

JEREMY WELLS: Two or three years ago I looked over our records and found that we were spending between \$10,000 and \$11,000 for labor to pull weeds and still had a lot. We had used Casoron on containers but we were afraid to apply it in March when they would be under poly so we went to Dacthal. It does not give us complete control, but one man can go out and pull the weeds which are missed from 10,000 cans in 4 hours. This is a considerable saving over what we were doing. We used the 5% granular material at a rate of 4 lb / A every 30 days.

MIKE JOHNSON: We are going to have to cut off questions at this point. Any further questions can be put into the Question Box.

At this time, we are going to have papers by Bruce Briggs and Dr. Wott concerning how to attract young people to horticulture. Bruce will discuss this from a nurseryman's view and Dr. Wott will discuss it from a University view; we will begin with Bruce Briggs.

ATTRACTING YOUNG PEOPLE TO HORTICULTURE — FROM A NURSERYMAN'S VIEW

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As a nurseryman, I am interested in attracting young people to horticulture for more than one reason. First, as potential customers, as citizens who are sympathetic to our industry's goals, and as citizens who are concerned about creating a better life in a better world. Then, I would also like to interest more young people in continuing further research in horticulture and in becoming an active part of some segment of the industry.

As members of the I.P.P.S., we can go back to our motto "To seek and to share". We can start by seeking more knowledge, better techniques, additional applications and new fields of endeavor. We can share this knowledge, the materials with which we work, and our own enthusiasm for horticulture. We can use the current interest in ecology to advantage and share our knowledge with those from other fields who have just recently jumped on the ecology bandwagon. By serving on planning boards for parks, cemeteries, highways and cities, we can help create beautiful surroundings in our communities. We can bring our children into an environment made more pleasant and interesting by the presence of trees, shrubs and flowers. We can, in a sense "condition" them to want and to expect these beautiful surroundings wherever they may go.

Then start working with youngsters at the earliest possible age, — at home and in pre-school, kindergarten and grade school classes. Share with them the thrill of seeing a seed sprout, of seeing a flower turning into a seed pod, or of seeing a bulb coming to life and flowering. Have plants and flowers inside and outside the home. Give green and growing gifts. Promote the use of plants in schools, stores, restaurants and public buildings. Offer school and other youth organizations field trips to nurseries, greenhouses, arboretums and parks. Furnish them the raw materials and the know-how for small projects. Stir their imaginations with something new and exotic and motivate them to seek out more information. Share with them your enthusiasm and pride in your industry.

Schools are traditionally short of funds and supplies. We can help bridge this gap by working on advisory boards in planning the science facilities. Often schools do not include horticultural programs because they think in terms of elaborate and costly greenhouses beyond their means. We can work toward getting good basic laboratory areas which are adaptable to more than one science subject. Then we can show them how to get the students involved in building their own poly houses, propagating benches, heating and cooling systems, etc. We can contribute without too much cost some plant materials: soil, pots and the use of small equipment. We can use our know-how to help them structure workable projects. We can help set up plantings in the available areas which can be used as small arboreta or areas from which to collect specimens for the botany classes. We can provide help with the landscaping when it must be done on a small budget. We can help “build-in” horticulture as a part of everyday life in other than science classes, such as in health, home economics, psychology and sociology, art and interior decoration.

In our local junior high school, we have a vocational career week in which students may choose a field of interest and actually work several days in the operation. Students who have come to us through this program usually have had very little horticultural background but invariably develop enough interest to request part time jobs after school and during vacations. Even slow learners may find that special interest which may motivate them with an effort which, in time, will reward them with a productive place in society.

For two summers, we have worked with a special group of slow learners from our local high school. With the cooperation of the school system and the federal government, and the excellent direction of two very understanding teachers, 14 students spent 8 weeks working at our nursery for 6 hours each day. We had practically no discipline problems and the honest effort put forth by these children was an inspiration to our more gifted workers. Some

of the students were able to work under our supervisors and some functioned well only under their own teachers. These teachers analyzed the various jobs, wrote specifications, then measured achievement in speed and quality against the norm of our regular workers (1). Since then, we have employed several of these students on a part time basis and others have moved on to successful employment in other fields.

In the high school, the vocational agriculture teacher is usually very receptive to help and is often also the sponsor of the Future Farmers of America group. A Vo-Ag teacher in our state arranged a regional horticultural contest which has become an annual affair. Our chapter of the Washington State Nurserymen's Association has helped put on this contest by furnishing plant materials for the plant identification test, by helping write the test questions, and by having several nurserymen present on a Saturday to conduct the contest. Ribbons for the winners created enough incentive for quite a keen competition among the participating high schools.

The increased emphasis on horticulture in the lower grades of recent years has naturally resulted in more students looking for additional courses to pursue on the junior college and vocational school levels. The Vocational Education Act of 1963 set up federal funds which could be used to help set up vocational programs of ornamental horticulture. In 1964 and 1965 the American Association of Nurserymen sponsored a study to foster greater industry-university cooperation with the goal of improving the image of the nursery industry and of upgrading the industry itself. The project was titled Project BIG to implement Better profits, Improved image, and Greater personal satisfaction. A number of A.A.N. and I.P.S. members participated in this project, with Tom Pinney as chairman.

By the way, for those of you who may not be familiar with the work of the A.A.N., we recommend it as a source of information on almost every aspect of the horticultural trades (2). They have published promotional hand-outs in cartoon form and color books for the younger set, career pamphlets for the students, courses of study for the teachers, and studies of operational problems for the tradesmen. They have actively promoted horticulture to the public through such projects as Youth Gardens and "Green Survival".

A major problem in setting up additional horticultural programs in high school and junior college has been the lack of teachers with adequate horticultural knowledge. In our state, the W.S.N.A. cooperated with the state Coordinating Council for Occupational Education in conducting a survey to determine the needs (3). A number of meetings in Washington and Oregon were held to help re-train some of the agriculture teachers from the traditional general farming practices to more specific information on horticultural

crops. Nurserymen helped in the training at special night and summer vacation sessions. With the limited trained teachers available, it became expedient to work toward creating a few well distributed programs with some depth, rather than attempting to put a smattering of horticulture in every community college.

In the upper levels, part time and summer work programs can provide an interesting exposure to horticulture for the student and provide seasonal help for the nurseryman. With the high school and junior college students, we try to break up a day of routine work such as weeding, with something more interesting. We find that boys of this age group usually prefers heavy lifting type work or using equipment, while the girls usually do better with the small and detailed work around the greenhouses. We ask them to do a good day's work, but try to give them an attainable goal and something more challenging to think about.

We have had summer programs for college students for several years. This can result in college credit with the cooperation of the schools. In summarizing our experiences with students at this level, we would advise: 1) have a minimum of three students, all from different schools; 2) give them as wide a variety of work experience as possible; 3) require them to work to achieve on a level with your regular personnel; 4) conduct frequent question and answer sessions; 5) take them to as many open houses, field days, and nursery meetings as possible; 6) help them meet and have an opportunity to talk with people from all segments of the horticultural field.

You people teaching and writing in the universities, and you businessmen conducting successful enterprises, perhaps do not realize how much it means to these people to have the opportunity to meet you and to talk over their problems and their aspirations. Meeting a professor, such as Dr. Hartmann, can put new meaning into his fine book on propagation. Having a discussion with a professor such as Dr. Tukey can help bring fragmented ideas into sharper focus, and meeting an industry leader such as George Oki can help students better define their goals.

Yes, I do believe that we can best accomplish our goal of attracting more young people to horticulture by following our own motto "To seek and to share". For in seeking, we can open new fields and opportunities for these students to pursue, and in sharing, we can pass on to them the knowledge and technology of our generation and create an enthusiasm and vision to carry them on beyond our present day accomplishments.

LITERATURE CITED

1. Freshley, Lawrence. 1971, Title VI ESEA Evaluation Report.

Olympia School District No. 111. (Olympia High School, 1302 North St., Olympia, Washington 98501)

2. American Association of Nurserymen, Inc., 835 Southern Building, Washington, D. C. 20005.
3. Nelson, Art. Program Supervisor of Agricultural Education, Coordinating Council for Occupational Education, Old Capitol Building, Olympia, Washington 98504.

ATTRACTING YOUNG PEOPLE TO HORTICULTURE — FROM A UNIVERSITY VIEW

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What is horticulture? Bailey describes "horticulture" first of all, as "the cultivation of a garden or orchard"; then secondly "the act of growing fruits, vegetables, and ornamental plants". Thus literally, horticulture means "garden culture". How do we interest young people in "garden culture"?

HISTORY

Historically, the region of Mesopotamia was one of the cradles of horticulture. The valley of the Euphrates became the land of palms, dates, figs and, in short, "The Garden of Eden". Tree worship or dendrolatry grew up here because the palm meant so much in the lives of the people for food, fuel, shelter, textiles, drink, etc.

Archeological records from Assyria show symbolic religious use of pollen and pollination methods; in short one of the phases of the Chaldean culture. The Chaldeans were followed by the Assyrians and Babylonians who extended their civilization into Egypt. The Babylonians cultured the beet, lettuce and radish. Wheat and dates were agricultural staples and rent for land planted with dates was worth five to seven times land in wheat.

The Phoenicians were important in establishing contact with the rest of the world, even to England. This trade was valuable as a means for the dissemination of seeds, plants, and horticultural products.

In 6000 B.C., Crete was inhabited by cave dwellers who had no form of agriculture except cattle raising. But about 3500 B.C. trade