

Cost of Growing Roses

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In talking with some of my friends that are not associated with the florist industry, it always amazes me that they think there is very little work connected to the raising of floral crops. I assure them that there is quite a bit more involved than just letting the pretty flowers grow and I don't have to tell you that a lot of money is spent taking care of those plants. Just how much is spent and where it goes was the main purpose of this survey of Rose Growers.

In studying the results of the survey it seems that there are actually three phases to this greenhouse business. Those that have mastered all three are in clover. When one of the three has you on the run, you have to be good at the other two if you are to make a profit and if you are good at only one, watch out because you are really on thin ice. As we go through the data see if you don't agree with me that the three phases of a greenhouse business are *growing*, *selling*, and *cost control*.

Let's look at Table I. This is a tabulation of the data as reported by 12 Pennsylvania growers. Survey sheets were sent to 39 firms that grow roses. Many of those firms not reporting grow other crops and

have no separate costs. The 12 that did report are well spaced over the 4 size ranges therefore giving us a chance to compare large and small operations.

There are some items of interest I would like to call to your attention. First is the item *Net Expense*. If you take those growers that show an average profit per plant it will be found that they spent about 80 cents of each net sales dollar for all things except administration and profit. This is true even though their sales ranged from \$1.50 to \$2.25 per plant. So the first generalization is that you should spend about 80% of your sales dollar for labor, heating, maintenance and the like. The remaining 20% should go for administration, capital usage, and profit.

Being more specific on profit, if we can take these twelve growers as typical the *average profit* is 8.7% of the net sales dollar. This takes in the whole range from the loss of 1.5% to the profit of 38%. How can there be such a great difference when all the growers surveyed come from the same geographical area and have the same market conditions with which to contend? Let's look farther to see if we can find the reasons.

TABLE I
Prepared by Robert M. Way, Kennett Square, Pa.
Expenses as Percentage of Net Sales

Grower	1	2	3	4	5	6	7	8	9	10	11	12
Net Sales	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Wages	1.42	40.5	32.7	28.17	43.3	41.4	46.6	29.0	37.3	34.72	45.1	32.9
Heating Wages	.....	.....	10.1	.....	4.6	3.41	1.0	2.5	.....	3.92	.....	1.0
Coal and Oil	23.42	14.0	10.0	5.54	12.6	4.08	7.3	7.4	13.4	11.52	7.01	7.9
Plants	4.18	.....	5.41	4.08	8.7	3.03	5.9	4.5	5.4	3.36	3.43	4.2
Supplies	10.84	3.5	4.52	2.99	5.7	8.29	4.9	5.0	7.3	7.68	5.54	7.1
Taxes	1.63	3.0	2.14	1.33	1.3	2.38	1.3	0.1	1.2	4.20	1.95	0.9
Depreciation	5.03	2.0	5.10	10.90	4.8	9.45	6.4	3.2	3.1	10.08	4.98	5.1
Repairs	10.14	.....	4.32	4.69	2.4	1.51	4.2	5.4	3.2	7.28	2.71	7.9
All Other	6.69	7.4	7.91	11.57	10.4	7.31	3.5	4.9	2.1	6.42	9.08	12.5
Net Expense	62.69	70.4	82.24	69.27	93.8	80.92	81.6	62.0	74.5	89.19	79.8	79.5
Administration	35.58	29.6	12.00	15.83	7.6	5.39	8.4	.....	2.7	6.72	10.5	11.2
Total Expense	98.28	100.0	94.24	85.10	101.4	86.31	90.0	62.0	101.5	95.92	90.2	90.7
Profit or Loss	1.72	.....	5.76	14.90	loss-1.4	13.69	10.0	38.0	loss-1.5	4.08	9.8	9.3
No. of roses shipped divided by no. of plants	19.1	.....	27.5	28.2	24.36	31.1	24.4	30.8	23.1	29.0	30.1	24.7
Net sales divided by no. of flowers shipped	.066	.....	.055	.090	.067	.068	.067	.096	.067	.091	.074	.07
Total number of plants divided by number of employees	8500	3600	3921	4481	4506	4334	4280	4066	4320	4100	2702	5436
Size of Range	A	A	B	B	B	C	C	D	D	D	D	D
	up to 20,000 plants		20,000 to 40,000 plants		40,000 to 80,000 plants			above 80,000 plants				

FLOWER PRODUCTION

The *production per plant* might tell us something. As you can see, it ranges all the way from 19.1 to 31.1 flowers per plant. If you take the 5 highest producers you will find all but one of them are in the 5 top money makers. That 5th fellow runs with higher costs and thereby lets two other growers who average 4½ flowers per plant less make a greater profit. So production is not everything but it certainly helps to have it high.

SELLING PRICE

Another factor in this profit picture is the *average price received for a rose*. This also shows great variation. As you can see, it goes from \$.055 to \$.096. Taking the top five of this list we again have all but one

of them in the top 5 money makers. That 5th fellow gets replaced by someone who gets 2.3 cents per plant less. So we can say that a high return is not everything in insuring a high profit but it certainly helps.

The last item on Table I that I want to talk about is the *average number of plants per employee*. There seems to be fair agreement here as you can see. The actual average is 4200. Some get by with a lot less help but their profits do not show any significant increase. Others use a lot more yet their profits are somewhere near average. So for a general yardstick it would seem that 4200 plants per man is a good value to use. Let's get on and look at this third item — costs.

COSTS

To get the costs of these 12 growers on a better basis for comparison, Table 2 was prepared. This was gotten by multiplying the flowers per plant by the dollars per plant which gave us the net sales in dollars per plant. The other figures were gotten by using the percentages each grower submitted. In Table 3 you will find the average of each item as well as the low and high figures. Also included for your convenience are some figures Roses, Inc., compiled in 1950. They were included for your convenience and comparison.

Where does a grower spend his money? *Obviously the largest single item is labor.* That amounts to an average of 51.5% of the net expense or 79.7 cents per plant. Notice the large difference between the low and the high. There is also listed the average annual wage of each grower's employees. I've tried to find a relationship between amount paid and production to see if quality of workmen has any effect. That I could not do. Not knowing who any of the growers are we can not tell if it is the variation within the labor market that makes the wide difference.

The one item that you would think would be fairly uniform would be the *fuel bill.* Not so. That's quite a range from 8.6 to 30.4 cents per plant. By saving only 10 cents per plant, those high fellows could double their profits.

The other costs are listed and you can compare your own against the average and the low. It will give you some sort of yardstick as to what other grow-

ers are doing. Maybe it will get you interested enough to do some thinking on how you can best master this cost control item. As for a general yardstick for this phase of the greenhouse business I have listed the *flowers per dollar net expense.* This gives the number of flowers sold for each dollar spent on labor, heat, plants, etc. It is supposed to indicate how well you balance what you spend against what you produce. Let's take a look and see if it checks out. Grower 10 has a low ratio. His production as shown in Table 1 is high but his costs are higher. It looks as if this third item has him on the run. How about grower 9—his ratio is high. He should have his costs under control and he does. But his profits show he is in trouble. He will have to work on sales and growing if he wants to better his position. How about grower 8; he made the highest profit? He is where you would expect him, right in the middle. He watches his costs but since he has the other two phases licked he doesn't have to be too careful. So figure your own ratio and see if you come in the 17 to 18 flowers per net sales dollar range.

Just to summarize what I have said, all greenhouse owners must watch those three phases—*growing, selling, and cost control.* Taking the 12 rose growers as typical you should be getting *26.8 flowers per plant or better.* You should be able to sell them for *7.53 cents or more* and you should keep the *ratio of flowers per dollar net expenses around 17 to 18.* On the basis of your sales dollar you should not spend more than 80 cents on your net expenses; the remaining 20 cents should be for administration and profit.

TABLE 2
Expenses as Cents per Plant

Grower	1	2	3	4	5	6	7	8	9	10	11	12
Net Sales	126	100	151	252	163	212	161	296	151	264	222	173
Wages	1.8	40.5	49.4	71.0	70.6	88.2	75.0	85.7	56.5	91.5	100.2	57.0
Heating Wages	.....	.....	15.2	.....	7.5	7.2	1.6	7.4	.....	10.4	.....	2.0
Coal and Oil	29.4	14.0	15.1	14.0	20.5	8.6	12.5	21.9	20.2	30.4	15.6	13.7
Plants	5.3	.....	8.2	10.3	14.2	6.4	9.5	13.3	8.2	8.8	7.6	7.3
Supplies	13.6	3.5	6.8	7.6	9.3	17.5	7.9	14.8	11.0	20.3	12.3	12.3
Taxes	2.1	3.2	3.2	3.4	2.1	5.0	2.1	0.3	1.8	11.1	4.3	1.5
Depreciation	6.4	2.0	7.7	27.5	7.8	20.0	10.3	9.5	4.7	26.6	11.1	8.8
Repairs	13.1	.....	6.5	11.8	3.9	3.3	6.8	16.0	4.8	19.2	6.0	13.7
All Other	6.4	7.4	11.9	29.1	17.0	15.5	5.6	14.5	3.2	16.9	20.1	21.6
Net Expense	79.1	70.4	124.2	174.5	152.9	171.6	131.4	183.4	112.5	235.5	177.1	137.5
Administration	44.8	29.6	18.1	39.9	12.4	11.4	13.5	.....	40.8	17.7	23.3	19.4
Total Expense	123.9	100.0	142.3	211.4	165.3	183.0	144.9	184.0	153.3	253.2	200.4	156.9
Profit or Loss	2.1	0.0	8.7	37.6	loss-2.3	29.0	16.1	112.0	loss-2.3	10.8	21.6	16.1
Average annual wage paid (plants per employee times wages per plant)	.....	.....	2530	3130	3520	4120	3280	3780	2440	4180	2710	3200
Flowers per dollar net expense	.....	.....	22.1	16.2	15.9	18.1	18.5	16.8	20.5	12.3	17.0	18.0
Size of range	A	A	B	B	B	C	C	D	D	D	D	D

TABLE 3

	1954 Penna. Flower Growers Survey of 11 Rose Growers in Penna.			1950 Roses Inc. Survey of 20 Rose Growers throughout the U.S.A.			
	<i>Per Plant</i> Ave.	<i>Low</i>	<i>High</i>	<i>Per Cent of</i> <i>Net Expense</i>	<i>Ave.</i>	<i>Low</i>	<i>High</i>
Wages	\$.797	(.565 -	1.019)	51.5	\$.736	(.53 -	1.32)
Fuel	.178	(.086 -	.304)	11.5	.248	(.12 -	.53)
Plants	.035	(.00 -	.13)	5.5	.084	(.033 -	.15)
Supplies	.116	(.035 -	.203)	7.5	.....	.....	.....
Taxes	.034	(.003 -	.111)	2.2	.034	(.001 -	.10)
Depreciation	.122	(.020 -	.275)	7.9	.071	(.01 -	.14)
Repairs	.101	(.00 -	.192)	6.5	.117	(.012 -	.32)
All Other	.114	(.032 -	.291)	7.4	.211	.....	.....
Net Expense	\$1.547	(.704 -	2.355)	.....	\$1.501	.....	.....
Administration	.258	(.114 -	.448)	.....	.208	.....	.....
Total Cost	\$1.805	(1.00 -	2.532)	.....	\$1.709	.....	.....
Flowers per plant	26.8	(19.1 -	31.1)	26.4	(22.5 -	33.0)
Production Cost in Dollars per Flower	.0743	(.0551 -	.096)

Your editor,
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