Ag Decision Maker

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Evaluating Marketing Outlets Using Whole-Farm Records

hase (2006) showed that enterprise records are useful in evaluating pricing, product mix, • and production changes, at the individual crop level. Moreover, Chase (2008) indicated that enterprise production and transaction cost records can be used to evaluate marketing alternatives. But what if you don't have detailed enterprise records? What if you only have access to whole-farm records that are not broken down by crop or enterprise? This publication will illustrate how whole-farm records (the type of records you need to keep to file your income taxes) can be used to evaluate various marketing outlets. Keep in mind the illustrations outlined are examples only. Marketing costs vary significantly by specific marketing outlet depending upon the volume of sales that can be made at that outlet compared to the costs of moving those products.

To illustrate how marketing evaluation can be done using whole-farm records, we will create a hypothetical 2-acre vegetable farm. Whole-farm records should be kept annually and include crop inputs (seed, soil mix, containers, fertilizers, pesticides, mulch, etc.), hired production labor, packaging and handling containers and supplies, depreciation on machinery, buildings, and the irrigation system, and land rental. In addition, records are available for the whole farm related to marketing expenses (tables, supplies, vender fees) and hired labor. A standard rate of \$0.50 per mile has been used to estimate transportation expenses for both the variable and fixed costs components of the delivery vehicle.

The only item missing is an estimate for family contributed (non-paid) labor, which can be determined. Although contributed family labor is not a deductible business expense used for income tax calculation, it will be included here to determine net profit. The reason for inclusion is that family contributed labor is often larger in economic terms than all other direct costs combined for small vegetable farms. It is important for producers to pay themselves for their contributed labor, as well as their machinery and land. By including contributed labor, land, and machinery as expenses, the resulting net profit is the economic return to the management of the farm.

Sales projections are for total gross revenue of \$18,000 per acre, all from direct retail sales. Direct production expenses including depreciation, land rent, and non-paid (family contributed) labor are \$10,440 per acre (58 percent of sales). The business goal is to have a net profit of \$3,600 per acre (Table 1). Product mix is assumed to be the same per acre.

Table 1. Revenue, costs, and income for the farm, per acre.

	Dollars per Acre	Dollars per Farm
Gross revenue	\$18,000	\$36,000
Production costs	<u>10,440</u>	<u>20,880</u>
Production profit mar	gin \$7,560	\$15,120
Marketing costs	<u>3,960</u>	<u>7,920</u>
Net Farm Income	\$3,600	\$7,200

Given the gross revenue, production costs, and net profit percentage, the amount of dollars left to market the crops produced can be calculated. In this case, the marketing cost allowance would be \$3,960 per acre.

Initial evaluation

Several retail and wholesale marketing outlets are available within an 80-mile radius of the farm. An urban farmers' market is 80 miles from the farm. It is believed that about 85 percent of all the projected sales can be moved through this market. The remaining 15 percent will be sold through various minor markets. Keep in mind projected sales revenues are not the same as production; we must allow for both

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storage and handling losses as well as returns from the farmers' market. The urban farmers' market occurs on Saturday mornings. The total preparation, set-up, sales, and tear-down time (including driving to and from the market) is estimated at 9 hours. Two people will need to be on site at all times because of the potential volume of business on any given Saturday. The round-trip mileage is 160 miles. Marketing supplies (bags, boxes, etc.), annual cost for signage, tables, and other equipment, and vendor fees is estimated at \$50 per day. The farmers' market agreement requires vendors to be on-site 20 weeks per year. Total marketing costs are presented in Table 2.

Table 2. Farmers' market estimated costs, per day.			
Supplies Labor –			\$50.00
preparation and sales	18 hrs	\$12.00/hr	216.00
Transportation	160 miles	\$0.50/mile	<u>80.00</u>
Total estimated marketing	j cost		\$346.00

Total estimated farmers' market costs for the season would be \$6,920 (\$346 x 20 weeks). The marketing cost allowance for this market would be \$6,732 (85 percent of the total allocation of \$7,920). The projected marketing cost is greater than the marketing allowance indicating this market may not make economic sense unless sales can increase without an increase in marketing cost or marketing costs can be decreased without a decline in sales.

A second smaller farmers' market is available much closer to the farm. It is expected that 65 percent of total projected sales can be accomplished through this market (50 percent on Saturday morning and the other 15 percent on Wednesday afternoons). The remaining 35 percent will be sold through various markets. Therefore, to achieve this sales volume, attendance would be needed two days per week instead of the one at the larger urban farmers' market. Because of lower sales volume, one person would be needed on-site. Estimated costs per day are presented in Table 3.

Table 3. Farmers' marl day.	ket estima	ated costs	, per
Supplies Labor –			\$20.00
preparation and sales Transportation	8 hrs 30 miles	\$12.00/hr \$0.50/mile	96.00 <u>15.00</u>
Total estimated marketing cost \$131.00			

The cost per marketing day is substantially less at this market (\$131 vs. \$346). However, it will take twice as many days to sell (a smaller percentage of total sales) at this market resulting in an annual cost of \$5,240 (\$131 x 40 market days). The annual cost is higher than the allocated marketing cost of \$5,148 (65 percent of the total allocation of \$7,920).

If farmers' markets are not a viable option for marketing, then maybe there is another retail or wholesale (institutional) outlet that can be evaluated. Changes to the estimates for gross revenue, percentage of production costs to gross revenue, and marketing cost allowance need to be made. Let's assume institutional sales per acre are on average 20 percent lower than retail leading to gross revenue of \$14,400 per acre. Keep in mind that price differences per unit (pound, bunch, etc.) may be greater than 20 percent. However, not all products taken to a farmers' market are sold. Unsold products have a zero (or minimal price) and must be averaged with sold products. Therefore, the difference between the weighted average farmers' market price (sold and unsold) and institutional sales price is likely to be smaller than the quick comparison between prices per unit. Production techniques and cost will be unaffected by marketing outlet and remain at \$10,440 per acre. The dollar per acre profit goal remains the same as well at \$3,600 per acre. The marketing allowance therefore is reduced to \$720 for the farm (Table 4).

Table 4. Revenue, costs, and income for the farm, per acre, institutional market.			
	Dollars per Acre	Dollars per Farm	
Gross revenue	\$14,400	\$28,800	
Production costs	<u>10,440</u>	<u>20,880</u>	
Production profit margi	in \$3,960	\$7,920	
Marketing costs	<u>360</u>	<u>720</u>	
Net Farm Income	\$3,600	\$7,200	

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The division of production and marketing costs as a percentage of gross revenue changes dramatically for the institutional sales market compared to the direct market. In this example, production costs make up 72.5 percent of gross revenue (\$10,440/\$14,400) whereas marketing costs are reduced to only 2.5 percent of revenues (\$360/\$14,400). The question is: can marketing for the farm be accomplished to institutions for \$720 over a 20 week period?

Because tables, signage, and other farmers' market specific materials are not needed, supplies per delivery day are less. However, packaging products will still need to be used to deliver institutional products (Table 5). Labor for preparation and sales would be much less since set-up, presence at the farmers' market, and tear-down are not required.

Table 5. Institutional market.			
Supplies			\$5.00
Labor –			
preparation and sales	3 hrs	\$12.00/hr	36.00
Transportation	30 miles	\$0.50/mile	<u>15.00</u>
Total estimated marketing cost		\$56.00	

The institutional markets are located on a 30 mile roundtrip loop from the farm resulting in a transportation cost of \$15 per delivery and a total estimated marketing cost of \$56 per delivery. A 20 week delivery schedule (two deliveries per week) would result in a total annual marketing cost of \$2,240, far above the marketing allowance of \$720.

Next step

None of the marketing outlets reviewed initially allowed the owners to meet their financial goals based on their whole-farm records. Does this mean their goals are unrealistic or that adjustments need to be made to their marketing plan? What should they do now? There are other outlets such as a community supported agriculture farming operation, u-pick, on-farm stands, as well as other outlets, that could be analyzed along with a combination of marketing outlets.

For example, what would happen to transaction costs if two different marketing outlets were served

locally? Let's assume fifty percent of farm sales occur through the smaller farmers' market on Saturday morning and the other fifty percent to institutional markets in the same town (one delivery a week).

Table 6. Combination farmers'market andinstitutional market.

	Local Farmers	Local Institutional
	Market	Market
	50%	50%
Gross revenue	\$18,000	\$14,400
Production costs	<u>10,440</u>	<u>10,440</u>
Production profit margin	\$7,560	\$3,960
Marketing costs	<u>3,960</u>	<u>360</u>
Net Farm Income	\$3,600	\$3,600
Supplies	\$20	\$5.00
Labor – preparation and	sales 96	36.00
Transportation	15	15.00
Total estimated market	ing cost \$131	\$56.00
Total annual marketing of	ost \$2,620	\$1,120
Total marketing allowand	e \$3,960	\$360
Marketing balance vs. allo	owance \$1,340	-\$760

Eliminating the inefficient Wednesday farmers' market and selling into a lower costing institutional market allows the farm to move all products under the total annual marketing goal of \$4,320 (\$3,960 + \$360). The marketing goal is met in spite of the institutional market costing \$760 more (\$1,120 compared to \$360) than its allowance. In this case a combination of farmers' market and institutional sales will allow the growers to achieve their net profit goal.

Summary

The 2-acre farm was created to illustrate how vegetable growers can evaluate different marketing outlets based on whole-farm records. Whole-farm records are easily attainable compared to enterprise records and still allow growers to determine a marketing cost budget based on gross revenue, production costs, and a net goal. Because production costs and the net profit goal do not vary by marketing outlet, comparisons between outlets focus on how sales revenue changes along with the costs of moving the product to the buyer.

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The examples in this publication indicated the growers could not market all of their products through one marketing channel and meet their net profit goal. Clearly, this is not always the case. Some growers thrive by marketing their products through one outlet such as a farmers' market, community supported agriculture, or other outlet. However, it is likely that most vegetable growers will have multiple marketing outlets available to them within a reasonable radius from the farm and the net profit to be determined from those outlets will vary significantly. It is important, therefore, to evaluate each marketing outlet as to its potential contribution to the overall net income of the farm.

References

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