

## Increasing Productivity in Propagation<sup>®</sup>

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### BACKGROUND

Prides Corner Farms is a large wholesale nursery in eastern Connecticut that produces a diverse line of woody ornamentals, herbaceous perennials, herbs, trees, fruits, and vegetables. Our propagation department generated over 3.5 million woody and perennial liners this past year. We use almost all propagation techniques including: unrooted cuttings, grafting, seeds, root divisions, and micropropagation to accomplish our tasks. Because we typically use more than 2–3 cuttings per propagation cell, we'll stick over 4 million cuttings. As you can imagine, we need to stick hard and fast in order to get all our liners done in a timely fashion. My objective today is to explain how Prides Corner Farms uses group incentives as a motivational tool to help increase productivity in propagation.

### INCENTIVES

**Group Incentives.** Group incentives are based on an entire crew's ability to produce more than a given amount of expectations agreed upon by the department's management team. A group, crew, or team consists of everyone involved in the propagation process, counting: people who harvest, people who process, people who stick, and people who fill and move trays around. In the case of sticking cuttings, we put a dollar value on each cutting and expect our crew to stick enough cuttings to cover their day's labor costs. Anything above and beyond that will be rewarded back to the team, and the money is divided equally amongst those team members.

How do we determine the dollar value of a cutting? For us, this can be determined a few different ways: (1) history, (2) goals, or (3) the degree of difficulty the cutting presents. For example: If our past has shown that we can effortlessly do about 7000 cuttings with a 13-person crew on an 8-h day, we might challenge this crew to do 8000 cuttings on an 8-h day as a break-even point. Everything above and beyond 8000 cuttings would be considered incentive pay. Another example would be if we had a goal to stick about 70,000 cuttings in 10 days or 7000 cuttings per day, we once again could challenge the crew to do 8000 per day as a break-even point. Again, everything above and beyond 8000 cuttings could be considered incentive pay. Of course there are many factors that come into play when trying to determine how many cuttings can be done per day. For example, some cuttings are easier to harvest, prep, and stick than others, so the numbers may fluctuate pending the type of cutting (i.e., handling cutting with thorns vs. no thorns, scaring a cutting vs. not scaring a cutting, single sticking a cutting vs. multi-sticking cuttings, or direct sticking into a cell vs. singling sticking into an open flat, etc.). Regardless the method, history, or time it takes to do certain cuttings, sometimes we find negotiating the expectations and goals amongst the team leaders, crews, and management works best for getting everyone to buy into the program. We'll also spell out our quality, safety, and cleanliness concerns to ensure they're not compromised.

**Value of a Cutting.** Once the incentive figures have all been worked out, we can value a cutting by dividing the number of cuttings expected/day by the cost of labor

paid out in that given time. Example: If a 13-person crew being paid an average of \$9.50 per h on an 8-h day can be expected to stick 8000 cuttings, each cutting would be valued at 0.124¢ each.

$$\text{Value of a Cutting} = \frac{\text{Number of cuttings expected}}{\text{Labor cost for that day}}$$

$$\text{i.e., Value of a Cutting} = \frac{8000 \text{ expected cuttings}}{\$988 \text{ days labor cost}} = \$ 0.124$$

**Calculating Group Incentives.** To calculate group incentives, we would multiply (the actual number of cuttings done that day by the value of each cutting) minus the day's labor cost. So, if a team stuck 9000 cuttings at 0.124¢ each on an 8-h day, the entire group would earn \$128 group incentives.

Group Incentives = (actual number of finished cuttings x value of a cutting) – day's labor cost

$$\text{i.e., Group incentives} = (9000 \text{ cuttings} \times 0.124\text{¢ value of each cutting}) - \\ \$988 \text{ days labor cost} = \$128$$

**Individual Incentives.** To get individual incentives, we simply take the group incentive and divide that by the number of people who worked that day. Continuing with our example from above, take the \$128 earned incentives and divide by the 13 people involved to get an Individual Incentive of \$9.85.

Individual Incentive = group incentive ÷ number of team members

$$\text{i.e., Individual Incentive} = \$128 \text{ group incentives earned} \div 13 \text{ people} = \$ 9.85 \text{ each}$$

If these same standards can be achieved for 5 days straight, each employee would take home an extra \$49.25 or earn an extra \$1.23/h on a 40-h week.

**Company Savings.** For the company, it saves money simply by getting the job done in shorter period of time:

Cuttings done (no.)	Days to finish	Labor cost	Labor \$ spent	Incentives paid out	Total \$ spent w/incentives
7000 at normal pace:	14.3 days ×	\$988 =	\$14,128.40 +	\$0.00 =	\$14,128.40
9000 w/incentives:	11.1 days ×	\$988 =	\$10,966.80 +	\$1420.80 =	\$12,387.60
			Bottom line savings	=	\$1,740.80

It becomes a win/win for the company and employees when the company can save money on labor costs by doing more in a shorter period of time, while the employees can essentially earn more for hustling a little harder. To keep accurate records, our results are entered into an Excel program for tracking our day's results and earned incentives.

If incentives aren't made on a particular day for whatever reason, we do not justify penalizing the group for those losses. Remember (in our example above), we're already expecting the team to do 1000 more than what is normally done. Because the group usually comes closer to making incentives than not, it isn't usually worth taking money away for the days when not as productive; especially when the group is seen busting hard most days to accomplish their goals. The only time incentives are taken away is when quality or safety has been compromised. As said earlier, this is clearly spelled out in our explanation of what is expected.

### GROUP INCENTIVES SUMMARY

Be aware that things aren't always perfect when trying to implement incentives:

- Incentive rates are a moving target and will more likely need to change when...
  - Team significantly exceed or fails to meet expectations; this especially seen when implementing for the first time
  - New ideas, tools, or equipment change the potential
- Quality, safety, and cleanliness can be compromised if not monitored
- Incentives can be very difficult to implement when jobs can't be quantified

Prides Corner Farms has found these as benefits for group incentives:

- Crews are generally happier and motivated
- Team bonds together to work smarter and efficiently
- Group self-monitors themselves
- Team members, who are usually reluctant to speak, begin making suggestions to help for improvement
- Management can use results as an accurate tool to schedule workloads and plan labor budgets
- Company or business is likely to retain more core and seasonal employees
- Company or business is likely do more with fewer people

Group incentive can be used:

- No matter how big or small the business
- No matter what size the group or job
- No matter the amount of hours worked
- No matter if the business has sophisticated equipment or not

With a forecasted budget of 10% less than 2008, our propagation department paid out almost \$18,000 worth of incentives so far this year. This is only 2.5% of the department's total labor budget. Currently, we're still 1% under budget for the year while still producing the same number of liners last year.

Prides Corner Farms has successfully used group incentives for these job functions:

- Propagation
- Potting
- Spacing
- Consolidation
- Fertilizing
- Covering greenhouses