

Project title: The EMLA Scheme
Project number: TF 21 [Previously APCR SP 21]
Report: Annual report 1997/1998
Project leader: Dr T Adams and Dr A Webster, HRI East Malling
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ANNUAL PROJECT REPORT 1997/98

Customer, Project, Code and Title: East Malling Trust for Horticultural Research, APRC (SP 21). EMLA apple rootstock scheme and apple scionwood scheme.

Project Leaders: A N Adams and A D Webster

Target Spend: £30K

Report 1997/98

The EMLA scheme has for many years provided the nursery industry with fruit tree plant material of the highest health status that is true to type, for propagation within the MAFF Plant Health Propagation Scheme (PHPS). Since 1993 HRI has been responsible for the maintenance of the Nuclear Stock Plants and for testing them and trees propagated from them at the next stage in the propagation chain, for virus infection. After numerous discussions with the industry and with the funding bodies, the old scheme has been replaced by a new project, started in April 1997. This new project has two objectives: a) to maintain, test and propagate the EMLA Nuclear Stock of the main commercial apple rootstock types and b) to evaluate new clones and cultivars of tree fruit species, with particular emphasis on those identified and produced on grower holdings. This second part of the new project is complementary to the variety testing project funded at The Brogdale Trust.

a) Tests for chat fruit and for virus and virus-like diseases causing symptoms in the fruit of cv. Golden Delicious, were started on Nuclear Stock of M9, M25, M26, M27, MM106, MM111, EA16 (red leaved) and the indicator types Lady Lambourne, Shay's Russian, Spy 227, *Malus platycarpa*, Virginia Crab.

Red-leaved nurse rootstocks, micropropagated at HRI Efford, were distributed to a Foundation nursery (Blackmoor) together with buds of MM106 from Nuclear Stock. This material is for the renewal of propagation stock for the production of Certified apple rootstocks.

b) Much effort in 1997/98 was devoted to drafting and developing the new integrated scheme for variety and clonal evaluation, which also embraces part of the old EMLA scheme. In the future, this will be conducted as two complementary and integrated projects; one funded at The Brogdale Trust and the other at HRI-East Malling. All new trials evaluating new varieties and clones will be conducted on the Bradbourne site, as part of the 'Bradbourne at Brogdale' initiative. During the year new protocols for variety evaluation were developed in collaboration with Dr. David Pennell. An exhibit on the new scheme was prepared together with explanatory leaflets and these were used to launch the new scheme at the Marden Fruit Show.

As part of the clonal evaluation component of the new integrated scheme, project teams of experts visited several grower sites examining and appraising the merits of clones of the apple varieties Red Charles Ross, Red Fiesta, and Empire.

Negotiations were undertaken with the owners of several new clones of Gala with the aim of preparing a new trial to compare these on the Bradbourne site. These negotiations were successful and graftwood of Max Gala, Gala No.4, Obragala, Brookfield, Mondial Gala, Royal Gala and Galaxy was obtained and used to raise trees on M.26 rootstock.

In collaboration with Mr. Nigel Osborne (Farm Manager East Malling) the first trials of new apple varieties have been planted recently on the Bradbourne site.