

2013 Scottish Growing Crop Survey for *Dickeya*

In total, 671 samples were tested this year for *Dickeya* spp. from field grown potatoes showing signs of blackleg. The pathogen was not detected in any of these samples. This marks the 3rd consecutive season that Scotland has maintained its freedom from *Dickeya*.

Dickeya spp., particularly '*Dickeya solani*' is a major pathogen of potato in many European countries and Israel. It has been found previously in a small number of ware crops grown in Scotland during 2009 and 2010, all of which were produced from non-Scottish-origin seed. With the support of industry, who continue to make informed choices particularly with regards the origin of their seed, and the introduction of strict legislation in 2010, Scotland has maintained its freedom from this pathogen.

It is particularly noteworthy that no positive findings were made in 2013 as the prevailing weather conditions over the growing season, warm and dry, favoured the pathogen. The lack of any positive findings this year puts to rest a possible theory that the pathogen had already established itself in Scotland and was lying dormant during the unfavourable summers of 2011 and 2012. These results reinforce the view that seed is the source of the infection and serve as a timely reminder that purchasing Scottish-origin seed potatoes is an effective means of maintaining our freedom from *Dickeya* infection.

Contact: Dr Gerry Saddler

Head of Diagnostics and Analytical Services,

Science and Advice for Scottish Agriculture (SASA)

Roddinglaw Road, Edinburgh, EH12 9FJ, UK

T: +44(0)131 244 8925 | F: +44(0)131 244 8988 | E: gerry.saddler@sasa.gsi.gov.uk |

Background:

The 2013 survey was carried out in support of Scottish legislation which established a “nil” tolerance for *Dickeya* infections in seed crops. The survey was designed to target crops which held the greatest risk of carrying or contracting the disease and included all the small number of crops grown from non-Scottish seed.

2013 continued the trend of previous years with a marked reduction in the amount of non-Scottish origin crops grown. In all there were 56 seed crops from Northern Ireland; 53 of these crops were pre-basic seed, no blackleg was observed at inspection. The 3 crops of basic seed were all inspected and 2 of these crops which presented blackleg symptoms were sampled and tested. The 6 crops originating from England and Wales were all inspected, 2 of these crops presented blackleg symptoms and were sampled and tested.

In addition, 6 groundkeepers sampled from fields which had a *Dickeya*-infected crop in 2009-10 were also tested, as were a large group of crops deemed to be at higher risk. This latter category included ware crops grown on holdings which had a previous *Dickeya* infection, also seed and ware crops grown in the vicinity of watercourses known to be infested/previously infested with *Dickeya* spp.

Finally, a representative sample of Scottish-origin seed crops were also included, comprising of roughly 10% of all seed crops, selected from PB, SE or E crops showing blackleg symptoms during the GCI. (A number of ware crops were also included in this category).

No samples tested positive for *Dickeya* spp..

Table 1. Breakdown of samples included in the 2013 survey

Region	Type of Crop					Total
	Seed	Ware	Non-Scottish Origin	Groundkeepers from fields with <i>Dickeya</i> -infected crops in 2009 -10	Crops at higher risk	
Northern	17	-	-	-	8	25
Grampian	159	-	-	1	17	177
Central	325	18	-	3	46	392
Southern	33	15	4	2	23	77
TOTAL	534	33	4	6	94	671