

## **Developing a national research profile for horticulture**

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### **Institutional arrangements for horticulture**

The Commonwealth Government in August of last year set up three organisations in an attempt to assist in the further development of the horticultural industries. They are the Horticultural Policy Council (HPC), the Australian Horticultural Corporation (AHC) and the Horticultural Research & Development Corporation (HRDC).

By virtue of their diversity and geographic separation, the horticultural industries are fragmented and tend to function as separate commodity and/or regional groups. Such lack of cohesion plus a framework for collective action were seen as major impediments to further growth and the realisation of market opportunities.

The HPC, AHC and HRDC were set up as the means by which these inherent deficiencies could be corrected by providing a focus and organisational structure by which policy, marketing and research and development needs could be addressed and progressed on a national basis.

The justification for three separate bodies to cater for these needs has been frequently questioned. The answer lies in past experience with Commonwealth statutory marketing authorities, such as the former Australian Apple and Pear Corporation, which were being diverted from their prime function of marketing by becoming involved in policy matters on the one hand and the organisation and funding of research and development on the other. Consequently the decision was taken to assign each of the three areas of responsibility to separate organisations, as follows:

- HPC - to facilitate the development by the Commonwealth Government of sound, consistent and comprehensive policies in relation to Australian horticultural industries, through active, co-ordinated participation of those industries in the policy formulation process.
- AHC - to assist Australian horticultural industries to achieve their full potential in overseas markets and to foster their overall development. (Note that functions also include promotion of consumption and sale in Australia and overseas as well as the facilitation of marketing within Australia.
- HRDC - to improve the efficiency and competitiveness of Australian horticultural industries by identification and funding of priority areas of horticultural research and development; improving the efficiency and effectiveness of R&D by making more effective use of resources and skills; developing an awareness of the contribution made by R&D; and ensuring sound accountability for expenditure.

Participation with either AHC or HRDC is purely voluntary and a matter for decision by the particular industry concerned. Furthermore, affiliation with one of the Corporations is not dependent on affiliation with the other.

With respect to the HRDC the big incentive for industry involvement is Commonwealth matching grants for all industry funds spent on R&D up to a level of 0.5% of gross value of production (GVP). Participation may be in one of two ways, as determined by the industry concerned, namely by compulsory levies or voluntary contributions.

The question is how will these new arrangements impact upon research and development to achieve the stated prime objective of the Corporation "to improve the efficiency and competitiveness of the Australian horticultural industries".

## **Funding**

With introduction of the Rural Industries Research Act in 1985 and other corresponding legislation, such as the Horticultural Research & Development Act, 1987, there was the clear expectation that with additional industry funds and matching Commonwealth grants, the total resources available for rural R&D would increase. Certainly, this expectation has been realised but perhaps not to the extent that was originally hoped.

Indeed, with across the board budgetary constraints and continuing bipartisan pressures towards smaller government, it must be assumed that government funds, other than those provided through the rural industry research funds (RIRF's) will not be increased and in real terms will decline, at least for the foreseeable future.

It must be accepted that we are moving rapidly to a situation whereby meaningful R&D programs will not be mounted or maintained unless the beneficiaries of those programs, the producers, are prepared to contribute to their cost through the RIRF arrangements.

This is not to say that governments will not continue to be the major providers of resources for R&D for a long time to come. Indeed, Avent (1989) (1) made the point that in 1987/88, commercial sources provided about 2% of the total direct funding of rural research in public sector organisations, compared with some 9% from rural producers through RIRF levies and 89% from governments.

In round terms therefore, R&D councils/corporations currently allocate around 20% of rural research funding, a proportion which is likely to approach 35% within four to five years, by which time they will be receiving levy funding equal to 0.5% of the GVP for the commodity group, matched by Commonwealth grants (Ward, 1989) (2).

The important point is that because allocations by councils/corporations are highly discretionary, they exercise substantial leverage in influencing the disbursement of other resources, traditional and new, to rural research programs. It follows that no horticultural industry seeking to progress can afford to forsake the benefits offered by HRDC.

The fact that we are in a new ball game in respect to funding horticultural R&D is more widely acknowledged by the horticultural industries than is generally accepted. This is evidenced by the speed with which many took up the challenge to participate with HRDC. In less than 12 months since its inauguration four industries were participating on an ongoing basis, fresh apples and pears and citrus by way of compulsory levy, macadamias and mushrooms on a voluntary basis, while the nursery industry had put in place arrangements to come in by way of a statutory levy on sales of plastic pots from manufacturers.

Additionally, several other commodity groups notably potatoes, cut flowers and various other fruits and vegetables were participating by way of significant voluntary contributions. The total R&D budget for 1989-90 will exceed \$1.5m and could be well over \$5m within 2-3 years.

It is important that researchers recognise that funding of R&D has entered a new era and if they are to attract the resources required that they assist in articulating the ground rules to the industries they service.

## **Direction of funding**

The overall philosophy of HRDC is to support nationally co-ordinated programs in which the activities of individual R&D agencies throughout Australia complement each other in achieving specific objectives that offer the best investment prospects in terms of improving efficiency and competitiveness and in the realisation of maximum market potential. This applies irrespective of whether the opportunity or Problem to be researched has a national or regional base.

The two key elements of this philosophy are the identification and prioritisation of objectives and the national co-ordination of R&D programs.

## **Objectives**

The key to effective R&D programs is first the selection of objectives and then the development of strategies which address the totality of factors which impact upon the attainment of those objectives. This is not easy because:

- few horticultural industries have developed any sort of vision - there is simply no clear picture as to where they want to go; and
- pressures from both industry and R&D agencies to spread the allocation resources so that every regional component of a commodity sector and every agency is seen as direct beneficiaries - everyone wants a slice of the cake and this could well dissipate funds and prevent support for research related to key objectives.

It would be to the distinct advantage of individual horticultural industries to take on board the discipline of the SWOT strategic planning process - examine strengths, weaknesses, opportunities and threats, then develop a vision for the future. From this objectives, strategies and priorities would flow.

In achievement of objectives, it is not sufficient to limit our thinking to technical considerations - many other issues are often involved, such as adequacy of supply, marketing and politics.

For example, most commodity groups would see the development of exports as a key objective. However, the ability of the horticultural industries to capture new markets, particularly those overseas, has been limited by insufficient product of the desired quality to guarantee continuity of regular supplies. Most industries are primarily geared to supply the domestic market only and those which do have a significant export commitment are constrained in expanding overseas sales by limitations to their capacity to supply consistently products of the qualities and in the volumes required.

Lack of commitment to exports and the expansion of production for this purpose is understandable in view of uncertainties that exist as to the requirements of overseas markets both in a quantitative and qualitative sense. The point is that if export development is an objective, these marketing and supply issues need to be addressed, hand in hand with the resolution of technical problems if the benefits of R&D are to be realised.

The challenge before HRDC, hopefully not in isolation, is to foster acceptance of this total package philosophy and to direct funding to projects where there is clear evidence that other necessary action is being taken to ensure timely commercial adoption of the results.

## *Co-ordination*

By virtue of its legislation, HRDC is obliged to ensure "the efficiency and effectiveness of R&D by making more effective use of resources and skills". Apart from attempting better direction of those resources and skills as discussed previously, this obviously involves coordination and the avoidance of duplication.

I would be the last to suggest that there is not already a high level of co-ordination amongst researchers in Australia, achieved through government and industry sponsored conferences, workshops and seminars, as well as, through less formal liaison.

Be this as it may, HRDC will be strongly promoting the concept of a national approach towards R&D and will be seeking assurances that components of research programs are being shared between, rather than duplicated by relevant agencies. It will also be seeking to direct funds to agencies possessing the necessary skills and other resources for the project concerned.

By way of conclusion to the question of funding, it would be fatuous of me to suggest that HRDC has reached a point where funds are being directed to nationally co-ordinated programs aligned to well thought out industry objectives. Nonetheless this is the direction that will be pursued and already financial support has been provided for two workshops, one relating to two-spotted mite control and the other on citrus exports, with this in mind.

HRDC must rely heavily on expert advice from producers, processors and researchers and will be clearly influenced by their collective opinions in the direction of its funding. However, it cannot be expected to take all the running in getting the parties together. I would like to think that the needs of HRDC will provide the incentive for future industry/technical conferences and meetings to develop and articulate R&D objectives, strategies and priorities that reflect the views of both the commercial and research sectors. Evidence of prior consultation and planning will be undoubtedly to the advantage of project applicants.

Finally, I wish to briefly raise two issues upon which opinion is likely to be divided, but need to be addressed in revising the Corporation's Interim R&D Plan throughout the remainder of this year. They concern market research and extension and I would welcome any feedback that you and your industry colleagues might wish to provide.

### **Market research**

The Interim R&D Plan notes that "an effective R&D program aimed at increasing commercial returns to members of an industry should have a strong market orientation and give recognition to the various components of the marketing process including identification of market requirements as well as product development, post-harvest handling, production technology aimed at meeting existing and emerging demand, and quality control".

It also notes the prime role of the Australian Horticultural Corporation (AHC) to encourage and develop export marketing and the facilitation of marketing within Australia. In acceptance of this, the Interim R&D Plan of HRDC, does not make reference to market research as a part of its objectives, strategies or priorities. Therefore, as it stands, the requirement of the legislation that R&D Programs must be consistent with the R&D Plan, the possibility of HRDC funding market research is precluded.

With the approval of the Minister for Primary Industries & Energy this can be changed. It is an important issue that impacts upon the activities of AHC and would also affect the resources available to HRDC for production and post harvest research.

Any involvement in market research on the part of HRDC would be done in close collaboration with AHC. Nonetheless, it should be noted that the position of applicant industries for such funding could be quite different. Whether they were AHC & HRDC participants, AHC participants, only, or HRDC participants, only, could alter the approach taken in each case.

In raising this issue for discussion, and without wishing to pre-empt any decisions, I venture the opinion that because adequate market research could well be an essential prerequisite to effective R&D aimed at capturing new markets, HRDC should possess the flexibility to support market research, subject to overall industry priorities.

### **Extension**

The strategies of HRDC include the statement that "the Corporation will be mindful of the need for effective transfer of technology from researches to producers and will fund appropriate programs aimed at achieving this objective".

Historically, R&D councils/corporations have been more concerned with the generation of new technology than its transfer to the commercial sector. More recently, however, many have become more involved

with extension and the number of applications for funding such activities has mushroomed. Because of this and recognising differing attitudes of councils/corporations, it seems only fair to potential applicants that HRDC should articulate its position in somewhat more detail than currently contained in its Interim R&D Plan.

It is clearly the responsibility of HRDC to support proposals aimed at achieving significant commercial adoption of new technology. However, when it comes to application of established technology, in other words the routine transfer of information, this is another question in which over involvement could drastically deplete our resource base and alter the traditional funding responsibilities of relevant agencies, notably State Departments of Agriculture.

In leaving you these questions to ponder, I will conclude with the comment that in attempting to cater for the R&D needs for such a diverse array of often discrete and geographically separated industries, HRDC has been presented with a challenge more formidable than any other R&D Council or Corporation.

Furthermore, with the present policy push towards corporatisation of research councils, it could be that one or more could seek to come within the ambit of HRDC. This would have the advantage of spreading administrative costs and ensuring a high standard of professional executive support which most small councils cannot afford. However, with or without such amalgamations, HRDC must have in place mechanisms whereby close liaison is established and maintained with both industry and researchers. This could well involve establishment of formal sub-committees to cater for major commodity groups.

I hope from my remarks you have gained some empathy with our position and some appreciation of the broad directions which we intend to follow. This is important because without significant external input and feedback our mission will verge on the impossible.

## **References**

1. Avent K. L., Rural Research & Development in Australia: A Study on Commercialisation, Bureau of Rural Resources, Bulletin No. 2, 1989.
2. Ward L. E., Rural Research Councils Strategic Planning Guidelines, Report for Department of Primary Industries & Energy, 1989.