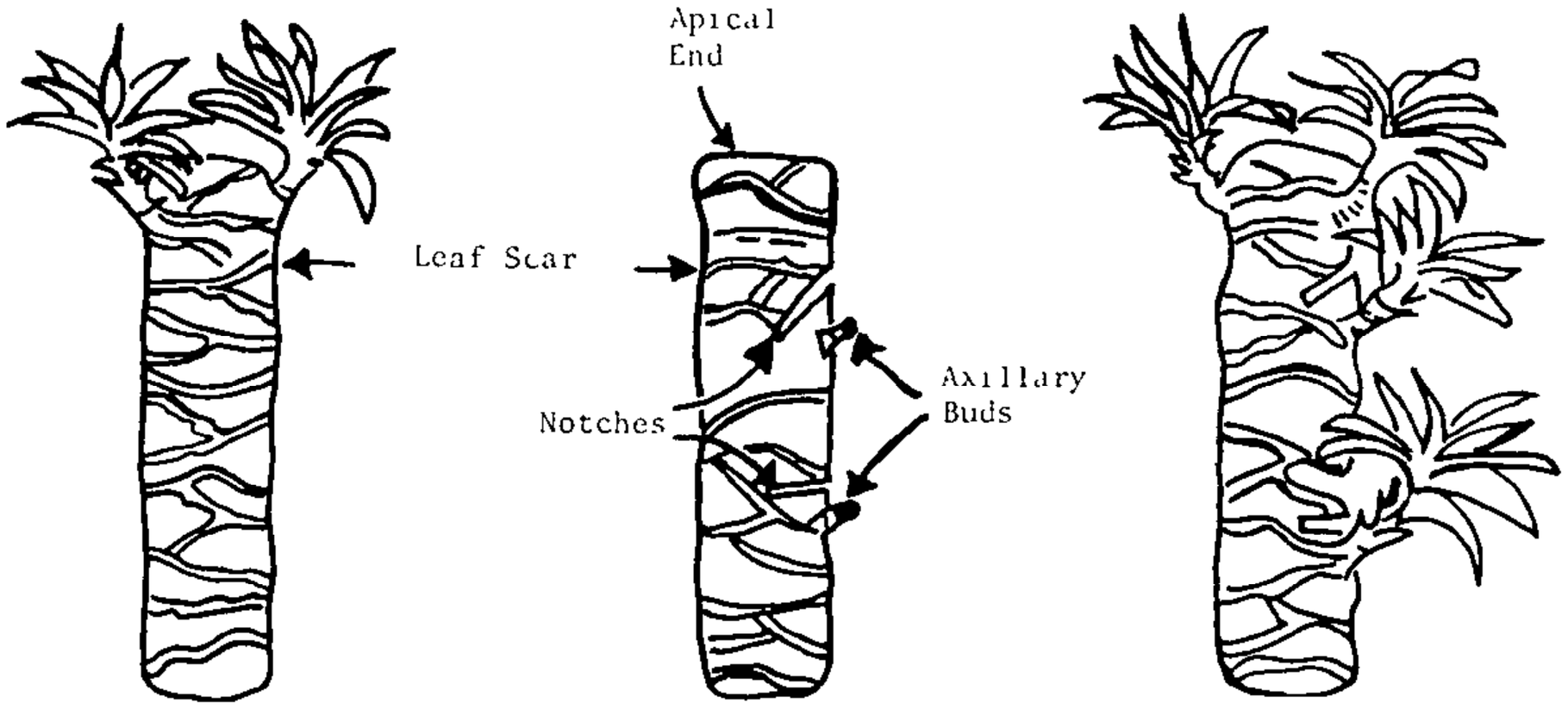

Figure 1. Technique for promoting lateral bud development in dracaeana canes *Left* Typical unnotched cane *Center*: Cane following notching *Right* Notched cane producing lateral buds.

It is sometimes observed that a bud will begin to develop near the apex and then stop dêveloping and end up as a stub. This is probably due to hormone production in buds that are more advanced, or more apical (further up on the cane). We have found that a deep cut above such a bud will result in full development. Currently, our work has been done with cuts ⅓ to ½ of the way through the cane. We are experimenting with the minimum depth of cut to assure bud development.

These research efforts are only in their beginning stages. We are very excited about the possibility of making a very good plant even better. We are currently working with *Dracaena marginata* and *Dracaena deremensis* 'Warneckii', and results to date are very promising.

JAPANESE STYLE WORK GROUPS AT CYPRESS CREEK NURSERY, INC.

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After a study of Japanese style management groups by Leiser Colburn, it was decided by the management team[1] at Cypress Creek Nursery to set up a trial program in one department of the nursery to see if such methods would prove beneficial in the company. The propagation department was selected for two reasons:

[1] Management team: Bill Colburn, Bill Mincey, Doug Ryan, June Sunday

1. Under Cypress Creek Nursery management structure, the department functioned virtually alone. It was headed by a foreman who was a working member of the 10-member group. Its productivity could be objectively measured and was not dependent upon the performance of any other group within the nursery.

2. The cost of production in the department was at an unacceptable high level, and long-term production schedules for finished liners had never been met. Conventional management techniques were not improving performance. It was the opinion of the management team that the situation in the department could not get any worse. The Quality Circle concept was to be implemented as a measure of last resort prior to radically restructuring the department.

The plan was that beginning August 24, 1981, one half-hour each week would be set aside for an unsupervised employee group meeting at which time members of the group would be expected to identify and solve problems contributing to their unacceptable production record. Lieser Colburn, who was not a member of the CCN management structure, would meet with the group to help them develop communication skills and encourage them to think creatively about the work they were doing. She was to be the liaison between the group and management, providing for the group the statistical data necessary for them to evaluate their own performance and securing the support of management for the improvements suggested by the group. The group was to be given as much information as it could assimilate concerning its own job; how that job related to and influenced other departments within the company; and how the company related to the nursery industry. In addition, educational programs were to be scheduled to increase group understanding of basic horticultural practices.

Within a short time management was able to detect improvement in the performance of the group. Some of the improvement, such as increased morale and greater cooperation with other departments, could not be evaluated statistically but was to prove extremely beneficial to the company. For instance, in our company, inventory figures begin with the weekly count turned in by each member of the propagation department, who is then paid a piece-work rate.

We were obtaining an accurate count numerically, but there was extreme carelessness in reporting species and cultivars. A session was scheduled with the office manager who explained the inner workings of her department to the group and stressed that accuracy for them depended upon the cor-

rectness of the propagation department reports. The group, with new understanding of the importance of its work, responded by exercising greater care in reporting what it had previously perceived as useless information.

By January, 1982, management was able to report to the group that the September through December production had increased by 233,033 units over the same 4-month period the previous year. In addition, a higher percentage of the cuttings taken had rooted, the quality of the liners had improved, and there were fewer weeds in the propagation areas.

The group had correctly identified and dealt with the problems that were impeding efficiency. The changes they had made in their procedures were as simple as assuming responsibility for ordering supplies before they ran out and cooperating within the department on the use of carts and other equipment. A team spirit had developed as the group became more aware of overall goals, while at the same time, individual efficiency had increased.

As production schedules were met, the group used slack times to visit other nurseries and observe their propagation techniques. This produced lively discussions of the strengths and weaknesses of our program and seemed to heighten the group's awareness of their position in the company and the industry.

We feel the program was very beneficial and have implemented it to a more limited degree in other areas of the nursery.

IMPROVED TECHNIQUES USED IN PRODUCING BUDDED CITRUS NURSERY TREES FOR COMMERCIAL FRUIT PRODUCTION

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Since the introduction of citrus fruit to the Western world by Spanish explorers, citrus trees have been produced by squeezing out the seeds and planting them in the ground. The trees grew slowly and were usually 10 to 20 years old before reaching a fruitful maturity.

In the late 19th century grafting and budding techniques began to be used by some growers to reproduce quantities of desirable fruit types. Other advantages soon became apparent as growers now had the abilities to improve cold hardiness,