New Project

TF 200

Apple: Determining the effectiveness of novel calcium products to increase fruit calcium, increasing storage potential and potentially reducing bitter-pit
Project Number: TF 200

Title: Apple: Determining the effectiveness of novel calcium products to increase fruit calcium, increasing storage potential and potentially reducing bitter-pit

Start and end dates: 1st April 2011 to 30th September 2012

Project Leader: Gary Saunders, East Malling Research

Industry Representative: Nigel Kitney

Location: East Malling Research, New Road, East Malling, Kent. ME19 6BJ

HDC Cost: £2,970

Project Summary:

The aims of this project are to evaluate eight foliar calcium products against a calcium chloride treatment and an untreated control on Bramley apple to determine their effectiveness at increasing fruit calcium and storage potential and their effectiveness at reducing bitter-pit. Foliar applications of each product will be made in accordance with manufacturer's recommendations for best practice. The trial will be laid out in a randomised block design as approved by the EMR statistician.

At harvest two sets of fruit samples will be taken: 1) for firmness and mineral analysis determination (including calcium content) and prediction of storage potential 2) for air storage to determine bitter-pit, other physiological disorders and fruit firmness ex-store. The cost of application of each product assessed will be determined and the cost of product application and benefit to the crop will be compared.

Aims & Objectives:

(i) Project aim:

To determine the effectiveness of a range of foliar calcium products to increase fruit calcium, increase storage potential and reduce the incidence of bitter-pit

(ii) Project objectives:

For each of the products tested
1. To determine the nutrient analysis (including calcium) and firmness of the fruit at harvest
2. To calculate fruit storage potential
3. To determine the level of physiological disorders of the fruit ex-store post-Christmas
4. To determine the cost of application
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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