Fruits and Orchards

Value Added and Short Term Financial Decision Making

By: Diego Cuadra, Agrifood-Finance Fellow (AFF) with the Kohl Centre at Virginia Tech

Purpose and Disclaimer

This tool was developed by a Kohl Centre Agri-Food Finance Fellow as part of a series of agribusiness workshops on value-added enterprises and product differentiation in Virginia. It is intended to illustrate the use of financial planning tools—including partial budgets, enterprise budgets, and income statements—in strategic decision-making.

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Direct Marketing in Orchards

- Selling directly to consumers without middlemen. Which has the potential to increase profit margins and allow for better price control and brand exposure.

Examples of Direct Marketing in Orchards:

- Farmers markets
- Roadside stands
- Community Supported Agriculture (CSA) boxes
- Online sales & delivery
- U-pick operations

Direct Marketing Pros & Cons

Pros:

- Potential for higher profit margins compared to wholesale.
- Builds strong community connections & brand loyalty.
- Allows for quick feedback from customers.

Cons:

- Requires more time in customer service and marketing
- Seasonal demand can cause fluctuations
- Marketing and packaging costs are higher

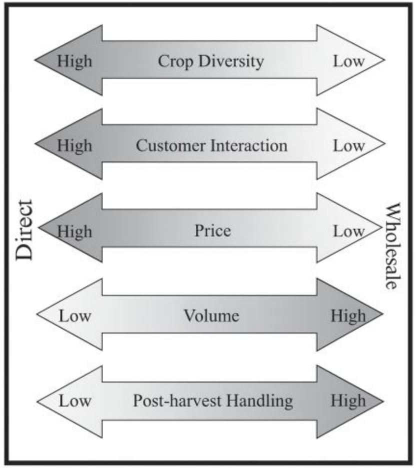


Figure 1: Generalizations about Wholesale and Direct Marketing Channels.

Image source: Thea Rittenhouse, “Direct Marketing,” ATTRA Sustainable Agriculture, May 2016

Value Added Products

- Products created by transforming raw orchard produce into items with higher value and longer shelf life.

Examples in Orchards:

- Jams, jellies, and preserves
- Baked goods (pies, peach cobblers)
- Fruit juices and ciders
- Ice cream & frozen fruit products
- Dried fruit or fruit leather
- Specialty gift baskets

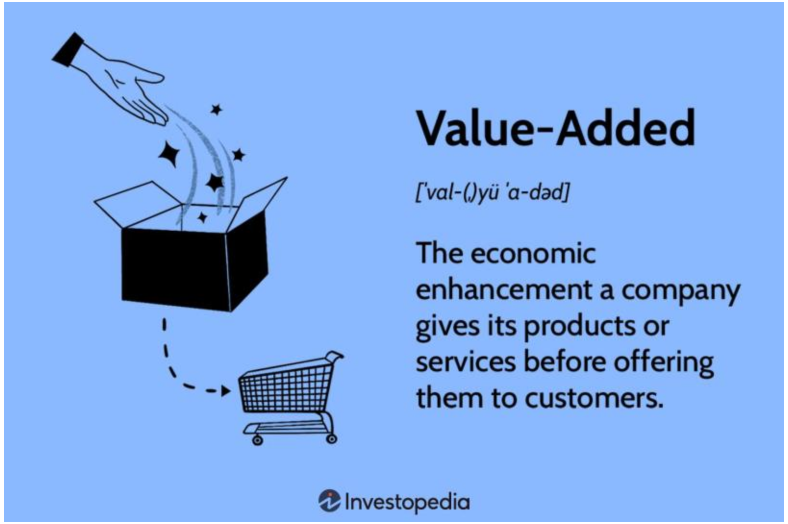


Image source: Adam Hayes, "Understanding Value-Added Products," Investopedia, Sept. 25, 2025

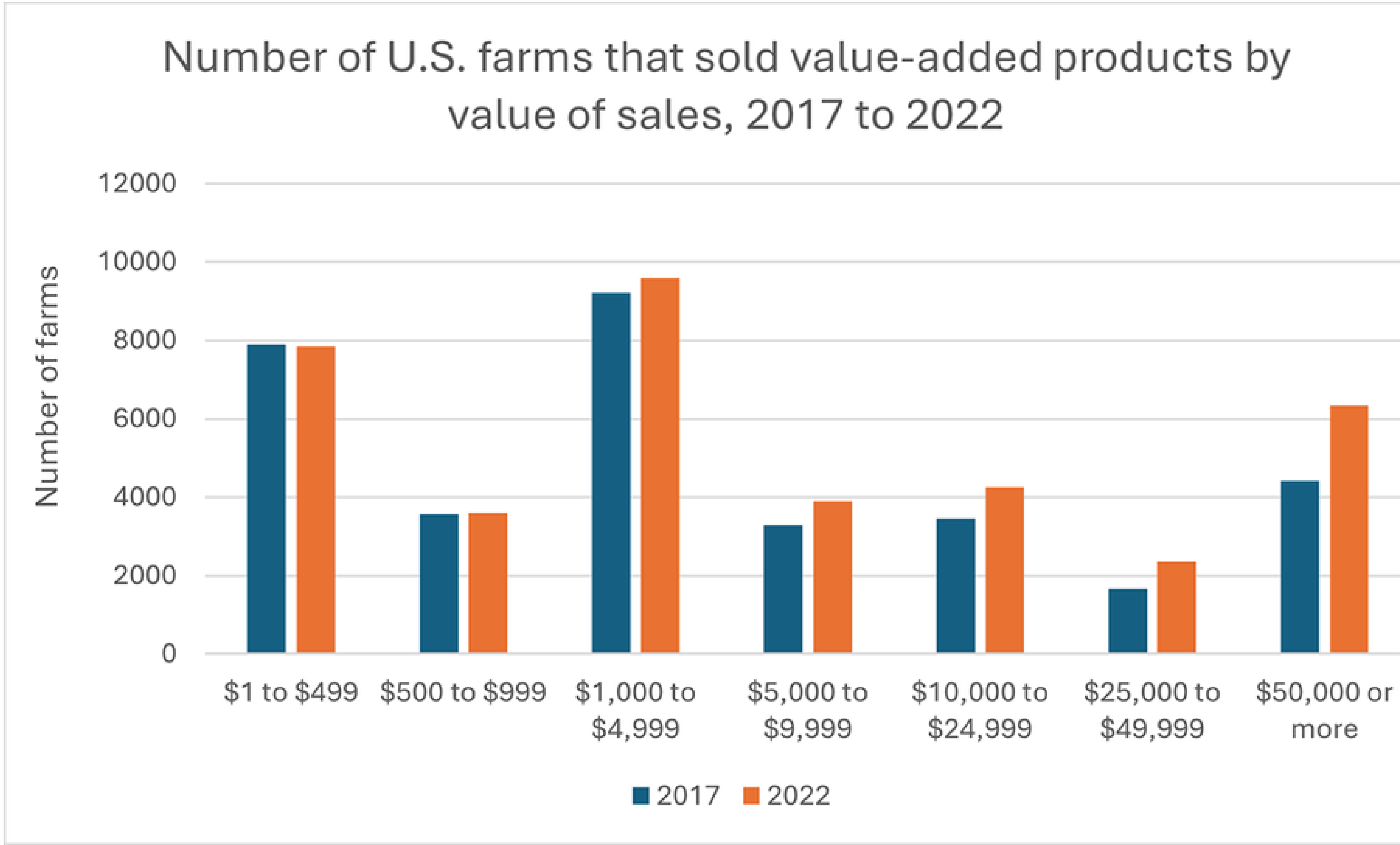
Value added Pros & Cons

Pros

- Extends product shelf life
- Potential to increase profit margins
- Attracts more diverse customers
- Supports agritourism and farm branding

Cons:

- Requires licenses and compliance with food safety regulations
- Additional equipment and labor costs
- Marketing and distribution strategy



Graph by PennState Extension

AgriTourism

- When farmers invite the public to visit and participate in farming activities. It blends agriculture and tourism while giving additional income stream to farmers.

Examples of agritourism:

- U-Pick Operations
- Farm Store
- Harvest Festivals
- Orchards Picnics
- Farm Tours

AgriTourism Pros & Cons

Pros

- Diversified Income
- Potential increases profit margins on products
- Community and brand building

Cons:

- Liabilities and managing risks with constant flow of customers.
- Weather dependent
- (Potentially) high Initial investment costs.
- Maintenance costs considerations

Image source: Martín Tempone, "What Is Agritourism," Mize, Sept. 26, 2025

Impact of AgriTourism

- Farmers often operate on tight margins, as a result it has become increasingly difficult for many farmers to be profitable from just the production of commodities.

- Additional income streams that derive from agritourism are typically appealing to the farmer.

- Specially in Virginia the Agritourism sector has seen significant growth due to increasing consumer interest in local food systems and outdoor/farm experiences.

...economic impact from tourists is estimated at $1.0B and is important economically because it represents the 'fresh money' that likely would not have entered an area's economy if not for the existence of the agritourism venue

Approximate number of Virginia agritourism venues through time.

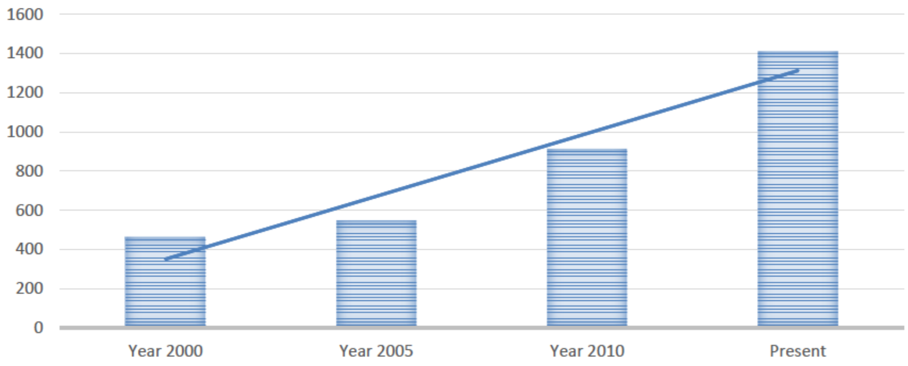


Image Source: Virginia Tech & Virginia Cooperative Extension (Sept 2023)

How Agritourism is Saving American Farms

August 2, 2023 Katherine Follansbee

Agritourism: A Promising (And Fun!) Avenue for Economic Growth

3 JUN 2024 News, Tourism

Agritourism can boost farmers' revenue, Virginia Tech study finds

11 FEB 2015 4 minute read

Agritourism Allows Farms To Diversify and Has Potential Benefits for Rural Communities

by Christine Whitt, Sarah A. Low and Anders Van Sandt

11/4/2019

FARM BUSINESS FARM OPERATIONS FARM BUSINESS PLANNING MANAGEMENT COMMENTARY

INDIANA PrairieFarmer

Consider agritourism for farm growth

An Indiana family successfully expanded their farming operation with an agritourism business, positively impacting themselves and the community.

December 12, 2024 5 Min Read

Home

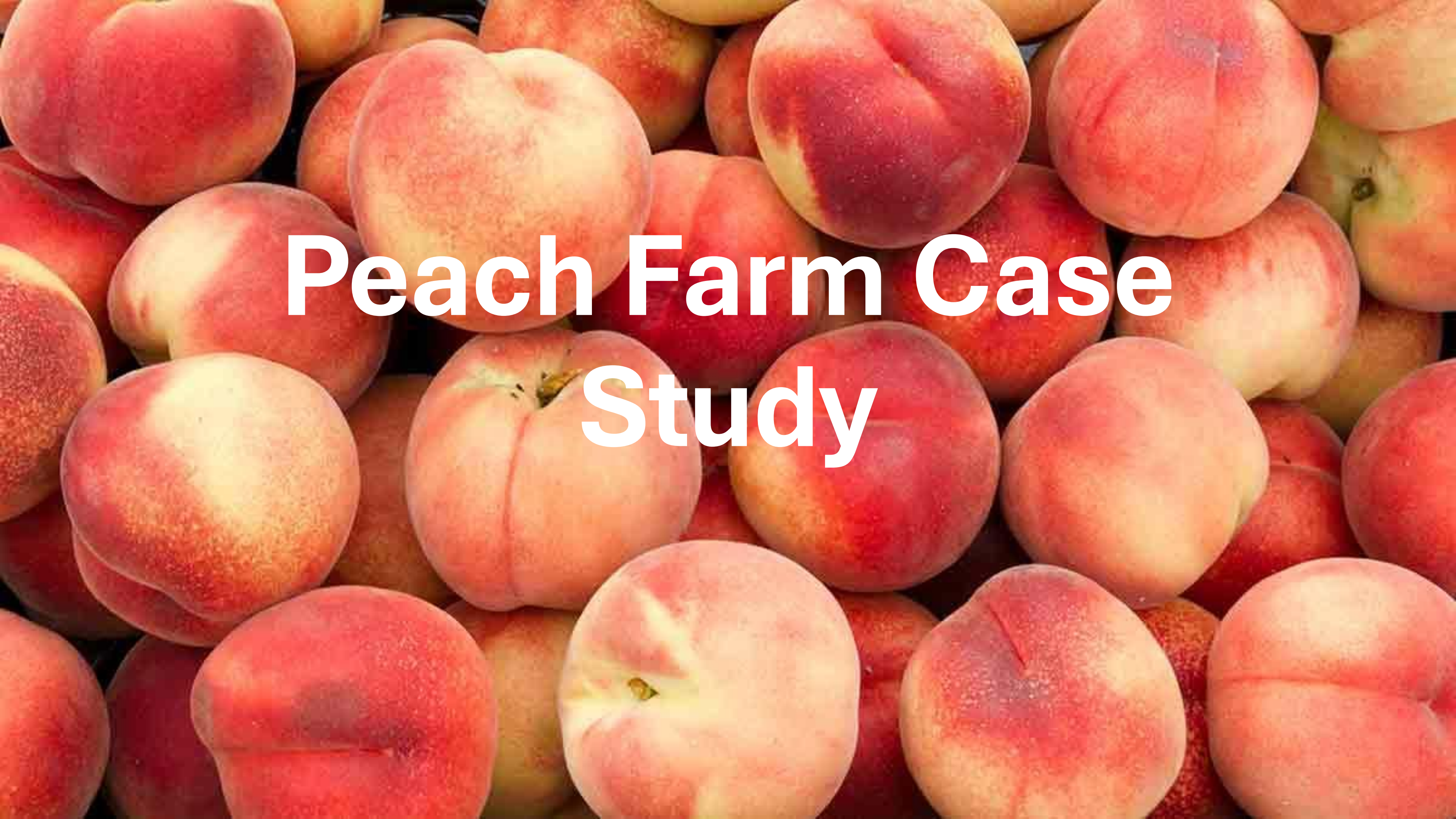
Agritourism Provides Economic Benefits

Updated October 16, 2024

Peggy Schlechter
SDSU Extension Community Vitality Program Director

Why Agricultural Tourism Is Booming Now

Martín Tempone / 26.06.2025 / Last updated on 26.09.2025

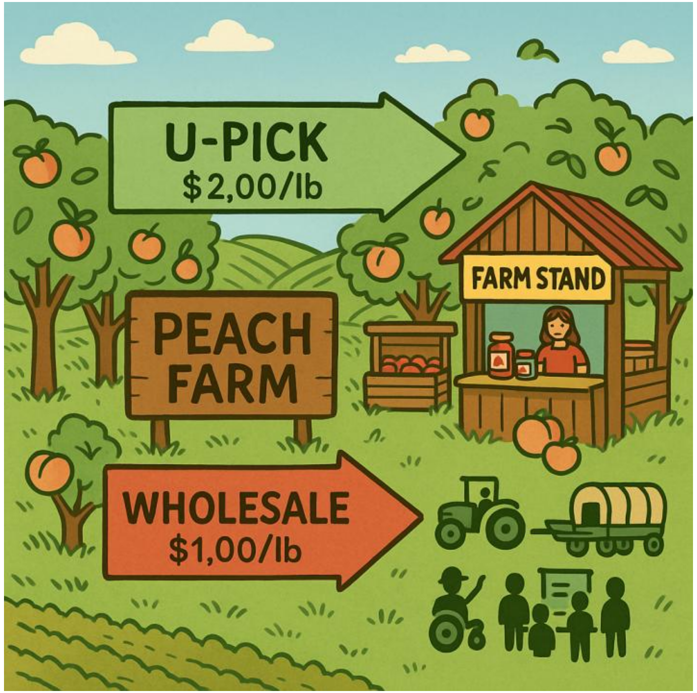

Peach Farm Case Study

Short Term Decision Making

After several steady seasons of managing a family run peach orchard. We're exploring short term profit growth through a small scale U-pick operation.

- U-Pick projected to account for 18% of total peach sales.
- Customers pick their own peaches at $2.00/lb
- Current wholesale price $1.00/lb

This analysis evaluates the financial impact of adding U-Pick to the orchards operation



Wholesale (Only)

VS

Wholesale + U-Pick

What is a Partial Budget?

- Financial tool for analyzing the change of profit in the short term due to a change in operation.
- Helps make data driven decision when considering changes in operation.
- Are you better of than before?
- Only considers things that change.

Peach Farm Assumptions

- 20 acre peach farm
- 6,500/lb yield per acre
- $1.00/lb peaches sold at wholesale price
- $2.00/lb peaches sold at U-Pick
- 1 worker x $16.00/hour x 8 hrs/day x 5 days/week x 26 weeks/year = $ 16,400
- Additional agritourism cost = $15,000

Partial Budget Format:

Good Side:

- Added Revenues
- Reduced Expenses
- A. Total Good Side

Bad Side:

- Reduced Revenues
- Added Expenses
- B. Total Bad Side

Change in Annual Profit = A - B = ______

Partial Budget Format:

Good Side:

- Added Revenues

  Peaches not being sold to wholesale = $46,800

  6,500 x 20 = 130,000 x 0.18 =23,400 x $2.00 = 46,800

  Tours, Rides, Workshops = $20,000

  Seasonal events 5,000 + Entry tickets 5,000 + Tours, rides, workshops 10,000 = 20,000

- Reduced Expenses

  None

- **B. Total Good Side = $66,800**

Partial Budget Format:

Bad Side:

- Reduced Revenues

  1: Peaches not being sold to wholesale = $23,400

  130,000 x 0.18 = 23,400

- Added Expenses

  2: Agritourism Cost = $15,000

  3: Additional Labor 1 worker x $16.00/hour x 8 hrs/day x 5 days/week x 26 weeks/year = $ 16,400

- **B. Total Bad Side = $54,800**

Partial Budget Format:

Good Side:

- Added Revenues

  U-Pick Revenue = $46,800

  Tours, rides, workshops = $20,000

- Reduced Expenses

  None

- A. Total Good Side = $66,800

Bad Side:

- Reduced Revenues

  Peaches not being sold to wholesale = $23,400

- Added Expenses

  Agritourism Cost = $15,000

  Additional Labor = $16,400

- B. Total Bad Side = $54,800

Change in Annual Profit = $66,800 - $54,800 = $13,000

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Long Term Financial Decision Making

By: Alex Brandon, Agrifood-Finance Fellow (AFF) with the Kohl Centre at Virginia Tech

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Not all decisions are in the short term…

Case Study For Long Term Decision Making

After 10 successful years managing the family run peach orchard the focus now changes to sustained growth and diversification over the next 5 years.

- Develop a U-Pick operation (18% of total peach sales)
- Customers pay $2.00/lb vs $1.00/lb wholesale

The long term plan analyzes revenue growth and business diversification opportunities.

5 Year Case Study - Budget Statement

- Budget Statement (Short Term)
  - Income: Projected earnings for a specific period of time
  - Expenses: Estimated cost of goods sold, operating expenses, and taxes/interest
  - Profit/Loss: Projected Net Income
  - Blue Represents Wholesale Sales without Value Added Products
  - Orange Represents the addition of U-Pick and Agritourism

Only Wholesale	With Diversified Model

Budget Statement - Revenue

REVENUE	Annual $	Notes	Annual $	Notes
U-pick revenue	$ -		$ 46,800	18% of total sales
Agritourism (tickets/rides/tours)	$ -		$ 20,000	
Wholesale fruit sales	$ 130,000		$ 106,600	
Other operating income	$ -		-	
Total Revenue	**$ 130,000**		**$ 173,400**	

Budget Statement - Cost of Goods Sold

COST OF GOODS SOLD (COGS)				**Direct production & harvest costs**		
Direct Cost for Wholesale Production						
Harvest labor (seasonal pickers)	$	19,200	6 workers x 10hrs/acre	$	15,744	82% of base cost
Packing & packaging supplies (Refrigerated)	$	26,000	Total lbs./2,000lbs per pallet 25 pallets per tr	$	21,320	lbs./per pallet (25/truckload)
Field inputs (fertilizer, sprays)	$	2,600	$150 per acre	$	2,600	$150 per acre
Orchard supplies (bins, lugs, PPE)	$	2,600	2% of TR	$	2,600	2% of TR
Direct cost for Value Added Production						
Harvest labor (seasonal pickers)				$	16,640	1 worker ($16/hr) for26 weeks
Packing & packaging supplies (Refrigerated)				$	7,020	15% of U-Pick Revenue
Additional supplies needed for U-Pick				$	4,680	10% of U-Pick Revenue
Additional supplies needed for Farm Tours				$	2,000	10% of Farm Store Revenue
Total COGS	**$**	**50,400**		**$**	**72,604**	

Budget Statement - Gross Profit

- Gross Profit is equal to Total Revenue - Cost of Goods Sold

	$130,000 - $50,400=	$173,400-$72,604=
GROSS PROFIT	**$ 79,600**	**$ 100,796**

Budget Statement-Operating Expenses

OPERATING EXPENSES				Overhead & non-harvest costs	
Salaries & wages (non-harvest)	$	40,000		$ 40,000	
Payroll taxes	$	2,000		$ 2,000	
Repairs & maintenance	$	6,000	Average annual upkeep of trucks/machinery	$ 6,900	15% more for added equipment
Fuel & equipment operating	$	5,000	-	$ 5,750	15% more for added equipment
Insurance (liability, crop, auto)	$	5,000		$ 10,000	Added liability new customers
Marketing & website	$	2,000		$ 3,000	Average social media ad cost
Packaging design & labels	$	5,000		$ 4,100	
Property taxes	$	4,200	Total farm assessed value /10 * $.70 tax rate	$ 4,900	Farm value /10 * $.70 tax rate
Professional fees & accounting	$	5,000		$ 5,000	
Licenses & permits	$	3,000		$ 2,000	USDA inspections + Permit
Office & admin supplies	$	500		$ 2,000	
Waste disposal & sanitation	-			$ 3,000	3 month rentals of Porta-johns
Total OPEX	**$**	**77,700**		**$ 88,650**	

Budget Statement- Operating Income

- Operating Income is equal to Gross Profit - Operating Expenses

$79,600-$77,700=

$100,796-$88,650=

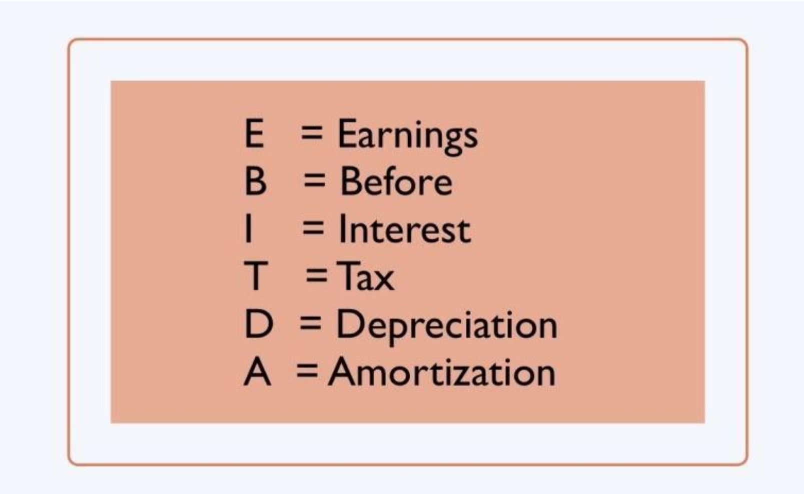
OPERATING INCOME (EBIT)	**$ 1,900**	**$ 12,146**

What is the 5 year plan?

- Long term strategy to see if initial investments are worth it.
- Allows business owners to assume different income streams like U-Pick, Farm Store, and agritourism.
- Identify opportunities and risks that may affect the business over a 5 year period.
- This can help attract potential lenders and external investors.

5 Year Breakdown

- Revenue
- Direct Costs of Farming
- Value Added Product Costs
- Net Income
- Earnings Before Interest, Taxes, Depreciation, and Amortization (EBITDA)
    - A measure of a company's financial performance th
      focuses on its core, day-to-day business operations



5 Year Revenue

Numbers of acres	20	20	20	20	20	20
Bushels per Acre	6,500	6,500	6,500	6,500	6,500	6,500
Total lbs of peaches	130,000	130,000	130,000	130,000	130,000	130,000
Price ($/lb of Peaches)	$1.00	$1.00	$1.00	$1.00	$1.00	$1.00
Total Revenue ($)	**$130,000**	**$130,000**	**$130,000**	**$130,000**	**$130,000**	**$130,000**
Growth (%)		*0%*	*0%*	*0%*	*0%*	*0%*

5 Year Value Added Revenue

Numbers of acres	20	20	20	20	20	20
Bushels per Acre	6,500	6,500	6,500	6,500	6,500	6,500
Total lbs of peaches	130,000	130,000	130,000	130,000	130,000	130,000
Price ($/lb of Peaches U-Pick)	$2.00	$2.00	$2.00	$2.00	$2.00	$2.00
Price ($/lb of Peaches Wholesale)	$1.00	$1.00	$1.00	$1.00	$1.00	$1.00
Total Revenue ($)	**$ 173,400.00**	**$ 173,400.00**	**$ 173,400.00**	**$ 173,400.00**	**$ 173,400.00**	**$ 173,400.00**
Growth (%)	*0%*	*0%*	*0%*	*0%*	*0%*	*0%*

5 Year Direct Costs

Direct Cost of Farming (No added products)						
Labor	$19,200	$19,200	$19,200	$19,200	$19,200	$19,200
Field inputs	$2,600	$2,600	$2,600	$2,600	$2,600	$2,600
Fertilizer,sprays and irrigation	$ 2,600.00	$ 2,600.00	$ 2,600.00	$ 2,600.00	$ 2,600.00	$ 2,600.00
Packaging and Transportation	$ 26,000.00	$ 26,000.00	$ 26,000.00	$ 26,000.00	$ 26,000.00	$ 26,000.00
Total COGS		**$50,400**	**$50,400**	**$50,400**	**$50,400**	**$50,400**
% of Sales		*-39%*	*-39%*	*-39%*	*-39%*	*-39%*
Gross Profit		*$79,600*	*$79,600*	*$79,600*	*$79,600*	*$79,600*

5 Year Value Added Costs

Direct Cost of Farming						
Labor	$15,744	$15,744	$15,744	$15,744	$15,744	$15,744
Field Inputs	$2,600	$2,600	$2,600	$2,600	$2,600	$2,600
Fertilizer,sprays and irrigation	$ 2,600.00	$ 2,600.00	$ 2,600.00	$ 2,600.00	$ 2,600.00	$ 2,600.00
Packaging and Transportation	$ 21,320.00	$ 21,320.00	$ 21,320.00	$ 21,320.00	$ 21,320.00	$ 21,320.00
Value Added Products Cost						
Harvest labor (seasonal pickers)	$16,640	$16,640	$16,640	$16,640	$16,640	$16,640
Packing & packaging supplies (Refrigerated)	$7,020	$7,020	$7,020	$7,020	$7,020	$7,020
Additional supplies needed for U-Pick	$4,680	$4,680	$4,680	$4,680	$4,680	$4,680
Additional supplies needed for Farm Tours	$2,000	$2,000	$2,000	$2,000	$2,000	$2,000
Total COGS	**$72,604**	**$72,604**	**$72,604**	**$72,604**	**$72,604**	**$72,604**
% of Sales		*-42%*	*-42%*	*-42%*	*-42%*	*-42%*
Gross Profit	**$ 100,796.00**	**$ 100,796.00**	**$ 100,796.00**	**$ 100,796.00**	**$ 100,796.00**	**$ 100,796.00**

5 Year Operating Expenses

Operating Expenses						
Salaries & wages (non-harvest)	$ 40,000.00	$ 40,000.00	$ 40,000.00	$ 40,000.00	$ 40,000.00	$ 40,000.00
Payroll taxes	$ 2,000.00	$ 2,000.00	$ 2,000.00	$ 2,000.00	$ 2,000.00	$ 2,000.00
Repairs & maintenance	$ 6,000.00	$ 6,000.00	$ 6,000.00	$ 6,000.00	$ 6,000.00	$ 6,000.00
Fuel & equipment operating	$ 5,000.00	$ 5,000.00	$ 5,000.00	$ 5,000.00	$ 5,000.00	$ 5,000.00
Insurance (liability, crop, auto)	$ 5,000.00	$ 5,000.00	$ 5,000.00	$ 5,000.00	$ 5,000.00	$ 5,000.00
Marketing & website	$ 2,000.00	$ 2,000.00	$ 2,000.00	$ 2,000.00	$ 2,000.00	$ 2,000.00
Packaging design & labels	$ 5,000.00	$ 5,000.00	$ 5,000.00	$ 5,000.00	$ 5,000.00	$ 5,000.00
Property taxes	$ 4,200.00	$ 4,200.00	$ 4,200.00	$ 4,200.00	$ 4,200.00	$ 4,200.00
Professional fees & accounting	$ 5,000.00	$ 5,000.00	$ 5,000.00	$ 5,000.00	$ 5,000.00	$ 5,000.00
Licenses & permits	$ 3,000.00	$ 3,000.00	$ 3,000.00	$ 3,000.00	$ 3,000.00	$ 3,000.00
Office & admin supplies	$ 500.00	$ 500.00	$ 500.00	$ 500.00	$ 500.00	$ 500.00
Waste disposal & sanitation	-	-	-	-	-	-
Total Operating Expenses	**$ 77,700.00**	**$ 77,700.00**	**$ 77,700.00**	**$ 77,700.00**	**$ 77,700.00**	**$ 77,700.00**
Operating Income	***$1,900***	***$1,900***	***$1,900***	***$1,900***	***$1,900***	***$1,900***

5 Year Value Added Operating Expenses

Operating Expenses												
Salaries & wages (non-harvest)	$	40,000	$	40,000	$	40,000	$	40,000	$	40,000	$	40,000
Payroll taxes	$	2,000	$	2,000	$	2,000	$	2,000	$	2,000	$	2,000
Repairs & maintenance	$	6,900	$	6,900	$	6,900	$	6,900	$	6,900	$	6,900
Fuel & equipment operating	$	5,750	$	5,750	$	5,750	$	5,750	$	5,750	$	5,750
Insurance (liability, crop, auto)	$	10,000	$	10,000	$	10,000	$	10,000	$	10,000	$	10,000
Marketing & website	$	3,000	$	3,000	$	3,000	$	3,000	$	3,000	$	3,000
Packaging design & labels	$	4,100	$	4,100	$	4,100	$	4,100	$	4,100	$	4,100
Property taxes	$	4,900	$	4,900	$	4,900	$	4,900	$	4,900	$	4,900
Professional fees & accounting	$	5,000	$	5,000	$	5,000	$	5,000	$	5,000	$	5,000
Licenses & permits	$	2,000	$	2,000	$	2,000	$	2,000	$	2,000	$	2,000
Office & admin supplies	$	2,000	$	2,000	$	2,000	$	2,000	$	2,000	$	2,000
Waste disposal & sanitation	$	3,000	$	3,000	$	3,000	$	3,000	$	3,000	$	3,000
Operating Expenses	**$**	**88,650**	**$**	**88,650**	**$**	**88,650**	**$**	**88,650**	**$**	**88,650**	**$**	**88,650**
Operating Income	**$**	**12,146**	**$**	**12,146**	**$**	**12,146**	**$**	**12,146**	**$**	**12,146**	**$**	**12,146**

Net Income Without Value Added Products

Interest	$0	$0	$0	$0	$0
Pre-tax income	$ 1,900.00	$ 1,900.00	$ 1,900.00	$ 1,900.00	$ 1,900.00
Taxes (30% of pre-tax income)	($570)	($570)	($570)	($570)	($570)
Net Income	**$ 1,330.00**	**$ 1,330.00**	**$ 1,330.00**	**$ 1,330.00**	**$ 1,330.00**

Net Income With Value Added Products

Interest	$0	$0	$0	$0	$0
Pre-tax income	$ 12,146.00	$ 12,146.00	$ 12,146.00	$ 12,146.00	$ 12,146.00
Taxes (30% of pre-tax income)	($3,644)	($3,644)	($3,644)	($3,644)	($3,644)
Net Income	**$ 8,502.20**	**$ 8,502.20**	**$ 8,502.20**	**$ 8,502.20**	**$ 8,502.20**

Conclusion

- Depends on assumptions, assets already owned, and depreciation over time
- Each farm will vary depending on size and product being sold
- Value-Added Products can have large upfront costs
- Potentially starts to see an increase in profit in five years

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