



Agriculture & Horticulture
DEVELOPMENT BOARD



New Project

TF 172b

Evaluation and development of new
rootstocks for apples and pears - new work
on new plantings

Project Number: TF 172b

Project Title: Evaluation and development of new rootstocks for apples and pears – new work on new plantings

Project Leader: Gary Saunders

Contractor: East Malling Research

Industry Representative: Peter Checkley
Broadwater Farm

Start Date: 1st May 2012

End Date: 30th April 2016

Project Cost £41,992

SUBJECT TO CONTRACT

Project Summary:

This proposal represents the continuation of HDC project TF172 entitled 'Evaluation and development of new rootstocks for apples, pears, cherries and plums' and would deliver years seven to ten of the originally envisaged ten year project, but on apple and pear only. This project provides continuity of the trialling of fruit tree rootstocks at EMR, looking for rootstocks of intermediate vigour between M27 and M9 and for a replacement for M26 in apple. In pear there is a need for increased dwarfing using quince or preferably *Pyrus* rootstocks.

Aims & Objectives:

(i) Project aim(s):

The main aim of the project is to acquire, evaluate and develop in UK growing conditions new apple and pear rootstocks produced by breeding programmes both at EMR and abroad.

(ii) Project objective(s):

Apple

- To select and develop apple rootstocks with intermediate vigour between M27 and M9, which performs well in the nursery and which produces precocious and consistently abundant yields of high quality fruits of the marketable size grades
- To select and develop a replacement rootstock in the M26 vigour category, which does not suffer from burr knotting, poor calcium uptake or physiological disorders in the scion fruit. This rootstock should also induce precocious and abundant yields of high quality fruits
- To select and develop dwarfing rootstocks for apple which exhibit improved resistance to drought, (weed competition) replant disease and soil borne diseases (e.g. collar/crown rot)

Pear

- To select and develop quince rootstocks more dwarfing than Quince C with improved precocity of cropping
- To select dwarfing Pyrus rootstocks that are easy to propagate, and that induce good yield precocity/productivity

Benefits to industry

The major benefit to industry from the evaluation of these rootstocks is the potential for the introduction of new rootstocks with increased precocity and yield with lower requirements for chemical or mechanical growth control. The introduction of improved rootstocks suited to the UK will have a huge impact on the profitability of UK orchards.

Disclaimer

AHDB, operating through its HDC division seeks to ensure that the information contained within this document is accurate at the time of printing. No warranty is given in respect thereof and, to the maximum extent permitted by law the Agriculture and Horticulture Development Board accepts no liability for loss, damage or injury howsoever caused (including that caused by negligence) or suffered directly or indirectly in relation to information and opinions contained in or omitted from this document.

No part of this publication may be reproduced in any material form (including by photocopy or storage in any medium by electronic means) or any copy or adaptation stored, published or distributed (by physical, electronic or other means) without the prior permission in writing of the Agriculture and Horticulture Development Board, other than by reproduction in an unmodified form for the sole purpose of use as an information resource when the Agriculture and Horticulture Development Board or HDC is clearly acknowledged as the source, or in accordance with the provisions of the Copyright, Designs and Patents Act 1988. All rights reserved.

AHDB (logo) is a registered trademark of the Agriculture and Horticulture Development Board. HDC is a registered trademark of the Agriculture and Horticulture Development Board, for use by its HDC division. All other trademarks, logos and brand names contained in this publication are the trademarks of their respective holders. No rights are granted without the prior written permission of the relevant owners.

Further information

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

HDC
AHDB
Stoneleigh Park
Kenilworth
Warwickshire
CV8 2TL

Tel – 0247 669 2051

HDC is a division of the Agriculture and Horticulture Development Board.