



Agriculture & Horticulture
DEVELOPMENT BOARD



New Project

FV 409

Nitrogen and phosphorus responses
in Sweetcorn

Project Number:	FV 409
Project Title:	Nitrogen and phosphorus responses in Sweetcorn
Project Leader:	Dr Richard M. Weightman
Contractor:	ADAS UK Ltd
Industry Representative:	Neil Cairns Barfoot Farms Ltd
Start Date:	1 st April 2012
End Date:	31 st December 2014
Project Cost:	£137,638.00

Project Summary:

In recent years there has been no work on N or P responses in Sweetcorn. The aim of this work is to provide recommendations for N and P in the Sweetcorn crop which can guide growers of modern varieties, and feed into the next revision of RB209. Work will be carried out over two cropping seasons (2012 and 2013) and in each season will be carried out at three sites (Hampshire, Chichester Plain and Isle of Wight). For N responses, within each site, both an early sown (March/April) and a late (June) drilled crop will be studied. For P responses, the early season crop only will be studied referentially. Sweet corn fresh yield and cob sweetness will be recorded. Total N and P uptake will also be measured in order to quantify nutrient requirement, for crops fertilised at the optimum, and to quantify soil N and P supply (using uptake in nil-N or nil-P plots).

Aims & Objectives:

(i) Project aim(s): The aim of the project is to improve recommendations for N and P applications and improve efficiency of production of Sweetcorn.

(ii) Project Objectives: Field based experiments on grower holdings will be carried out to:

- Measure yield responses of sweet corn to N and P fertiliser application in a selected commercial genotype,
- Evaluate N and P utilisation in relation to soil indices and soil mineral nitrogen,
- Quantify N and P uptake to better guide fertiliser recommendations.

Benefits to industry

The project will provide a better understanding of the nutrient requirements of modern Supersweet Sweetcorn types, which will enable more efficient use of fertilisers by the industry. This will allow growers to meet customers' requirements while avoiding risk of causing N or P pollution in the context of the Nitrates or Water Framework Directives, and make better use of soil N supply.

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