



Horticultural
Development
Company

New Project

PC 297

Lettuce: To investigate nitrate levels in a range of butterhead and curly lettuce

Project Number: PC 297

Title: *Lettuce: To investigate nitrate levels in a range of butterhead and curly lettuce*

Start and end dates: 1 November 2008 to 31 May 2009

Project Leader: Dr Julian Davies, STC Research Foundation
Mr Colin Bloomfield, Madestein Ltd

Project Co-ordinator: Mr Geoffrey Smith, Mapleton Growers Ltd

Location: Trials - Stockbridge Technology Centre, Cawood, Selby, North Yorkshire
Nitrate analysis – NRM Laboratories, Coopers Bridge, Bracknell, Berks

Background and project objectives

Nitrates in lettuce are one of the main issues facing protected lettuce producers in the UK. Producers must ensure that their crops comply with the EU regulations regarding nitrate residues. Growers closely adhere to the code of Good Agricultural Practice (GAP) but lettuce crops during the winter can still exceed the permitted limit for nitrate. Summer planted crops can also exceed the permitted levels as the limit is lower during the summer. Winter crops are most at risk of exceeding the limits due to the longer production period, fluctuating rates of growth due to both temperatures and light quality and day length. Currently there is a derogation for UK growers.

This research will examine a range of butterhead and curly lettuce cultivars for their nitrate content when grown during the winter. There is a need to identify if there are any differences between cultivars which might help growers to reduce the risk that their lettuce will not meet the EU nitrate limits. Even if there is a small effect of perhaps 300-500ppm this could help growers produce crops which would consistently meet the regulations. A smaller more in depth study will also examine the potential sample to sample variability by looking at individual head to head variability and also looking at the nitrate content in different parts of the plant. This would help to better understand how harvesting and trimming strategies could help reduce the nitrate content of the over-winter crops and if there are differences between cultivars in the nitrate content of the oldest leaves.

Further information

Email the HDC office (hdc@hdc.org.uk), quoting your HDC number, alternatively contact the HDC at the address below.

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