

Senate RRAT Committee Wine Industry Inquiry

Submission by: Cooperative Research Centre for Viticulture

June 2005

Introduction

Since its inception in 1992 the Cooperative Research Centre for Viticulture (CRCV) has been a consistent proponent of industry-led R&D and a leading facilitator of a transition from individual research provider-generated programs to those based on inter-agency collaboration to promote technical innovation that meets industry-defined priorities.

In particular the R&D programs of the CRCV have had a major focus on the objective measurement of grape quality attributes to meet grape quality specifications. This work has been driven by recognition of the opportunity to increase the value of Australian grape and wine products through supplying grape purchasers with grapes of required quality and providing grape producers with the knowledge and technology to manage vineyards accordingly.

The following material is provided to inform the enquiry as to the nature of the CRCV, the determination of its research directions and its approach to the promotion and uptake of the outputs of research.

Context

The Australian wine industry includes approximately 7000 winegrape producers in six States who depend on the knowledge generated by scientific research to solve technical problems, improve production efficiencies and reveal opportunities for innovation. The core business of the CRCV is innovation in viticulture, recognising that such innovation impacts most significantly on wine production but also impacts on other vine-derived products and sectors with which the wine industry shares significant synergies viz. dried vine fruits, and table grapes. The CRCV has participant agencies conducting or co-investing in research on vine products in each sector.

The Australian wine industry has adopted a collective levy-based approach administered by the Grape and Wine Research and Development Corporation (GWRDC) to fund its viticultural research but does not own a viticultural research facility. While the industry relies on the Australian Wine Research Institute for most of its oenological research, it is almost entirely reliant on public agencies i.e. state (Departments of Primary Industry) and federal (i.e. Universities, CSIRO) institutions to conduct scientific research and deliver outputs. These agencies typically invest a total of about \$10m annually i.e. approximately 60% of the total annual Australian expenditure on viticultural research and development.

Vineyard management systems are underpinned by knowledge generated by research in plant, soil, environmental, engineering, fermentation, information and social sciences. No single research facility has the expertise and specialist equipment to comprehensively meet all present or future requirements for viticultural research. This is due to the increasing degree of research specialisation and the high cost of scientific equipment.

There are significant benefits to the industry from its relationships with a number of independent public research agencies. The benefits include shared costs, nationally distributed / regionally-adapted research outputs and the ability to draw on the key strengths and resources of individual facilities and the expertise of their staff to meet changing needs.

Role of the Cooperative Research Centre for Viticulture (CRCV)

The Cooperative Research Centre for Viticulture, a joint venture of Australia's leading viticultural research and education organisations and industry peak bodies, was established in 1992 under the Commonwealth Cooperative Research Centre's Program. At the completion of its first 7-year funding term it was renewed for a further 7 years until June 30, 2006.

Core Participants

Industry: Winemakers' Federation of Australia, Winegrape Growers Australia, Australian Dried Fruits Association, Grape and Wine Research and Development Corporation, Horticulture Australia Ltd, Australian Wine Research Institute. Wine Industry National Education and Training Advisory Council.

University: University of Adelaide, Charles Sturt University

Australian Government: CSIRO

State Government: Department of Primary Industries NSW, Department of Primary Industries Victoria, South Australian Research and Development Institute.

Supporting Participants:

The CRCV has 24 Supporting Participants including corporate wine companies, service and supply sector businesses and other universities which are formally engaged on a project basis.

Key features of the CRCV

The Cooperative Research Centre for Viticulture (CRCV) promotes and manages industry-guided, cooperative scientific research. It is the only R&D entity in which the peak industry organisations have a formal ownership stake. The Board has a majority of research users over research providers and has an independent Chair. The CEO is an ex officio member of the Board. The CRCV members own the intellectual property generated by its research and it is managed to accelerate the commercial application of knowledge and technology arising from the research. Since its inception the CRCV has progressively developed procedures to address each of the issues related to the industry's reliance on independent agencies to meet its viticultural research needs.

The key driver of cooperation between the industry and independent research organisations is the availability of funds to provide significant incentive for the contribution of non-industry controlled resources. At present these funds are chiefly provided by the R&D levies and CRC Program grants. Based on current activity of the CRCV this amounts to annual cash funds of approximately \$5.4 m annually (GWRDC levies \$3m, CRC Grant \$2.4m) to leverage annual agency co-investment of about \$5.7m.

Specific features

- Emphasis on application of outcomes for industry
- Industry-led priority setting process
- Manages a nationally relevant scientific research program
- Attracts additional Australian Government funding of industry R&D, approximately \$2m per annum
- Provides industry with the ability to engage the most relevant research providers to achieve priority objectives within a focussed seven-year program.
- Provides profile, support and funding incentives for inter-agency cooperation
- Established under formal agreements between the participating industry organisations and agencies themselves and with the Commonwealth government.
- A standard 7-year funding cycle commitment provides stability for research providers and industry.
- Trains future researchers through a commitment to PhD scholarships.

- Integrates research and development and education and training
- Owns and manages intellectual property
- Minimises ‘infrastructure’ costs
- Provides the industry with a process to promote and manage inter-agency collaboration and associated issues. It does so in way that largely avoids potential conflicts of interest and provides an independent manner for resolving those that do occur.

Priority Setting, Scope of R&D, .Research Uptake Programs and Management of Intellectual Property

Priority Setting

- In preparation of its application for a second term the CRCV established a process under the auspices of an independent industry group known as ‘Viticulture 2000’ to identify national industry research priorities. The Viticulture 2000 Central Planning Group comprised nominees of the Winemakers’ Federation of Australia (WFA), the former Winegrape Growers’ Council of Australia (WGCA), the Grape and Research and Development Corporation (GWRDC), the former Dried Fruits Research and Development Council (DFRDC), and the Australian Dried Fruits Association (ADFA). The process was executed by the CRCV with engagement of an external facilitator.

This process, guided by industry opinion leaders nominated by peers and assigned to one of three groups, Education, Oenology and Viticulture respectively, involved successive iterations of areas of interest and proved highly effective in identifying key areas for research. Nominated research providers were assigned to a fourth group, which provided advice on matters of technical feasibility.

Viticulture 2000 subsequently developed research briefs and invited potential research providers to express interest in addressing them.

Responses to the briefs were developed into research and education projects that comprise the programs of the CRCV.

The process involved 18 months of development, documentation and facilitated workshops. It provided input from all sectors of industry but from individuals rather than representatives of particular industry groups, opportunity for involvement by all potential, including international, providers, and allowed industry to engage the best available agencies to address the identified priorities.

This process provided the CRCV and the CRC Program with a very high degree of confidence that its strategic direction was sound and addressed the needs of a broad range of end-users.

Scope of R&D

- In keeping with the CRC model, the research of the CRCV comprises a portfolio of projects and programs integrated to fund and address only key strategic issues within the broader ongoing R&D needs of the industry.
- This is reflected in its aim to *“Accelerate quality viticultural management from ‘vine to palate’ ensuring the economic and environmental sustainability of Australia’s grape-growing industries through nationally integrated strategic research, proactive technology diffusion and education and training”* which:
 - *Develops and promotes innovative viticultural practices to meet grape quality specifications*
 - *Develops and promotes environmentally and economically sustainable vineyard management systems*

- *Develops and promotes the capacity to improve grapevine performance through gene technology*

Research Uptake Program

- The CRCV places particular emphasis on promoting the application of R&D outcomes.
- The CRCV typically commits about \$700,000 pa representing approx. 10% of cash resources or 5% of total cash and in-kind resources on activities to promote the application of research outputs. The CRCV has appointed a Technical Applications Manager to oversee key elements of this aspect including technical communications, arrangements involving intellectual property and the CRCV Viticare network linking regional and corporate groups to CRCV's research project activities and outputs.
- In addition to traditional 'extension' activities the CRCV seeks to maximise the value from its research by channelling technical information through the formal education sector. The formal participation of WINETAC Inc as a core participant of the Centre facilitates this aspect.
- The CRCV conducts a highly regarded series of thematic workshops "Research to Practice" which facilitate the application of key elements of the Centre's research across the industry Australia-wide.
- CRCV Technologies Pty Ltd, a separate, incorporated entity, has been established by the CRCV, as its commercial agent to facilitate commercial arrangements associated with the delivery of research outputs to the Australian industry.
- The CRCV has recognised the need to adopt a more strategic approach to achieving industry outcomes from research, in contrast to research outputs. Encouraged by CRC Program policy, it is promoting the integration of commercial application strategies with those of the research projects as part of project development. It also recognises the role of service sector businesses as intermediaries in the packaging and delivery of research outputs to achieve desired outcomes. In 2002 the CRCV successfully acquired \$4.3m of additional CRC Program funding to support a \$12m program to implement this approach in 9 priority project areas.

Intellectual Property Management

- The outputs of R&D are knowledge and technologies that may, and often are, protected by various mechanisms, eg confidentiality, copyright, patent, and trademarks, for the benefit of stakeholders.
- The CRCV has a policy of broad application of R&D outputs over commercial revenue generation but recognises that in some cases, delivery of technology will require commercial arrangements involving intellectual property for effective delivery.
- The CRC model establishes a formal basis for access by the industry to the intellectual property of the independent R&D organisations (Background IP) for the purposes of research and subsequent arrangements for commercialisation of the outputs.
- The current reliance of the industry on co-investment by non-industry agencies to conduct its research and development also necessitates a procedure to establish the industry's ownership stake in the outputs of R&D (knowledge and technology). From an industry perspective such a process not only establishes the degree of influence the industry may exert in determining the best use of those outputs let alone determine any distribution of revenue generated from commercialisation of the outcomes.
- The CRCV provides the industry with a process to establish equity in the outcomes of its inter-agency research (Centre IP) and to manage the application of the outputs for the benefit of all stakeholders.