

of educated professionals is seen as being desirable for the industry as a whole. Furthermore it is contrary to trends in the U.S. and Europe.

I believe that the nursery industry will have to assess its attitude to the employment of professionally trained people as the level of service provided to it by government invariably declines and as nurseries themselves become more complex. *I am also confident that collaboration in training between employers, TAFE providers, and higher education institutions can provide the range of people that a dynamic industry needs, but such collaboration requires the active support and involvement of all the players.*

Competency-Based Training—Implications for Horticultural Education

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Competency-Based Training (CBT) can be defined as an approach to learning which places primary emphasis on what the learner can actually do in the workplace as a result of training. It is focused on the outcomes or competencies rather than on the learning processes or the time spent on these processes. This reflects a major shift away from the conventional approach to education and training.

MAYER REPORT

This report identified seven key competencies; collecting, analysing and organising information, communicating ideas and information, planning and organising activities, working with others and in teams, using mathematical ideas and techniques, solving problems, and using technology. In Australia a set of National Horticulture Competency Standards have been developed. They reflect the above key competencies and will be used as a basis for developing all new courses in vocational education and training.

WORKPLACE TRAINING

All levels of vocational education and training will involve workplace experience and employers/supervisors/managers will be encouraged to become qualified workplace trainers and assessors. There is an acceptance that training will involve both 'on' and 'off' the job training. This means that providers of training will need to develop a closer relationship with the horticultural industry and negotiate training strategies which reflect true industry needs. Module delivery rather than whole course delivery is likely to become more common.

ASSESSMENT

The statement has been made that the CBT system will be made or broken by the effectiveness of its assessment processes. Fairness and validity are important. In Australia, the National Centre for CBT is of the view that the assessment 'grades' ought to be simply Competent or Not Yet Competent. The philosophical questions such as "are you creating winners/losers or promoting mediocrity" by not issuing

percentile ranking grades may well be asked. But is it easy to identify who wants traditional grading?—teachers/students, industry or universities? Universities primarily select on academic merit, whereas the VET system will be based on competencies achieved.

An holistic approach to grading is the ideal : a system needs to be designed which can measure knowledge, skills, and attitudes. The future will be challenging but the rewards will be greater skills achievements, productivity, and therefore opportunities for the Australian horticultural workforce.

LITERATURE CITED

Mayer, E. 1992. Putting general education to work. The key competencies report. The Australian Education Council and Ministers for Vocational Education, Employment and Training 1992.

Training Programs for the Horticulture Industry - from Research to Practice

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The Institute for Horticultural Development (IHD) is one of Australia's major research and development institutes supporting the horticultural industry and its allied trades. A critical part of the Institute's core business is to provide training to assist producers, processors, and product and produce managers to develop the skills and knowledge needed to adopt world competitive practices.

Continuing industry-based research and development programs within and outside the Institute provide information and technology that is at the forefront of international science. However, the information derived from current and past research is not often in a form in which can easily be adopted and integrated by industry personnel into the management practices of their workplace. A further complication is that the horticulture industry is comprised of a number of diverse sectors producing a multitude of different commodities, on farms of different types, and processing and marketing them through a wide range of different enterprises, e.g. the growing, handling, and marketing of hydroponic tomatoes is very different to that of wine grapes, apples, Asian vegetables, cut flowers, or nursery plants.

The ability of such a heterogenous industry to respond to changing consumer demands and new market opportunities is reliant not only on the provision of information and new technology, but its adoption by all industry personnel involved in any aspect of the production, handling, or marketing chain. Training courses designed to be of real value to the horticultural industry need to be carefully adapted and tailored to suit the special needs and priorities of each component activity of the various sectors.

IHD is registered with the State Training Board under the category of Industry Based Private Provider. Courses are carefully designed in response to needs outlined by industry personnel. They are delivered by "trainer-researchers" who