Partial Budgeting Tool/Evaluating Tradeoffs

Drought Advisors February 11, 2022

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AGRICULTURE AND BUSINESS MANAGEMENT
COLORADO STATE UNIVERSITY EXTENSION

What is a Partial Budget?

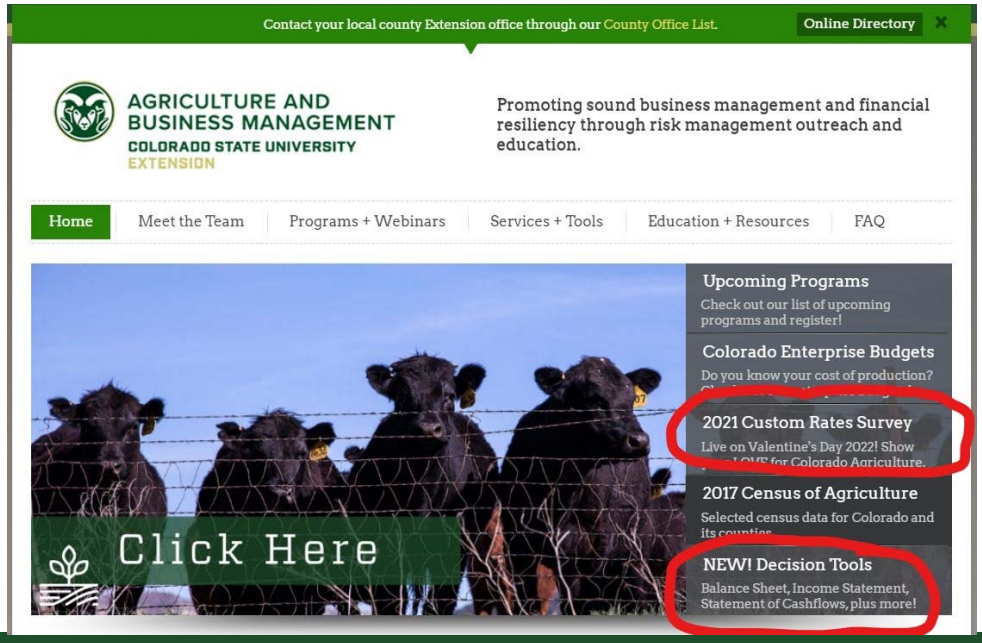
- ***"Partial budgeting is a planning and decision-making framework used to compare the costs and benefits of alternatives faced by a farm/ranch business."***

- It focuses only on the changes in income and expenses that would result from implementing a specific alternative.

Developing Partial Budgets is Intuitive

Partial Budget Example 1
Adopting Strip Tillage Technology

Resources Needed



Partial Budget Tool

PARTIAL BUDGETING TOOL

Jeffrey E. Tranel, Jenny Beiermann, and Brent Young
https://abm.extension.colostate.edu
November 2021

Producer's Name	Date	Proposed Change	Acres
	12/12/2021		0

Increases to Income

	Per Acre	Whole Farm
Increases in Yield	0.00	0.00	0
Net Sale Price ($/unit)	0.00		
Other		0.00	0
Other		0.00	0
Total Increases to Income		**0.00**	**0**

Added Costs

	Per Acre	Whole Farm
	0.00	0
	0.00	0
	0.00	0
	0.00	0
Total Increases to Costs	**0.00**	**0**

Reduced Costs

	0.00	0
	0.00	0
	0.00	0
	0.00	0
Total Decreases to Costs	**0.00**	**0**

Reduced Income

Decreases in Yield		0.00	0
Net Sale Price ($/unit)			
Other		0.00	0
Other		0.00	0
Total Decreases to Income		**0.00**	**0**

Net Increase/Decrease to Income:	$0.00	per acre	$0	per farm

Enter into each appropriate cell the (1) producer's name, (2) date on which the analysis is being conducted, (3) proposed change, and (4) the total number of acres for which the change will impact.

Increases to Income: Enter (1) the number of units (tons, bushels, cwt, sacks, bales, etc.) related to yield increases or yield "saved"; (2) the net sale price or fair market value per unit; and (3) any other causes and income per acre.

Reduced Costs: Enter (1) a brief description of any item or activity and (2) cost per acre for which the proposed change will reduce costs.

Added Costs: Enter (1) a brief description of any item or activity and (2) cost per acre for which the proposed change will increase costs.

Reduced Income: Enter (1) the number of units (tons, bushels, cwt, sacks, bales, etc.) related to yield decreases; (2) the net sale price or fair market value per unite; and (3) any other causes and dollar amount per acre.

A net change to income having a white font on a green background, indicates the proposed change ***is financially viable.***

A net change to income having a white font on a red background, indicates the proposed change ***is NOT financially viable.***

Custom Rates Guide

Custom Rates for Colorado Farms & Ranches in 2020

Jenny Beiermann, Jeffrey E. Tranel, and R. Brent Young[A]

May 2021

Colorado State University Extension annually conducts a survey of custom rates charged for various crop and livestock operations and lease arrangements in Colorado. Data were collected from agricultural producers, landowners and managers, lenders, agricultural consultants, machine operators, and Extension agents. Electronic data collection methods were used for this year's report. The results from more than 270 respondents were combine with anecdotal data seem unusually low or high which is due to very few respondents and/or the operation is not widely performed. The information in this report should be used only as a guide.

In cases where data were not available, or the sample size was too small to report, results from the 2019 custom rates survey are reported. These numbers are denoted by **bold text** throughout the report.

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Producer's Name	Date	Proposed Change	Acres
Sample Farm	2/11/2022	Convert to strip till	232

Increases to Income

	Per Acre		Whole Farm
Increases in Yield	0.00	0.00	0
Net Sale Price ($/unit)	0.00		
Other		0.00	0
Other		0.00	0
Total Increases to Income		**0.00**	**0**

Added Costs

	Per Acre	Whole Farm
Strip Till	16.00	3,712
	0.00	0
	0.00	0
	0.00	0
Total Increases to Costs	**16.00**	**3,712**

Reduced Costs

Disc	14.50	3,364
Surface Chisel x2	28.00	6,496
Cultivating (field) x2	23.00	5,336
	0.00	0
Total Decreases to Costs	**65.50**	**15,196**

Reduced Income

Decreases in Yield		0.00	0
Net Sale Price ($/unit)			
Other		0.00	0
Other		0.00	0
Total Decreases to Income		**0.00**	**0**

Net Increase/Decrease to Income:	$49.50	*per acre*	$11,484	*per farm*

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Partial Budget Example 2
Alfalfa vs Dry Beans

Additional Resources Enterprise Budgets

Western - Alfalfa (Furrow Irrigated)

Estimated Production Costs & Returns

GROSS RECIPTS FROM PRODUCTION						
GROSS RECIPTS	UNIT	PRICE	YIELD	PER ACRE	PER TON	YOUR FARM
Alfalfa Hay	ton	$216.00	3.7	$799	$216.00	
Other						
Total Receipts				**$799**		**$0**

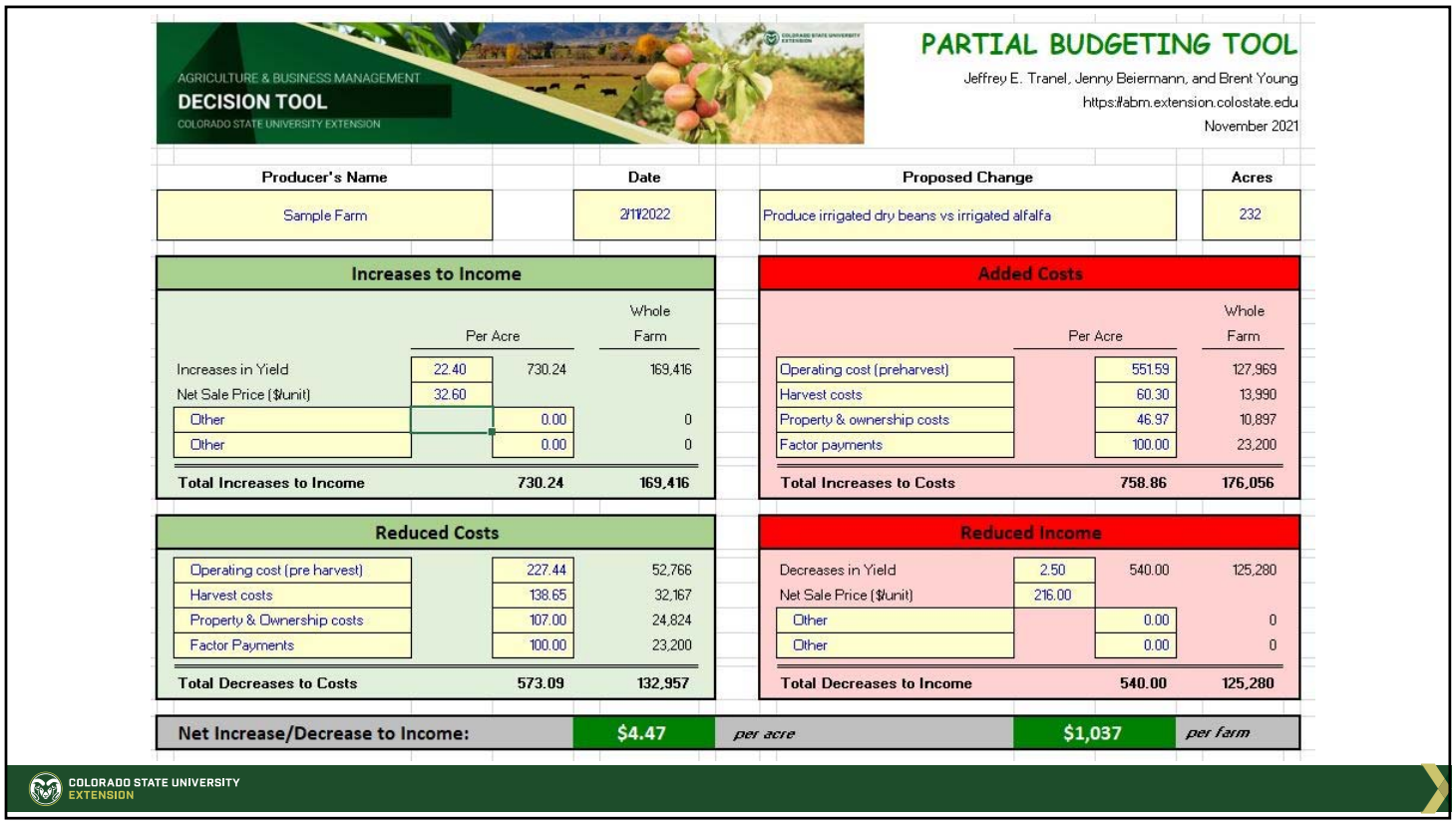
DIRECT COSTS						
	UNIT	COST PER UNIT	QUANTITY	PER ACRE	PER TON	YOUR FARM
OPERATING PREHARVEST						
Establishment (7-year allocation)	acre	42.22	1	42.22	11.41	
Tillage						
Harrow	acre	5.00	1	5.00	1.35	
Fertilizer	lbs	0.28	250	70.00	18.92	
Herbicide						
Custom Application	dollars	8.00	1	8.00	2.16	
Spot Spray (Roundup)	acre	5.00	1	5.00	1.35	
Insecticide						
Custom Application	dollars	8.00	1	8.00	2.16	
Irrigation						
Water Assessment (surface)	dollars	40.00	1	40.00	10.81	
Labor	dollars	35.00	1	35.00	9.46	
Crop Insurance (NAP)	dollars	6.00	1	6.00	1.62	
Fuel	dollars	0.00	1	0.00	0.00	
Repairs & Maintenance	dollars	0.00	1	0.00	0.00	
Interest (6 months @ 7.5%)	dollars	8.22	1	8.22	2.22	
Total Pre-Harvest Expenses				$227.44	$61.47	$0.00
HARVEST COSTS						
Swath (3 cuttings)	acre	15.00	3	45.00	12.16	

Western - Dry Edible Beans (Irrigated)

Estimated Production Costs & Returns

GROSS RECIPTS FROM PRODUCTION						
GROSS RECIPTS	UNIT	PRICE	YIELD	PER ACRE	PER CWT	YOUR FARM
Dry Beans	cwt	$32.60	22.4	$730	$32.60	
Other						
Total Receipts				**$730**		**$0**

DIRECT COSTS						
	UNIT	COST PER UNIT	QUANTITY	PER ACRE	PER CWT	YOUR FARM
OPERATING PREHARVEST						
Field Prep	dollars	160.00	1	160.00	7.14	
Seed	dollars	61.88	1	61.88	2.76	
Fertilizer (N)	dollars	103.17	1	103.17	4.61	
Custom Application	acre	8.00	1	8.00	0.36	
Herbicide	dollars	33.05	2	66.10	2.95	
Custom Application	acre	8.00	2	16.00	0.71	
Fungicide	dollars	20.75	2	41.50	1.85	
Custom Application	acre	8.00	2	16.00	0.71	
Crop Insurance (NAP)	dollars	6.00	1	6.00	0.27	
Irrigation	dollars	35.00	1	35.00	1.56	
Irrigation Labor	dollars	18.00	1	18.00	0.80	
Interest (6 months @ 7.5%)	dollars	19.94	1	19.94	0.89	
Total Pre-Harvest Expenses				$551.59	$24.62	$0.00
HARVEST COSTS						
Custom Harvest	dollars	40.00	1	40.00	1.79	
Labor	dollars	10.00	1	10.00	0.45	
Hauling	acre	0.46	22	10.30	0.46	
Total Harvest Costs				$60.30	$2.69	$0.00



Questions?

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Thank you

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