



Agriculture & Horticulture
DEVELOPMENT BOARD



New Project

FV 401

Vining peas: Development of an improved standardisation procedure for the pea tenderometer

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| Project Number: | FV 401 |
| Project Title: | Vining peas: Development of an improved standardisation procedure for the pea tenderometer |
| Project Leader: | Stephen Belcher |
| Contractor: | PGRO |
| Industry Representative: | Richard Fitzpatrick |
| Start Date: | 01/03/2012 |
| End Date: | 28/02/2013 |
| Project Cost: | £5,349 |

Project Summary:

The Martin pea tenderometer is used by growers and processors to measure the maturity of vining peas for freezing or canning. However, the mechanical nature of the mechanism requires regular adjustments to maintain the readings to be in line with the industry standard which is the master tenderometer held by PGRO. The recent development of a digital tenderometer (Dodman Engineering) has resulted in more stable mechanism with a more accurate and reliable measurements to be made over time.

The PGRO tenderometer standardisation service maintains a master Martin tenderometer but with an increasing uptake of the digital instrument by the industry, there is a need to substitute the Martin master with the latest technology. This project will validate the digital instrument within the service and eventually replace the current master. In order to provide material for cross checks, peas of different size grade varieties including petits pois, will be grown at suitable sites and harvested at a range of maturity values. After vining, samples will be used to make TR readings from the PGRO master and the Dodman. In addition, the digital tenderometer will be included in the factory checking procedures to provide a valid data set for a range of pea types with different seed sizes.

Aims & Objectives:

(i) Project aim(s):

To validate the substitution with a digital tenderometer of the Martin tenderometer within the provision of a standardisation service for pea tenderometers on the farm and processing factory.

(ii) Project objective(s):

- To validate the use of the Dodman digital pea tenderometer as a reliable substitute for the Martin tenderometer.
- To enable this substitution to be part of a national standardisation service for grower and processor-owned pea tenderometers
- To reduce the need for regular adjustments to maintain standard measurements
- To reduce time spent on weekly standardisation checks
- To provide a reliable service for the industry

Benefits to industry

- To provide a more efficient service to the industry
- To reduce the number of cross checking currently required by the standardisation service
- To provide reliability and reduction of the need for frequent adjustments through the harvesting season
- To reduce the overall costs of the standardisation

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