

Grower Summary

TF 172a

Evaluation and development of
new rootstocks for apples – on-
going work on existing plantings

Annual 2014

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Further information

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Project Number:	TF 172a
Project Title:	Evaluation and development of new rootstocks for apples – on-going work on existing plantings
Project Leader:	Gary Saunders, East Malling Research (up to March 2014) Felicidad Fernández, East Malling Research (from April 2014)
Contractor:	East Malling Research
Industry Representative:	Peter Checkley, Howard Chapman Ltd., Broadwater Farm, Broadwater Lane, West Malling, Kent, ME19 6HT
Report:	Annual report 2014
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Previous report(s):	TF 172 Final Report August 2012
Start Date:	1 May 2012
End Date:	30 April 2016
Project Cost:	£51,731

GROWER SUMMARY

Headline

- In one trial nearing completion, two selections from the East Malling Rootstock club breeding programme were assessed but neither AR801-11 nor AR680-2 were an improvement on the M9 rootstock for Queen Cox grown under conventional management
- Of the more recently planted conventional and organic rootstock plots, it is too early to determine if any of the selections evaluated are better than current industry standards

Background

A review of AHDB Horticulture-funded rootstock research projects (project TF 158) acknowledged that there was a strong need for new or improved rootstocks for apples, pears, plums and cherries that are dwarfing, precocious, high yielding and offer some measure of drought tolerance. The report recognised that rootstocks are a vital part of the currently used growing systems for tree fruits but those currently used in tree fruit production have been grown for decades and all have some limitations. Breeding programmes in the UK and abroad have generated a number of promising rootstocks in recent years, which are becoming increasingly available to growers. The report recommended that UK trialling of promising UK and overseas material should continue and that technology transfer should be improved. This work was then undertaken in AHDB Horticulture project TF 172 Evaluation and development of new rootstocks for apples, pears, cherries and plums.

This project (TF 172a) is a continuation of AHDB Horticulture project TF 172 but focusing only on apple rootstocks. The main aim of the project was to acquire, evaluate and develop in UK growing conditions new apple and pear rootstocks produced by breeding programmes both at EMR and abroad. This project provided continuity of the trialling of fruit tree rootstocks at EMR, looking for rootstocks of intermediate vigour between M27 and M9 and a replacement for M26 in apple with continued evaluation of existing plots that were identified as having new rootstocks of potential merit.

Selection and release of improved rootstocks to the industry will be of benefit as the introduction of new rootstocks with increased precocity and yield with fewer requirements for

chemical or mechanical growth control will have a huge impact on the profitability of UK orchards.

Summary

This project (TF 172a) is a continuation of AHDB Horticulture project TF 172 for the evaluation of trees in some of the existing plots from AHDB Horticulture project TF 172, these plots were those identified as containing rootstocks with potential as commercial rootstocks rather than selections that were identified as 'also ran'.

Three existing plots containing the following rootstocks were assessed:

- Plot CE190: Rootstocks planted in May 2004 with Queen Cox scion and compared to M9 were AR801-11 and AR680-2.
- Plot EE207: AR852-3, AR839-9, B24, R59 and R104 were assessed with M26, M9 and M27 standards; the orchard was planted in March 2010 with Braeburn and Gala scion varieties.
- Plot VF224: AR10-3-9, AR809-3, AR835-11, R80 were assessed with MM106 and M116 standards with Red Falstaff as scion variety, planted in March 2010.

Financial Benefits

It is too early to determine if there are any financial benefits from the recently planted plots.

Action Points

There are no action points at present.