

TOWARDS A POLICY FOR A CAREER STRUCTURE IN ORNAMENTAL HORTICULTURE

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After less than one month's residence in a new continent, I am very conscious of being at the stage when one should keep one's eyes and ears open but one's mouth shut. My invitation to spend 6 months at the Queensland Agricultural College came through the initiative and with the assistance of the Queensland Nurserymen's Association. It was brought about by the concern of professional horticulturists who felt the absence of educational and training opportunities in ornamental and amenity horticulture; that neither the industry nor the profession were getting enough people of the calibre they needed which, in turn, was affecting the whole status of the horticulturist. In other words, they were missing out on the excellent facilities which exist in technical and technological education which appeared to be available to every other section of the environmental disciplines except ornamental horticulture.

When Professor Oliver Batcheller from California Polytechnic University came to Australia on sabbatical leave in 1970/71 he "was shocked to learn there is not a single Chair of Horticulture or a department of horticulture in any 4-year degree granting institution in the entire country of Australia." That state of affairs has, at least, improved with the establishment of the Chair at Sydney University in 1971. The situation as expressed by Batcheller's further comment, "the field of ornamental horticulture is practically unheard of as are college or university programs in park administration," is just beginning to change.

An interesting and, probably very relevant question to ask is why Australia, alone of all the highly developed countries, has missed out in this way and why it holds horticulture in such low academic esteem. Why, for example, New Zealand should be able to sustain degrees in Horticulture in two universities and have approximately 600 horticultural students throughout the country. It is worth noting that even countries like Norway or Switzerland, which hardly conjure up a picture of horticulture in one's mind, can each offer greater educational facilities for the young horticulturist than can Australia.

There is not, however, time here to surmise on history. With so little time available I must assume that the position is accepted and that there is a genuine desire to put the matter right. If this is the case then the problem becomes one of designing, in close association with the professional and trade organisations, the type of

course which will command the respect of the academic, interest and motivate the student, and satisfy the needs of the industries and professions who will employ the end product.

I must make it clear at this juncture that my remarks do not refer specifically to any recommendations for the Queensland Agricultural College. I am expressing a general philosophy backed up by experience and observations in several countries and I cannot see why they should not be applicable here.

Academics, by themselves, are really only qualified to propagate their own species. The more fundamental scientist and research worker will normally seek their training by an Hons. Degree route in the basic sciences; some of these will, we hope, eventually be attracted into horticultural research at the post-graduate stage. To produce the graduate for industry, the technologist, the professional parks and recreational manager, the landscapist — all such training requires a close fertilisation with the industry or profession, and an exposure to each during the course. Obviously the lower down the academic scale one goes, from graduate to craftsman training, the more sustained the need for this exposure becomes; but it is essential at the technological degree level, too. Industry has a right to expect that the graduates have been trained realistically and prepared for the responsibility of managing people as well as having been filled with technological data. Students have a right to see ahead where they are going, and must feel that all their course is relevant to their chosen subject.

Have you ever really thought why the International Plant Propagators' Society has been such a success and has spread so rapidly when introduced into new areas - and why its meetings are so stimulating and rewarding? There are many contributory reasons no doubt but, fundamentally, I am convinced it is a question of status. It is an organisation in which the academic and the researcher on the one hand, and the grower and the skilled craftsman on the other, meet on equal terms; each respect each other's knowledge and skill. They meet on the common ground of horticulture, albeit on a relatively small section of it.

That is what horticulture is all about - and that is what makes the conventionally minded academics suspicious of us. "It is not," they claim, "a subject in its own right." "It can be taught effectively," they claim, "as a specialist elective in an agricultural course." "What is the difference," they ask, "in one crop from another — cereals or fruit or vegetable or flowers?"

It is certainly more economical — and more prestigious for the agricultural sciences — to have them all lumped together. There is only one snag — it does not succeed. Let them look around and see that it does not work. Look at the United Kingdom where 3 univer-

sities have struggled to maintain a handful of horticultural courses, two now petering out into insignificance with their elective courses. A fourth University (Bath) came along with a technological degree in horticulture and within the first few years outstripped the other three combined in its student intake. A new degree course in Horticulture has just made a successful start in Scotland at the University of Strathclyde, devoid of agricultural dominance but using the horticultural facilities at the West of Scotland Agricultural College.

At the technological layer of the Higher National Diploma (which is now a sub-graduate course but designed to equate roughly with pass degree standard) no attempt is made to combine any aspect of agriculture and horticulture in the U.K.

Look at any institution in the English speaking world where horticultural education is really successful — both in numbers of students they attract and the quality of the product they turn out — and you will find a strong Department of Horticulture or a separate horticultural entity within a School of Biological Sciences. You will not find horticulture as an agricultural elective.

Why not? Basically because horticulturists, especially those in the ornamental field, are a different kind of people and their motivation is different. Dr. John Carew of Michigan State University defines horticulture as “plant science with a human goal.” Courses are for people, about people. You have to attract them as students in the first place — and fit them for employment at the end. In particular, there is a higher degree of “plantsmanship” required than in basic agriculture, a deeper understanding of the plant — usually as individuals rather than as crops. If you wait for the nursery-oriented student to develop as a “spin off” from the general agricultural approach you will miss the majority of potential recruits.

May I now concentrate on a few general points.

(1) Improve the public image of the horticulturist, particularly of the nurseryman. You know the developments which have transformed the industry in the last decade, but the public does not, neither do parents or school leavers. Begin with the schools — invite them to the nursery; show them that there is a career in the subject. Let your fascination for propagating plants rub off on them. In this matter of the public image I must commend the whole concept of the Australian Institute of Horticulture. They are fighting a battle for status and they merit the wholehearted support of every horticulturist.

(2) Take steps to train any young person you have in your employment — irrespective of whether he is attending classes. Don't expect them to pick up the skills as they go along. For example, there is no more skilled job than the effective watering of plants — it is not an innate skill. Even the graduate with all his knowledge of soil moisture relationships still has to acquire the skills of application.

Nor is the skill or importance any less because the method of application is mechanised. It still remains basically a question of human judgment. In this, as in all other basic operations, time spent in showing a novice how to acquire such judgment is well repaid not only by getting a better worker but also by helping to find out more quickly his true potential.

(3) There must be courses of education and training for all intellectual capacities. Horticulture needs research workers, teachers, graduate managers, technologists and technicians. The "craftsman" of today is a technician. Propagators now know that the environment into which they place their cuttings is normally much more important than the actual craft of making them. The skill is still there and demands a much wider understanding. The industry needs effective "Indians" as well as good "Chiefs." Thankfully one does not see here the idea, somewhat prevalent in the U.S.A., that all sub-graduate courses are for the educational "throw outs," with the inevitable trend that the standard of college courses are continually lowered to pass more and to reduce the number of psychiatric cases which apparently develop from the "failures."

(4) The industry must be involved in the educational and training process. Not only in the planning and formative stages but, throughout, in membership of advisory committees and by maintaining a close and meaningful link with the staff. They can more readily gain confidence in teaching their subject through personal contact and observation than they can from theory.

The most developed form of co-operation between college and industry is the fully fledged sandwich course in which periods of industrial employment are integrated into periods of college attendance¹. This provides the best preparation for the entry of a young person into a technological or highly technical job. It undoubtedly provides the best product for industry to employ. It also provides the College with a much more mature student and the final semester is usually a stimulating and challenging one for staff and student.

(5) Finally I would stress that horticulture must be taught on the basis that it is a business as well as a science, a technology and, indeed, an art. Appropriate levels of business study and management should be in all courses — including amenity courses. The word "management" is used too loosely these days in the educational context and the needs at each level must be more precisely defined. The need to handle people and to get the best out of them

¹This system of training in horticulture is described in "The Sandwich Program" by the author in Vol. 24 I.P.P.S. Combined Proceedings (1974).

is a factor shared by the executive and the nursery leading hand. Basic man management training has proved a most successful introduction by the Agricultural Training Board for the mature worker in the U.K. This subject, which is about human relations and communications, is a "must" in all our basic courses.

DISCUSSION

A MEMBER: It is time for I.P.P.S. and the nursery industry to update the image of the horticulture industries by a concerted public relations effort. We should recommend to the I.P.P.S. Executive Committee that it embark on a public relations effort through newspapers, radio, TV, etc.

RICHARD MARTYR: I agree. Increasing the membership of I.P.P.S. is also an important way of improving public awareness of horticulture and more effort should be put into attracting young members.

ROB DAVIDSON: The Horticultural Advisory Committee of the Queensland Agricultural College has circulated the horticultural and related industries throughout Australia for a Horticulture Promotion Fund. Subscriptions have been received from all States and a 12-page, illustrated brochure entitled, "Horticulture — a New Approach" has been prepared for distribution, particularly to schools and careers officers. Copies are available from the College or from Box 19, Brisbane Market P.O., Qld. 4106. It is hoped that this will help to attract students into horticulture but, above all, it is designed to tell the rest of society what horticulture is all about.