Title: Young Growers Alliance Study Group for Financial Benchmarking.

Personnel:

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Collaborators:	Lynn Kime, Penn State Extension Donald Seifrit, Penn State Extension

Duration of Project:

One production year, with the potential to re-apply for a multi-year study at a later date.

Justification:

Objective Abstract

The objective of this proposal is to initiate a process by which growers in Pennsylvania can benchmark their enterprises' overall financial health against that of their peers. To do so, a study group will be formed with the assistance and involvement of the Young Grower Alliance to begin the establishment of a comprehensive database of secure, anonymized information regarding the financial state of each participating enterprise. Once a sufficient body of information has been collected, each enterprise's status will be evaluated against the bulked data from their peers. This benchmarking will provide valuable feedback regarding areas where the enterprise is succeeding and how to manage areas where it is underperforming. Face to face meetings will be used to collect the data and to review the findings in a private setting. A workshop will also be organized where a review of the bulked, anonymized data will be conducted, and tools and advice given for how to address identified concerns.

Extension Advisory Committee Priorities

This proposal addresses the "Farm Financial Analysis" priority under the general category of "Business Management". It also, to a limited extent, overlaps with the "USDA – NRCS – TAP – WHIP – Governmental Risk Management – Education / Participation" priority, particularly with all aspects of risk management, whether associated with governmental relief programs or not.

Narrative

Commodity prices play a big role in the profitability of a farm or business. However, these prices are only part of the total sum in determining the "income" the farm achieves. Agricultural commodities are for the most part relatively homogenous and only a few aspects of the products have differentiating qualities in determining the overall price of the product. Commodity prices are determined by supply and demand and the only real strategy to influence these prices in the long run is by fixing or hedging prices on the future markets or, to a lesser degree, negotiating better deals via off-take agreements directly with the consumers of the products. In addition, the option exists to direct market a percentage of production. However, this method is not without additional expenses and concerns.

Price to a large extent is therefore out of the producer's control. The other parts of the sum are the level of output (bushels/bins per acre), from the given resource. The problem, which is somewhat

unique to agriculture, becomes producing optimal results with regards to the level of outputs on a year after year basis. The third part of the sum is the cost of producing that output or service, and that is directly within the control of the producer/manager.

The principal objective of this project is to develop a study group with the Young Growers Alliance whereby financial data will be collected and analyzed from each farm as well as among the whole group. In doing so, the aim is to find differences and sources of efficiency in areas of marketing, production, and input control between the farmers participating in the study. By benchmarking each participant of the study group against themselves each will learn from their analysis and their peers who are performing better than themselves in various aspects of their orchard enterprise. This will in turn lead to improved efficiency and long-term viability for each of the participating farms.

Besides the financial benchmarking of the individual and groups results, economic studies on new production techniques and practices will also be performed by creating partial or enterprise budgets. These studies could for example be on things like mechanization, variety selection, orchard renovation or replacement schedules, etc., as each will have production impacts (whether positive or negative). These can inform not only the members of the initial study group but eventually non-participating orchard owners throughout the region as a whole. The results from the financial analysis could also highlight common difficulties experienced by members in the group which could then inform growers throughout the Mid-Atlantic region as well, (obviously the more participants, the better informed the inferences will be), or will at least reveal areas that should be analyzed in greater depth. Currently there are similar studies being performed by PASA and Kitchen Table Consultants in Pennsylvania designed to improve the farming client's businesses. Similar studies have also been performed in the past in New York State. (See Appendix A for an example of a multi-year benchmark average similar to what would be provided participants in this study group.)

Procedures:

The financial data to be collected will include production statements and income statements as well as balance sheet information for the various farmers. The aim of the study group is then to "benchmark" the farms against the top, middle, and bottom third of the participating producers. By comparing the single producer to other producers in the same industry using the same evaluative criteria, the individual producers will learn how other producers are doing in areas that they are having difficulties with, and vice versa. In this way they can learn from the successes of their peers to identify areas of improvement to increase profitability.

It should be stressed prior to outlining the methodology that data collected to assist in enterprise evaluation will be kept in the strictest of confidence, and the number of people able to access the source data will be strictly limited to the financial team (PI Dobrowsky, collaborator Kime, and possibly co-PI Weber if warranted) unless otherwise granted clearance by the business owner. Enterprise-specific results will be shared with only those authorized by the business owner. At no point will other members of the cohort be given the private details of another business; rather, the evaluations will be based upon the anonymized and aggregated whole of their peers. Data collected will be maintained with strict security in mind at all times.

Methodology

The following outlines the general procedures that will be used to acquire the data and what information will be collected to establish a comprehensive overview of business expenses, assets, debts, and liabilities. Examples given below should be considered an "ad hoc" list at this time; it will be refined based upon the types of businesses enlisting in the pilot program.

1. Identify and enroll participating enterprises and classify business type (wholesaler-fresh eating, wholesaler-processing, direct market-on site, direct market-urban) for each participant. Three members in each of these classes will be sought for enrollment in the initial study.
2. Clarify major categories of expenses, assets, liabilities, and debts. The list will be developed from Penn State's prior experience in developing budgeting tools for the orchard industry and based upon an initial round of interviews conducted with participants. Some of the possible areas for exploration include: land rental fees (if not owned); taxes; outstanding mortgages or other loans/obligations; expenses related to chemical inputs, installation and maintenance of new or existing orchards, equipment purchases, maintenance, and insurance, post-harvest storage and handling fees, and local infrastructure; employee wages and benefits; licensing fees associated with managed varieties; and other aspects unique to the particular commodity being produced such as the returns associated with the type of fruit grown, whether that fruit is packed, processed, auctioned, or sold directly to the consumer.
3. Collect primary data via interviews, paper forms, analysis of documents, etc.
4. Analyze the data, calculating several critical ratios common to all participants using credit analysis software such as "FINPACK" from the University of Minnesota. Each ratio developed will show impacts to specific financial aspects of the farm business.
5. Organize the results in comprehensible format.
6. One-on-one visits with participants to discuss the analysis with an agricultural economist, PI Dobrowsky.
7. Present group results and evaluate the findings at a workshop.

PI Dobrowsky will design the initial surveys with co-PI Weber and collaborator Kime, with advice provided by the participants. Collaborator Seifrit will assist in identifying potential participants in this survey from among the growers in the south-eastern region of the state and will assist the program assistant in the organizing of the face-to-face consultations with the growers. PI Dobrowsky will be the primary curator of the data collected and responsible for its security and analysis. Co-PI Weber will assist PI Dobrowsky in the collection of the information as needed, and per the permission of the participating member. Collaborator Kime will also assist in the final presentation of the data and the development of the information packet presented at the end-of-project workshop.

Expected Outcomes

The data collected will be reviewed and analyzed by the team and the participating producer. The ratios calculated will show areas where possible improvements can be made or deviations from others may be explained. Because of the diversity of potential participants, comparisons between producers may not mean as much as looking at multiple years from the same producer. Thus, we are considering

this study group as a pilot program for a multi-year project that will provide additional reviews in successive years, and to develop the core metrics for useful longitudinal analysis.

The evaluations of the outcomes will provide each participant with a possible plan to remedy potential downturns in their business. The dairy industry which has been using benchmarks for many years, allows producers to compare their operations against others of similar size ranges to gage success. This project will be a first for Pennsylvania's fruit producers so benchmarking against a large group is not practical in the first year of this pilot program. However, after the first year, continued benchmarking should provide a greater depth of information for participating producers.

Because of the sensitivity of the information, it will only be distributed within the core group and no one will be able to decipher the identity of the farm's data. The producer will be able to use the data and analysis to better determine production and varietal mixes to make better management decisions. Individual results may be shared between participants if they so choose for the specific purpose of cultivating a more cohesive peer group.

Conclusion

The purpose of this pilot study is to develop a financial benchmark against which orchard owners can compare the financial strengths and weaknesses of their enterprises. Because profit margins can be thin, areas of inefficiency or unnecessary expense or liability should be reduced or eliminated. The analysis provided by this project will help orchard owners identify those areas most at need of improvement in comparison to their peers with similar enterprises. In subsequent years after this program has been established, additional analyses developed as the result of follow-on projects will reveal areas which have been addressed and those still in need of improvement.

Budget:

Hourly Wages	$ 900	(Program assistant at 60 hours at $15 per hour.)
Fringe Benefits	$ 72	(7.86% of assistant wages, rounded to next dollar.)
Printing	$ 144	(120 pages for 12 individuals at $0.10 per page.)
Supplies		
Misc. office and field supplies	$ 340	(Workshop binders, etc., included.)
Travel	$ 1120	(Interviews conducted by the PI and Co-PI.)
Total	**$ 2576**	

A complete budget justification statement describing each category request in additional detail may be obtained from the College of Agricultural Sciences Grants and Contracts Office.

Other Support:

No other financial support exists at this time for this project.

Appendix A: Multi-year Benchmark Average Sample

Orchard Benchmark Average

	2014	2015	2016	2017
# of records	185	202	185	81
Operation Indicators				
Total Tillable Acres*	275	295	294	265
Total Farm Income	$ 2,079,827	$ 2,249,730	$ 2,279,363	$ 2,059,253
Total Farm Expenses	$ 1,952,642	$ 2,020,302	$ 2,106,192	$ 1,850,492
Net Farm Income	$ 127,185	$ 229,428	$ 173,171	$ 208,761
EBITDA	$ 219,428	$ 315,472	$ 265,127	$ 323,014
Depreciation Expense	$ 68,004	$ 60,971	$ 64,436	$ 82,179
Interest Expense	$ 24,239	$ 25,073	$ 27,520	$ 32,074
Current Assets	$ 774,383	$ 891,206	$ 900,346	$ 889,560
Current Liabilities	$ 353,403	$ 369,158	$ 417,860	$ 436,148
Cash and Savings	$ 130,603	$ 158,666	$ 153,078	$ 110,145
Accounts Receivable	$ 297,870	$ 349,943	$ 385,972	$ 449,564
Total Assets	$ 3,778,963	$ 3,934,288	$ 4,179,357	$ 3,577,567
Total Liabilities	$ 1,051,033	$ 1,023,986	$ 1,052,976	$ 1,192,790
Net Worth	$ 2,727,930	$ 2,910,302	$ 3,126,381	$ 2,384,777
Total LT Liabilities	$ 353,938	$ 344,473	$ 364,157	$ 432,270
Total IT Liabilities	$ 343,692	$ 310,355	$ 270,958	$ 324,372
CP of LT Debt	$ 24,482	$ 22,958	$ 27,516	$ 27,118
CP of IT Debt	$ 60,953	$ 68,472	$ 69,238	$ 59,916
Net Worth %	72.2%	74.0%	74.8%	66.7%
Per Acre Measur				
Gross Farm Income per Acre	$ 7,563.01	$ 7,626.20	$ 7,752.94	$ 7,770.77
Total Expenses per Acre	$ 7,100.52	$ 6,848.48	$ 7,163.92	$ 6,982.99
Net Farm Income per Acre	$ 462.49	$ 777.72	$ 589.02	$ 787.78
Debt Service Per Acre	$ 372.89	$ 337.96	$ 342.54	$ 439.40
Total Liabilities per Acre	$ 3,821.94	$ 3,471.14	$ 3,581.55	$ 4,501.09
Working Capital per Acre	$ 1,530.84	$ 1,769.65	$ 1,641.11	$ 1,710.99
Financial Ratios				
Current Ratio	2.19	2.41	2.15	2.04
Quick Ratio	1.21	1.38	1.29	1.28
Working Capital	$ 420,980	$ 522,048	$ 482,486	$ 453,412
Working Capital as % of Sales	20.2%	23.2%	21.2%	22.0%
Debt to Asset Ratio	27.8%	26.0%	25.2%	33.3%
Expense Ratio	93.9%	89.8%	92.4%	89.9%
EBITDA %	10.6%	14.0%	11.6%	15.7%
Debt-to-EBITDA	4.79	3.25	3.97	3.69
Total LT+IT+CP Debt	$ 783,065	$ 746,258	$ 731,869	$ 843,676
Debt Service at 10-y BDT	$ 102,546	$ 99,699	$ 100,707	$ 116,442
EBITDA DCR (10 yr BDT)	2.14	3.16	2.63	2.77
ROA	4.0%	6.5%	4.8%	6.7%
ROE	4.7%	7.9%	5.5%	8.8%
Net Worth %	72.2%	74.0%	74.8%	66.7%
Debt to Income Ratio	50.5%	45.5%	46.2%	57.9%