

BLACKLEG IN POTATOES

Pectobacterium and *Dickeya*



Blackleg and soft rot are common bacterial diseases in potato, especially in a cool and wet climate. They are caused by bacteria from the genera *Pectobacterium* and *Dickeya*.

Blackleg is most often spread by infected seed potatoes. Not only tubers with visible symptoms are carrying the disease, it also occurs in a non-visible, dormant, form.

The bacteria can survive in the tuber throughout storage and causes blackleg and soft rot in the field. The bacteria are spread with the seed potato and we are therefore working with a method of analysis which assesses the level of dormant infection in the seed lot.

The method used is based on PCR, which means that the presence of bacteria is determined by DNA technique. The presence of several different species of *Pectobacterium* and *Dickeya* is determined by this test. If the test is positive, there is a possibility to perform further tests to identify if the most harmful species are present.

PCR method

The advantage of using PCR compared to other techniques is that the analysis can be performed at an earlier stage since the potatoes do not have to develop sprouts, the method is more sensitive and the bacterial species can be determined.

Sample size and sampling

It is important that enough tubers are tested from the same seed lot so that the sample and analysis result is representative of the whole lot. The sample should contain 100 tubers in total. The sample is then divided into 5 sub-samples of 20 tubers each.

To minimize the cost of the analysis and shipping, you can do the sampling from the tubers yourself. Sampling materials and instruction can be ordered at: agritech.sweden@intertek.com

Ordering and sample labelling

The order form must be sent to agritech.sweden@intertek.com and a printed copy must be included with the samples. Please note that the order form is composed by two pages. The customer information must be filled in on page 1, including e-mail and address where the results are to be sent, and the sample ID number and tests to be performed must be filled in on page 2.

The Intertek General Terms and Conditions of Services applies, a copy of which can be obtained from www.intertek.com/terms.

Shipping

Samples can be shipped to the laboratory by preferred courier or they can be left directly to us (see opening hours below). If the samples are shipped pre-sampled it is important to keep them frozen throughout transportation.

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Opening hours: 8.00am - 4.30pm

