

ASSESSING BMP COSTS



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SWREC, Agricultural and Natural Resources Program

SWFREC Foundation Meeting

April 27, 2018

UF | IFAS
UNIVERSITY of FLORIDA

Types of Budgets

Cash Flow Budget

- A summary of projected receipts and expenses for the whole farm over a given period of time (12 months).
- Used to negotiating a line of operating credit with the banker.

Whole Farm Budget

- Includes the physical and financial aspects of the farm: costs, revenues, and profitability of each enterprise that compose the overall farm business.
- It can be used to compare the profitability of several farm plans; determining income potential, debt repayment capacity and value of the farm.

Partial Budget

- Does not factor aspects of the operation that don't change.
- Measures only returns and expenses that result from an adjustment in the farm plan.
- It is often used to compare the profitability of alternatives.

Types of Budgets cont'd

Enterprise Budget

- Estimates revenues and expenses for a specific farm enterprise (or product).
- Constructed on a per-unit-of production basis for one production cycle (or growing season).
- Can be used to compare the profitability of alternative enterprises, assist in development of a marketing plan, negotiate with the sources of credit, and plan adjustments to the operation.
- It provides base information to construct the whole farm, partial and cash flow budgets.



The Importance of IFAS Enterprise Budgets

- Extension agents and regulatory agencies need a better understanding of how growers manage scarce resources:
 - Capital
 - Labor
 - Land
- Budgets are an anticipation of the future
 - budgeting helps growers plan: coordinate resources, production, and expenditures

Once established, they become a standard for monitoring what happens in the operation.

- Estimate revenues and expenses for a specific enterprise/product
- Assist in development of a marketing plan
- Negotiate with the sources of credit
- Benchmarking

Elements of Enterprise Budgets

$$\text{Revenues} - \text{Costs} = \text{Net Return}\$$$

Variable Costs

Items that occur annually and vary with different levels of production.

- Inputs: fertilizer, chemicals, seed, fuel
- Repair costs
- Hired labor
- Harvest costs: storage, hauling
- Interest on operating capital

Fixed Costs

Remain the same regardless of the level of production.

- Machinery and buildings depreciation
- Rent, taxes, insurance
- Interest on investments
- Opportunity cost: charges on all owner-supplied labor, capital, and land are opportunity costs

Enterprise Budgets

The University of Florida-IFAS Food and Resource Economics Department produces enterprise budgets for major commodities:

<http://fred.ifas.ufl.edu/extension/commodity-production-budgets/>

- Consensus budgets
- Available budgets are limited and dated:

Year	Crop
2008-09	Potatoes
	Strawberries
	Watermelons
	Green Peppers
	Sweet Corn
	Cucumbers
	Cabbage
2014-15	Tomatoes


Examples

SW Florida Tomatoes 2014/15				
Your Anticipated Yield	1,700			
	cartons	Quantity	Price	Your Cost/
Pre-Harvest Variable Costs				
Transplants	plants	4800.00	\$0.12	
Fertilizer Mixed and Lime				
Fumigant				
Crop Insurance				
Cover Crop				
Herbicide				
Insecticide and Nematicide				
Fungicide				
Tractors and Equipment				
Farm Trucks Cost (driver cost INCLUDED in overhead and manage				
General Farm Labor				
Tractor Driver Multiplier (to account for re-tooling, re-fueling and trav				
Tractor Driver Labor Expense				
Aerial Spray				
Predatory Mites				
Scouting				
Drip tube				
Plastic Mulch				
Drive Stakes				
Prune Plants				
Stakes				
Plastic String				
String and Stake Disposal				
Pull and Bundle Mulch				
Cross Ditch				
Tie Plants				
Dumpster contract				
Interest Rate on Operating Capital as a % of Operating Capital for this				
Length of Interest Bearing Season for This Crop in Months				
Interest Expense on Variable Costs per Acre	acre			\$289.27

OMB No. 0535-0218; Approval Expires 07/31/2018

2016 AGRICULTURAL RESOURCE MANAGEMENT SURVEY

Costs and Returns Report - Version 1
Project Code: 904
(09/07/2016)



Green Peppers: Estimated production costs in the Southwest Florida area 2008-2009.

Category	Average Per	
	Acres	Bushels
Yield	1,000	
OPERATING COSTS		
Transplants	2,000.00	
Fertilizer	1,419.30	
Fumigant	736.00	
Fungicide	399.96	
Herbicide	26.96	
Insecticide	559.59	
General Farm Labor (includes tractor driver wages)	503.23	
Machinery Variable Cost	1,970.54	
MISCELLANEOUS		
Plastic Mulch	330.00	
Plastic Disposal	181.50	
Scouting	35.00	
Level Land	145.00	
Farm Vehicles	39.00	
Drive Stakes	83.49	
Stakes	120.00	
Tie Plants	36.30	
Interest on Operating Capital	535.20	
Total Operating Cost	9,121.07	
FIXED COSTS		
Land Rent	500.00	
Machinery Fixed Cost	253.29	
Farm Management and Overhead	4,202.62	
Total Fixed Cost	4,955.91	
TOTAL PREHARVEST COST	14,076.98	14.08
HARVEST AND MARKETING COSTS		
Sell	500.00	0.50
Pepper Carton	950.00	0.95
Pick, Pack and Haul	3,000.00	3.00
Total Harvest and Marketing Cost	4,450.00	4.45
TOTAL COST	18,526.98	18.53

Please make corrections to label name, address, and ZIP code, if needed.


Responses will be kept confidential and will not be disclosed in identifiable form to anyone other than those who have taken an oath and is subject to a jail term, a fine, or both if he or she willfully discloses ANY identifiable information. You may skip any question(s) you prefer not to answer.

USDA may not conduct or sponsor, and a person is not required to respond to, a collection of information unless it displays a unique Office Management Information System (OMIS) control number for this information collection is 0535-0218. The time required to complete this survey response, including the time for reviewing instructions, searching existing data sources, gathering and reviewing the collection of information.

Identify the other person(s) involved.]

Partner 2				
Partner Name				
Address				
Phone Number	City	State	Zip	Phone Number
Partner 4				
Partner Name				
Address				
Phone Number	City	State	Zip	Phone Number

Office Use Only						
Duplication Adjustor	Partner Stratum				Office Use Only	Number of Supplements
0022	0022	0023	0027	0028	0009	0002

21816012 

Your Anticipated Yield	1,700	
	cartons	Quant
Pre-Harvest Variable Costs		
Transplants	plants	4800
Fertilizer Mixed and Lime	acre	1
Fumigant	acre	
Crop Insurance	acre	1
Cover Crop		
Herbicide	acre	
Insecticide and Nematicide	acre	
Fungicide	acre	
Tractors and Equipment	acre	
Farm Trucks Cost (driver cost INCLUDED in overhead and management expense)	acre	
General Farm Labor		1
Tractor Driver Multiplier (to account for re-tooling, re-fueling and travel time.)	acre	
Tractor Driver Labor Expense	acre	
Aerial Spray	acre	
Predatory Mites	acre	
Scouting	acre	1
Drip tube	acre	1
Plastic Mulch	acre	1
Drive Stakes	acre	1
Prune Plants	acre	
Stakes	acre	
Plastic String	acre	1
String and Stake Disposal	acre	1
Pull and Bundle Mulch	acre	1
Cross Ditch	acre	
Tie Plants	acre	
Dumpster contract	acre	1
	acre	
	acre	
	acre	
	acre	
Interest Rate on Operating Capital as a % of Operating Capital for this Crop	acre	
Length of Interest Bearing Season for This Crop in Months	acre	
Interest Expense on Variable Costs per Acre	acre	

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National Agricultural Statistics Service

ECONOMIC RESEARCH SERVICE

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Please make corrections to label name, address, and ZIP code, if needed.

The information you provide will be used for statistical purposes only. In accordance with the Confidential Information Protection provisions of Title V, Subtitle A, Public Law 107&347 and other applicable Federal laws, your responses will be kept confidential and will not be disclosed in identifiable form to anyone other than employees or agents. By law, every employee and agent has taken an oath and is subject to a jail term, a fine, or both if he or she willfully discloses ANY identifiable information about you or your operation. Response is voluntary. You may skip any question(s) you prefer not to answer.

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[If this operation is a partnership, please identify the other person(s) involved.]

Partner 1				Partner 2			
Partner Name				Partner Name			
Address				Address			
City	State	Zip	Phone Number	City	State	Zip	Phone Number
Partner 3				Partner 4			
Partner Name				Partner Name			
Address				Address			
City	State	Zip	Phone Number	City	State	Zip	Phone Number

Office Use Only

Screening Box	Beginning Time (Military)		Total Points	R. Unit	Duplication Adjustor	Partner Stratum				Office Use Only	Number of Supplements
	Hours	Minutes				0022	0023	0027	0028		
0006	0004		0020	0021	0022					0009	0002



Challenges with Generating Crop Budgets

- Poor record keeping
- A lot of information is needed
- Various units of measurement
- Quantifying opportunity costs
- Economies of scale



None of these budgets include BMPs

How do growers make decisions about ...

- using new practices
- purchasing new equipment
- changing infrastructure

Approach 1-Stakeholder Input

Convene stakeholders to define the priorities and challenges in incorporating BMP costs into enterprise budgets

- Agency specialists
- Extension agents
- FRE faculty
- Growers

Outcome

15 Participants

- FDACS
- Florida Farm Bureau Federation
- Lake County Government
- USDA
- UF-IFAS Extension



Approach 2 - Education

Budget training and making extension agents sensitive to the challenges growers face when choosing BMPs

- Extension BMP working groups
- Including BMP discussions on Budget ISTs



Outcomes

87%—Advanced understanding of crop budgets

80%—Advanced thinking about how crop budgets can be used to assess BMP costs

93%—Identified areas of mutual interest regarding crop budget incorporation on BMP implementation costs

87%—Would like the topic further developed

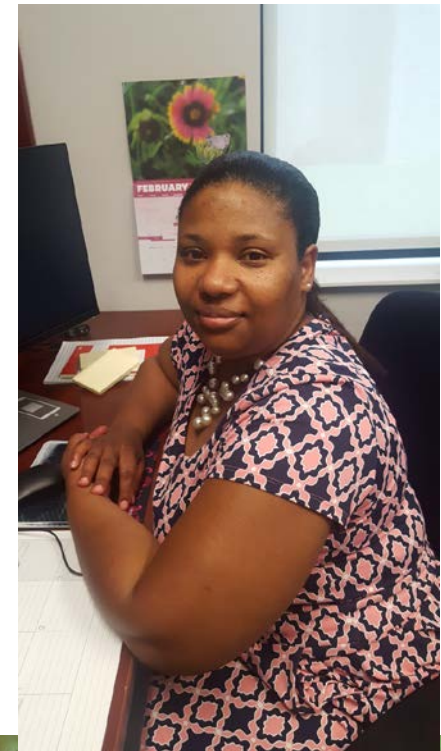


Approach 3 – Budget Generation

- Grower and industry expert questionnaires
- IFAS faculty
 - Watermelons
 - Peppers
 - Tomato
 - Potato



Shelly Goodwin



Approach 4-Grower BMP Surveys

Growers provide a public benefit by implementing BMPs

Several questions remain regarding the direct cost of implementing BMPs:

- How and if BMPs reduce operating costs, affect yields, and impact producers' bottom line
- Do cost-share programs provide enough incentives to increase BMP use
- Where should BMPs be implemented
- How do we communicate the financial benefits of BMP use to growers
- Who should be paying for BMP implementation

These are the first steps in capturing the cost of BMP adoption

Survey link: gatorsurvey.com

Access Code: **JFKSGG**

Approach 4-Grower BMP Surveys

Target BMPs

- Controlled release fertilizer
- Cover crops
- Calibrate fertilizer equipment
- Irrigation scheduling tools

Survey link: gatorsurvey.com
Access Code: **JFKSGG**

The survey asks

- Field/block location
- Crops grown
- The affect on production costs
- The affect on yields



Thank you!

Questions???

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Access Code: **JFKSGG**