

grafting and budding. Naturally, in budding and grafting, only our more experienced employees skilled in these jobs perform the work. In these areas our propagators are provided with helpers and tyers from the more promising of the new employees. Thus through each operation the newer people are learning and acquiring new skills and, of course, earning more as they learn more. So the cycle ends and is ready to begin all over again.

To sum it all up: In-service training is very necessary and never-ending, be it a formal classroom and laboratory type or direct demonstration and application. The program must be positive so that the employee knows where he stands and can take satisfaction in the knowledge that through improving his skills his paycheck will also increase. The boss should also be happy because an efficient and productive employee is the greatest asset any company can ever have.

TOK FURUTA: Thank you, Dan. We should like to continue our "In-Service Training" panel; the next speaker needs no introduction to you, so all I'm going to say is — here is "Jolly".

TRAINING WORKERS

O. A. BATCHELLER
California Polytechnic College
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"Nothing succeeds like success," and no one really learns to work at his top level until he has the responsibility and the rewards of his efforts.

It is difficult in a classroom or college situation to bring all of the factors of a commercial concern into bearing, for the time we have the students is only a part of their total commitment and they cannot live their entire time in the stress and strain of an economic situation.

We have found several different ways by which we can supplement the student's scientific training, and we feel we have succeeded to a large degree.

First and most important is that the material we present in the courses is of a practical and applied nature, presented by instructors who have had wide and successful experience in the field.

Second, and perhaps equally important, is that field trips are arranged to places of business which are engaged in the type of work we are studying. In this manner we can show the student the extent of the enterprise. It is also an opportunity to show the detailed planning and scheduling of all activities so as to make maximum use of the facilities and to return the greatest profit. Here the student can see and appreciate many things, such as the increased turnover by quicker rooting, the greater saleability by careful care and proper culture,

and the total savings as the result of a trivial saving on an individual plant.

Our hosts for our field trips have been most generous with their time and effort, and the impact of their words is far greater than ours, though most of the time we are giving the same message.

A third method and, in my opinion, of greater value than those already mentioned, is to have the students employed in a part-time position with the industry while they are enrolled at the College. Our records show that over 50% of our students are working their way through school, and I am happy to report a great many of them are employed in the horticultural field. We find such students working in the field not only get a great deal more from their course work, but add greatly to the discussions. The astuteness of their comments and judgments is most surprising and it is not surprising that their fellow students respect them and listen.

A fourth method is the Foundation Project System we have available at the College. In this system a student outlines his intended growing project with (1) an estimate of what he plans to do; (2) an estimate of the cost of the plants and materials plus a schedule of operations and activities; and (3) where, how, and how much he expects to make from the operation. This is carefully studied by the instructor in charge of the particular project. If necessary, or if we feel it desirable, the entire staff will meet with the student and have him defend his plan. Once the plan is approved and signed, he makes the necessary requisitions which are countersigned by the advisor, and the materials are paid for by the College Foundation. The student is required to keep a record of all activities and costs in a project notebook, and the advisor keeps close watch over the activities. As the crop comes into production, it is sold and the money is deposited to the student's Foundation account. Some material is sold to students and staff at the Ornamental Horticultural Unit, but most is sold directly to nurseries which have been contacted. Often it is the boy's parents who are engaged in the nursery business.

During the project a student learns many things—propagation and growing procedures, scheduling, bookkeeping, and — as his profit or cash in hand is the difference between cost of operations and sales — the student gets a real good practical course in economics. Not all projects make a profit, and if a student fails to take care of his project properly, it is taken away from him and managed by the Ornamental Horticulture Department.

I should mention the Foundation which finances the projects is reimbursed for all expenses and shares $\frac{1}{3}$ of the profit. We feel this is sufficient compensation for use of facilities and utilities and makes the operation a little more realistic.

A fifth method, though similar to the second, is the em-

ployment possibilities within the campus Grounds Department. This is under the direction of the Ornamental Horticulture Department, as we act as advisors with regard to the planning and planting. We feel that the student's knowledge is enriched by his work experience on the grounds for which he receives pay.

A sixth and important aspect is the speakers who are brought to the campus as guest lecturers. Often these are former students who are now established in business. Because of their former student status we feel they are most effective in directing the student's attention to the various phases of the industry.

I would be most remiss if I did not close by indicating the importance of our teaching staff. At Cal Poly we are, of course, concerned with a proper educational background for our instructors, but of equal importance is his interest, knowledge and experience in industry in the area in which he is teaching. All of our staff have been successful in industry and are now not only teaching in the subject area of their academic training but also in the areas which they have successfully handled in industry.

It would be naive to believe that formal education at the College will fit all men for all jobs. We realize that every firm has its own "modus operandi" and because of this feel that an orientation or "in-service training" should be carried on continually. By this procedure communications in both directions is usually improved. This generally results in better understanding, greater efficiency of operation, and a generally improved morale factor.

TOK FURUTA: Thank you, Jolly. We have one more panel member now. Mr. Ed Gardner of Stribling's Nurseries will give us his views of "In-Service Training", Ed:

IN-SERVICE TRAINING

ED GARDNER

*Stribling's Nurseries
Merced, California*

Have you ever heard the expression, "Get out of my way. I can do it in less time and a lot cheaper than by standing here, watching you fumble around." Does this sound familiar to you? Maybe not, but a good many of us have heard a variation of this at one time or another in our lives, especially in the formative years in our work.

This somewhat exaggerates a very real problem that we have when training personnel for our nursery operation. Few nursery operations are organized and fully staffed in all departments so that a new employee merely has to imitate the man who is directly in charge of him. If your situation is typical of our operation you may find yourself with a new em-