficult because of UK restrictions on operator exposure. In previous trials (BOF 52) there were very few weeds at this stage.

At cropping stage, weed seeds are exposed where pickers disturb soil therefore many growers used metazachlor every year post-flower cropping. However, dose rate restriction to 1000 g a.i./ha (equivalent to Butisan S 2.0 L/ha) to be applied only one year in three will pose problems.

This trial will therefore concentrate on herbicide applications at post-cropping stage. The herbicides selected to be sprayed early March 2011 at normal and 2 x normal dose rates and evaluated for crop safety and weed control.

There are some foliar (e.g. glyphosate) and residual (chlorpropham) herbicide options for use during the dormant period, but growers requested an evaluation of alternative herbicides applied pre-emergence in November 2011. These would be applied separately in an adjacent area and not as part of a programme with the post-cropping treatments, so that the effect of individual treatments can be assessed.

In the second year February/March 2012 effects on leaf emergence from the bulb (flower initiation, development) will be assessed for both pre-emergence and post-cropping treatments.

The narcissus flowers will be picked as normal in 2011 before the post-cropping herbicides are applied.

SOLAs may need to be sought by HDC if suitable candidates are found.

Aims & Objectives:

Project aim:

To identify alternative herbicides for weed control in narcissus with potential for SOLAs following the loss/restrictions of active ingredients, e.g. metazachlor (Butisan S).

Project objectives:

- To select new potential herbicides for application post-cropping and pre-emergence in narcissus in a screening trial in one variety.
- To evaluate efficacy and crop effects after post-cropping application (March 2011) and after pre-emergence application (November 2011).
- In the second year February/March 2012, not cropped, allow narcissus to flower to assess effects on the bulb (flower initiation, development).

Further information

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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