STOCK PACKING: INCENTIVE PAY PROGRAM

AT NEW KENT NURSERY

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Our determination to continue shipping only quality, graded seedlings, coupled with a deminishing labor supply and increasing daily production demands, creates problems.

For a number of years we have realized that our grading production per hour was deminishing each year. In 1967, we began to run time studies and to seriously ponder the problem. My purpose here is to outline what we have done to at least reduce this problem.

Since one thing leads to another--nothing remains constant—I'm going to have to "go around the woods to get to the tree." In 1966 we designed what we call a seedling wrapper to be used in the field to transport seedlings to the grading building. This improvement over wash tubs or crates required the use of a tractor drawn jig to hold the canvas wrapper. We then designed and built a self-powered "lifting buggy" (so called for the lack of a better name). This cut our lifting time in the field by about one-third; hence from the field, one-third more seedlings per day. It was then (1967) that we ran our first time studies on piece work. By this time we had arrived at a good method of handling seedlings to the grading rooms and were looking seedling harvesters in the face. We now had an ungraded bundle that appeared, on the average, to be uniform enough to be accepted as a standard size for one unit.

At the time we ran our first time studies, the laborers were being paid on a per hour basis and did not know we were running the study. We found the following:

Grader rate	Number bundles per 8 hours
fast	11 - 12
medium fast	9 - 10
fair	7 - 8
slow	5 - 7
poor	4 - 6

Each bundle averaged about 2,000 seedlings.

This slide shows the daily production from February 12 to March 8, 1969. Note that even on our better days we were processing only 680,000 seedlings with some 41 people, or something over 16,000 per person, for a cost of $0.80 per thousand. The average cost of grading in 1969, based on 12 million, was $0.76 per thousand for labor. We have never been shaken about the cost, even under these conditions; but what we wanted was more seedlings through the plant because on poor days, or when the seedlings required more time, production would drop to 10,000 to 11,000 per grader.

We tried a number of different ideas--one was no grading. We would simply lift the seedlings on bed inventory and clay dip and pack. We tried this several ways. These were pilot studies and not properly set up, but we found that we could not handle large numbers of seedlings, bulk, any cheaper than running them over the grading tables. Remember, however, that most of our work is done by women, including all the packing. Only four men work in the grading building; therefore, we found that we did not have the man power to do the hard work of handling bulk seedlings. The few men we did have were needed on other work that a woman could not do. Also, we paid the men more, which effected the cost, so we couldn't see how we could handle a million seedlings per day bulk any cheaper than grading over the tables. We did get down to a total labor cost of 50.96 (including packing) as compared to $0.93 when using grading and women labor; but we could not produce enough volume. In fact, we found that our lowest cost when handling bulk seedlings was to use the grading crew to arrange and tie the seedlings into bundles that could be handled quickly by the packers. In any event, to handle bulk ungraded seedlings would require extensive changes in our packing arrangement and we had no desire to go to ungraded as an operational thing. We did, however, process some 3 million this way but the feedback from the planters was not good.

I know the details of this slide are too great for you to absorb at a quick glance, but it does explain how much per hour a girl will be paid for the number of bundles she doeso Each week, or pay

period, we know how many seedlings were packed and we can then divide this figure by the total number of bundles completed by all graders. This gives us an average number of seedlings per bundle. The pay is based on a 2,000 bundle. At the bottom of the slide you can see the adjustment in pay that we make each week to allow for deviation from the normal of 2,000. If the average per bundle is only 1,500, the hourly rate for any girl's bundle count is reduced by 25 percent; for a normal 2,000 bundle, there is no change; and if the average per bundle should be as much as 2,600, the hourly rate is increased by 30 percent.

This shows the method of bundle talley for each grader and the number of hours worked each day. It doesn't matter how many hours a person works, the pay will be based on how many bundles she processes. Note that one girl, who certainly graded less than the average, did make 51.80 per hour. If you do a little arithmatic, you will readily see that even though the hourly rate may be as much as 52.00, our cost per thousand goes down as the pay goes up because of the increased production. Actually, if a girl grades 30,000 (15 bundles) and we pay her 52.00 per hour, our cost is 0.54 per thousand. On the other hand, if a girl grades 16,000 (8 bundles) at S1.60 per hour, our cost is 50.84 per thousand. Therefore, a girl must do 9 or 10 bundles per day or it does not pay us to have her working. As a result, we dropped all the girls who could not average 10 bundles per day.

Slide 4 was a detailed daily production sheet. This is filled in by each foreman for his area of responsibility. The narration with the slide explained that New Kent Nursery was able to almost double their daily production. The incentive pay also increased the availability of women applicants who were attracted by the extra pay, if she produced.

One big problem is proper supervision. Everything must be coordinated, seedlings must be available promptly for the girls must have a steady flow to make money. Packing and shipping must move along on the other end or you can be in a hopeless mess pretty fast. Proper quality control must also be maintained and the crew must be assured that their record is being kept in good order.

We think this method is excellent. It works the administrative and supervisory staff very hard, but the satisfaction of a job well done makes it worth while.

I think that as time goes on we may get other operations into this method, such as seed extraction (possibly by the bushel) or hand weeding (by sections). When you think about it, you can see that a number of nursery operations could be adapted to this. All one has to do is work out the details.