

Incentive Pay In Propagation

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BACKGROUND

Most Nursery Jobs are on Incentive Pay. At our nursery, most jobs in propagation from taking cuttings to filling flats are on incentive pay or piecework. The incentive rates we pay vary from one job to the next. The rates are determined by using a study for distance and time. Each job has a job code number and a job code rate which it pays.

Incentive pay can increase your production as much as 300%. This must also be closely supervised for quality and consistency. On average, our crews usually consist of 10 workers.

Over 250 Job Descriptions In Plant Propagation. We have over 250 job descriptions just in propagation. For taking cuttings, each plant cultivar may have a different incentive pay scale. There are three different rates in taking cuttings: low, average, and high. This is determined by the availability of cuttings on each plant group.

Computer Software Systems. Our general operating software is maintained in-house. Software for inventory, production planning, piecework, and order processing were written at Flowerwood. We have modified other basic accounting functions (payroll, payables, etc.) to suit our requirements. The software was developed using a database management system and a specialized form of BASIC programming language. All of this runs on an operating system called Super DOS, which allows a standard PC to run multiple terminals. We run several of these systems. Flowerwood's main operation in Mobile and Baldwin counties uses a 486 PC to run about 40 terminals in four offices with various types of telecommunications equipment. We also have similar smaller systems in our facilities in Georgia, Florida, and northern Alabama, as well as the system which serves Flowerwood Liners. These systems can be linked for file transfer, on-line processing, and software maintenance.

BASIC USE OF PRODUCTION PIECE-WORK: HOW TO DETERMINE PAY RATES FOR PIECEWORK JOBS

Develop a Job Description. It is important to develop a job description, which includes exactly what must be done and what the finished product should be. After that, a job number is assigned.

Study Workers Performing the Job. Carefully study a group of workers doing the job that you have described. Chart the time of each worker and exactly how many production units or pieces each worker completes in the allocated time period. It is important to include **all** the time that the worker spends to accomplish the job. Typically, designated break times are subtracted from the job time. Trips to the rest room and other related work stoppages are included in the job time. This

gives employees an incentive to stay on the job. A job study usually lasts anywhere from 2 weeks to 2 months depending on the frequency of the job, and the consistency of the time data collected during the study.

Establishing a Pay Rate. Once you are comfortable with the data you have accumulated from the study, you are ready to set a pay rate. Take the amount of production units or pieces your average worker does in a 1-h period and divide that number into \$4.25 (minimum wage). This will give you a minimum number of production units which a worker must complete in an hour (or any given time) to meet a satisfactory level of production for employment.

Example 1. $\$4.25$ (hourly wage) \div 212 (average number of production units completed in 1 h for a given job) = $\$0.02$ (determined pay rate per unit or piece). Hence, the number of production units that an employee produces that is greater than the average 212 units (based on \$4.25) is the *piecework incentive earnings*.

Example 2. If 400 units of production are produced per hour, than $\$0.02$ (determined pay rate per unit) \times 400 (amount completed in one hour) = $\$8.00$ (money earned)— $\$4.25$ is the hourly wage for this hour and $\$3.75$ is the *piecework incentive earnings*.

Once a pay rate per production unit is set and an employee's hourly wage increases, they must complete more pieces an hour to meet the minimum production standard, which is the employee's hourly wage. If an employee produces less than the minimum amount for satisfactory production in a given time, then the employer's cost per piece increases because the employer must pay the minimum wage (or agreed upon hourly wage) regardless of the fact that the employee's production earnings fell below the hourly wage agreed to.

Establishing a Pay Rate for a Job Done by a Group. To use the piecework system for a job done by a group (i.e., filling and potting at the potting machine or loading a truck), take the total amount of production units completed by the group in a given time period and divide this number by the total worker hours used to complete the job. This will give you the number of units done per worker hour used.

Example 1. $20,000$ units \div 48 h (6 workers @ 8 h/worker) = 417 units completed per worker hour. Credit each worker with 417 units for each hour they spent on the job and use this average as the basic piecework formula to figure incentive pay. A pay rate per unit of production for group jobs can also be established by using the same method as previously mentioned in the section on establishing a pay rate for an individual worker.

Recording and Analysis of Employee Time and Production Units. The employees time and production units completed for each job are recorded by a designated person, who is typically a crew leader/supervisor, and turned in at the end of the day. The numbers are entered into a computer program or processed to determine the employee's earnings for that job. The numbers and averages are posted in a designated area where all the employees can see it. A report is generated at the end of the week which has all of the jobs an individual employee completed that week and their total piecework incentive pay for the week on one sheet (See Tables 1 and 2).

If a computer program is not available to calculate these figures and generate these reports, they can be done fairly easy and quickly by hand with a calculator.

Table 1. Some examples of how piecework works. Employee name, unit rate, total number of units produced, and employee total pay, which included the hourly wage + incentive wage.

Employee	Unit rate (\$)	Units produced	Total pay	Hourly wage	Incentive wage (\$)
Jose	.015	500	\$7.50	\$4.25	\$3.25
Mike	.015	300	\$4.50	\$4.25	\$0.25
Alice ¹	.015	200	\$3.00	\$4.25	-\$1.25

¹ Note that with the third employee, Alice, the employer's cost per piece rises to \$.021 because the company must pay the \$4.25 even though the employee only produced \$3.00 worth of units. This employee is working below the minimum standard of production for employment.

A Valuable Tool for Gauging Employee Productivity and Labor Costs. The piecework method is an excellent way to gauge employee production and track the labor cost involved in bringing a product to market.

Record Keeping by Crew Leaders. No matter what the task, a crew leader must record the following information:

- The name of the individual who did the work.
- Description of the work that was done.
- How many units were produced.
- The time it took to complete the job.

Crew leaders will use one the following methods to keep track of the work performed:

A) A pre-printed card 22 cm × 14 cm (8.5 inches × 5.5 inches)—best used for individual or very small groups and will tolerate exposure to inclement weather.

B) Standard 22 cm × 28 cm (8.5 inches × 11 inches) pre-printed paper sheets—best used for larger groups where various start and stop times and various task performed will need to be recorded. Samples of the forms used are found at the end of this article.

Stream-lining Record Keeping. To ease computation and record keeping for the crew leader, time is rounded to the nearest 5 minutes and converted into 100s, as indicated below.

Minutes	Hundreds
5	.08
10	.17
15	.25
20	.33
25	.42
30	.50
35	.58
40	.67
45	.75
50	.83
55	.92
60	1.00

To reduce the amount of writing required of the crew leaders, every task (or job) has been assigned a code number. Propagation has an additional set of code numbers for each type of plant cut and propagated. This second set of numbers for propagation helps in keeping track of additions to the inventory.

A sample of the daily production incentive earnings analysis at Flowerwood Liners, Inc. is shown in Table 2. Also included is the date, liner identification number, employee number and name, description of the job performed, plant name, percentage of pay rate, total hours, and the incentive pay earned.

Table 2. Daily production incentive earnings analysis at Flowerwood Liners, Inc. Included is the date, liner identification number, employee number and name, description of the job performed, plant name, percentage of pay rate, total hours, and the incentive pay earned.

Date 10/31/094 04:32 PM

Liner # done	Emp #	Employee name	Units	Description	Plant name	Pay rate(%)	Actual min.	Total hours	Incentive earned
For 10/28/94									
Liners									
011299	01133	Danita L. Hall	2074	Cuttings stuck	Azalea 'Gumpo Pink'	189	105	1.75	\$11.17
011300	00133	Danita L. Hall	6480	Cuttings stuck	Azalea 'Hinode-giri'	229	250	4.17	\$38.32
011301	00151	Katherine E. Winston	2098	Cuttings stuck	Azalea 'Gumpo Pink'	191	105	1.75	\$11.44
011302	00151	Katherine E. Winston	6310	Cuttings stuck	Azalea 'Hinode-giri'	227	244	4.08	\$37.18
011303	00409	Gabrielle Atkins Over	1836	Cuttings stuck	Azalea 'Gumpo Pink'	169	109	1.83	\$8.58
011304	00409	Gabrielle Atkins Over	5094	Cuttings stuck	Azalea 'Hinode-giri'	194	244	4.08	\$25.95
GRAND TOTALS							1057	17.66	\$132.64