



APFIP Variety Evaluation Network

The world of variety introduction and management has changed considerably in the past few years. It is unlikely that new varieties will be freely available to growers as has been the case in the past. Plant Breeders Rights (PBR) and trade marks (describing fruit specifications) are now widely used in the industry to control both tree numbers and fruit marketing. In this environment it is vital that growers have access to independent variety performance data collected locally on which to base their planting decisions.

The Australian apple industry currently makes up 0.45% of world production and the growing areas are spread over the continent from 28 to 43 degrees south of the equator. This range of growing conditions means that it is very difficult for new variety performance to be extrapolated from just one or two sites.

In 1997 when APFIP was created it was on the basis of these three key objectives:

To develop and promote standards for pome fruit propagation material that will assist the international competitiveness of the Australian pome fruit industry;

To develop and promote independent evaluation of pome fruit propagation material for the pome fruit industry in Australia;

To facilitate an efficient entry into Australia of pome fruit propagation material with characteristics that will benefit the commercial potential of pome fruit production in Australia.

The APFIP evaluation approach is:

“To develop and deliver to the Australian pome fruit industry independent and objective variety/rootstock information, using principles of security, independence and efficiency”.

APFIP's variety evaluation system operates nationally and is supported by a number of Australian and international variety owners and managers. Evaluation agreements have been reached with twenty-five variety owners/managers including the Australian pome fruit breeding programs and all the major Australian nurseries and associated groups. A number of overseas agencies are represented through the agreements with Australian nurseries but there are separate agreements with three international breeding programs.

To this point in time one hundred and thirty nine varieties (eighty seven apples and fifty two pears) have been evaluated in the APFIP sites. Identification of new varieties that perform poorly in a range of climates has been a key outcome of the program. APFIP targets varieties at their pre commercial stage so that the information collected can be used in the decision on whether or not commercialization will occur and in the development of the fruit specifications. Clearly the aim is to identify the varieties that perform well but keeping non-performing varieties out of the commercialization process avoids potential losses for all that may have been involved.

APFIP has a fulltime Evaluation Coordinator responsible for all aspects of the evaluation process. Evaluation agreements are completed with variety owners/managers; these include fees for the completion of the evaluation. There are currently nine [9] sites around the country on growers properties as part of commercial orchards.

- Stanthorpe (QLD)
- Orange (NSW)
- Batlow (2) (NSW)
- Shepparton (VIC)
- Yarra Valley (VIC)
- Huon Valley (TAS)
- Lenswood (SA)
- Manjimup (WA)

All involved complete confidentiality and non-propagation agreements. Due to the confidential nature of agreements with variety suppliers varieties are entered into the sites using APFIP codes that ensure that those involved do not know the identities of the varieties. The performance data is collected by contracted data collectors in each area and entered into a secure web based database. The evaluation information is available in the first instance to the variety owner/manager. After three seasons of data has been collected approval is sought from the variety owner/manager to publish the information through the APFIP website www.apfip.com.au in the first instance. An annual variety report is also prepared. This is a snapshot of just a few of the varieties that have been evaluated and is supplied to all apple & pear growers.

Evaluation Material Register.

APFIP has developed an Evaluation Material Register which shows the entire apple and pear varieties that have been evaluated, the register consists of the variety name, supplier, and the areas that it has been evaluated and the current status of the variety in regards to its evaluation.

Due to the confidential information in the register APFIP is currently encouraging and seeking approval from all its suppliers to publish their variety information in this type of format. APFIP feels this type of register published on an annual basis would greatly improve the exposure to the industry of its evaluation network.

APFIP Review

In 2006 APFIP commissioned *Scientific and Environmental Services P/L* to conduct a review of its business, the following statements were made in regard to the evaluation system.

“The system comprises simplified, rapid evaluation procedures that do not involve the rigorous scientific design of the former state department schemes. While this prevents statistically robust conclusions regarding the performance of individual varieties, it does enable the identification of unsuitable varieties in a rapid, cost-effective manner. Because all varieties are managed in a standard way, some that require specific treatment, e.g. special pruning, may not perform optimally. In addition, the system does not allow problems in large scale production, processing or marketing, such as susceptibility to post harvest disorders, to be identified prior to release. Despite these limitations, the procedures are well conceived, practical, independent and provide a credible source of information”. (Review of APFIP by Scientific and Environmental Services P/L January 2006)

“The variety evaluation database developed by APFIP and accessed via the APFIP website www.apfip.com.au is a substantial achievement. It is readily accessible, flexible and can be used to provide varietal data sheets to growers. Despite the widespread use of the internet to disseminate information, there is still a need for good quality hard copy publications for easy use by growers and this need has been anticipated by APFIP, with plans to produce easy-to-read, good quality variety fact sheets from their evaluation data”. (Review of APFIP by Scientific and Environmental Services P/L January 2006)

Weather Information.

Weather data loggers are installed at 8 of the sites and the information from these is downloaded remotely and displayed both on the APFIP website and in the industry journal Australian Fruit Grower on a monthly basis. A chilling hour's calculation for each area is also provided.

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