#73119

The Potato Grower

Grower Project and Record

Each club member is required to keep a business-like record of the projects carried out each year. It is **good business** to keep **complete** and **accurate** records. The purpose of this record book is to let you know how you stand in dollars and cents after completing the year's work. It is an important part of your club project. Be sure to take good care of it and keep it up-to-date. It will help others know what you have done in your club work and how well you have succeeded.

Keep your record book current. As soon as an activity is completed, such as selecting land, fertilizer, or other materials, enter it in the proper space in your record book. When you finish any project-related work, make an entry in your book. This is the best way to keep an accurate record of your activities. Your record will be not be useful unless it is accurate.

Be sure to read the instructions on each page. Make sure you understand them, and know how to make proper entries in the book. Your parents or your local leader can help you get started.

When your record book is complete, turn it over to your local 4-H leader. He or she will check it for accuracy, sign it, and forward it to your county extension educator.

Save all pictures and newspaper clippings relating to your project. If your record is selected to represent the county in some project or other club activity, you will have all of the material needed to show what you have done. Ask your local leader or county extension educator to explain the awards.

Year 20____

Name _____ Age _____Birthdate ____/____/____

Mailing address _____ Month /Day/Year

School grade complete_____ Years in 4-H/FFA _____ Years in 4-H/FFA Sugarbeet Project_____

4-H Club/chapter _____

Office(s) held _____

Committee(s) served on _____

Member's signature _____

Parent's/Guardian's signature _____

Leader's signature _____

Potato Growers Project Record Book

OBJECTIVES

1. To stimulate interest in growing potatoes
2. To learn effective crop management for potato production including
   - fertilization
   - irrigation
   - weed control
   - insect control
   - disease control
   - harvesting
   - marketing

   and to learn how each affects crop quality
3. To keep appropriate records
4. To learn about the potato industry and its opportunities
5. To gain self-confidence and learn responsibility through experience and successful completion of the project

REQUIREMENTS

You will:

1. Deliver approximately 1,000 hundredweight (cwt) of potatoes to your contractor.
2. Supply a legal description of land where you grow potatoes.
3. Complete a pesticide report.
4. Be an active member of a 4-H club and fulfill all meeting and demonstration require ments.
5. Own your own project with a bonafide agreement or contract with your parents or landlord covering machinery, labor, seed, share, etc. This must be signed by your parents and your leader.
6. Have your parents or legal guardian co-sign the contract with the company. (A contract with a potato company is optional).
7. Exhibit at the county fair or an approved alternative.
8. Summarize, and turn in projects to your county extension office on or before December 30 of the current calendar year.
9. Attend the annual field tour of potato projects and give an oral presentation on cultural practices (what it takes to produce the crop) during the tour.
10. Have an up-to-date record book available for review during the field tour.
11. Watch your samples being graded by the USDA. The fieldman will set up the grading at a time when you are able to attend.

EXHIBITS

1. Exhibit a sample of potatoes at the county fair according to local fair regulation.

OR

2. Exhibit a sample of potatoes at a public exhibit other than the county fair. Talk to your leader and/or county agent for approval.

AND

3. Exhibit your completed FC-10, Potato Grower Record Book at the fair.

A special thanks to Ore-Ida Foods, Inc., J.R. Simplot Company, Mini-Cassia Potato Growers of Idaho, and the Minidoka and Cassia County Extension Systems for their help in developing this project.

Field Plan

Show the location of your crop project in relation to the rest of the farm. Indicate the number of acres in your project on the map and give the legal description. If you irrigate, show how the irrigation system for your project is laid out (head ditches, field ditches, etc.).

Number of acres in this year's project _____

Number of acres in last year's project _____

County Potato Grower

The potato crop project is divided into four parts. You must complete all four parts of the project to be eligible to receive a County 4-H Potato Grower certificate and be eligible for county 4-H Champion Potato Grower. A County 4-H Champion Potato Grower will be selected based on the results of four categories:

Category	Points Possible
1. Oral presentation during county field tour	100
2. Preparation and exhibition of potatoes at county fair	50
3. Potatoes evaluated for quality based on grower matrix	100
4. Record book judged and evaluated at end of year	100
TOTAL POINTS POSSIBLE	350

Project Agreement

State the agreement you have made concerning land, equipment, machinery, seed, fertilizers, chemicals, labor, harvesting, etc. Please list any work that you will perform for others to offset the cost of raising your crop.

Signatures

Member _____

Parent _____

Leader _____

Project Production Section

1. What crop rotation do you use? What crops do you grow in your rotation? When was the last time sugarbeets were grown on this site?

2. Describe the steps or methods you used in seedbed preparation. List the percentage of moisture in your soil, any clods present, the time of planting, etc.

3. Describe your fertilization program or schedule. Include specific fertilizers, rates applied, times of application, methods of application, and whether you used a soil test.

4. State which herbicide(s) you used, the rates you applied, and the number of applications you made. What weeds were you trying tocontrol? Evaluate the effectiveness of the herbicide(s) you used.

5. State which fungicide(s) you used, the rates you applied, and what you were trying to control. Evaluate the effectiveness of the fungicide(s) you used.

6. What type of seed did you plant (foundation, certified, etc.)? Describe the seed treatment, size of the seed pieces, who grew the seed and where, seed spacing, planting depth, and row width.

7. What was the stand count before row closure (number of plantes in 100 feet of row)?

8. What mechanical methods (cultivation, etc.) did you use to control weeds, diseases, and insects? Describe the effectiveness of these methods.

9. How did you irrigate your crop? Include the method, rate, and frequency.

10. What insects did you find in the crop? Discuss any insectides you applied, how you applied them, the rates you used, and the result.

11. What diseases did you have, if any (early die, ring rot, scab, etc.)? What controls did you use? At what rates? How did you apply them?

12. What type(s) of soil erosion did you have on your plot (wind erosion, soil movement from irrigation, etc.)? How does the slope, soil type, and type of irrigation affect the erosion on your plot? What did you do to keep soil erosion to a minimum?

13. Did any unusual weather conditions affect your crop? Explain.

14. What impact did bruise have on y our potato crop? What method(s) did you use to decrease the amount of bruising? List methods for both blackspot and shatter bruise.

15. What impact did internal problems have on your potato crop? What method(s) did you use to control internal problems?

16. What do you estimate your crop yield to be and how did you reach this estimate?

17. Do you plan to continue this project next year? Explain.

18. What can you do another year to increase your yield or decrease your costs? Discuss new practices you would like to try.

Budget

Use your best estimate what it will take to grow your crop.

Estimated income:		
1. Yield per acre (cwt)	cwt	
2. Price per cwt ($)		$
3. Gross income per acre ($) (1 x 2)		$

Estimated expenses:	
4. Land cost per acre $	$
5. Water and pump cost per acre $	$
6. Machinery and equipment cost per acre (Include all costs from ground preparation to harvest)	$
7. Fertilizer costs per acre	$
8. Seed costs per acre	$
9. Chemical costs per acre (includes herbicides, insecticides, fungicides, rodenticides)	$
10. Labor costs per acre *(not including your own labor)*	$
11. Dues	$
12. Other miscellaneous costs per acre	$
13. Interest	$
14. **Total of estimated expenses per acre** (Total of 4 through 13)	$
15. **Net income per acre** (3 minus 14)	$

Example Budget

Table 1. Costs and Returns Per Acre to Produce Potatoes **October 26, 2001**

	Quantity Per Acre	Price or Unit	Value or Cost/Unit	Your Cost/Acre	Cost
Gross Returns					
Potatoes	390.00	cwt	4.75	1852.50	
Total Gross Returns For Potatoes				1852.50	
Variable Costs					
G-3 Burbank potato seed	23.00	cwt	8.50	195.50	
Seed cut and treat	23.00	cwt	1.50	34.50	
Dry Nitrogen	165.00	lb	0.31	51.15	
Liquid Nitrogen - postplant	130.00	lb	0.32	41.60	
P205	200.00	lb	0.19	38.00	
Liquid P205	40.00	lb	0.32	12.80	
Potash	180.00	lb	0.15	27.00	
Sulfur	80.00	lb	0.13	10.40	
Micronutrients	2.00	acre	12.00	24.00	
Sencor DF	0.75	lb	19.45	14.59	
Thimet 20G	15.00	lb	2.20	33.00	
Bravo Ultrex	2.50	lb	6.35	15.87	
Monitor 4E	0.75	qt	21.00	15.75	
Prowl	1.00	qt	5.75	5.75	
Eptam 7E	2.00	qt	8.35	16.70	
Dithane F45	3.20	qt	3.00	9.60	
Fulfill	2.75	oz	5.30	14.58	
Sulfuric acid	1.00	acre	25.50	25.50	
Crop insurance -- hail	1.00	acre	36.00	36.00	
Fees	390.00	cwt	0.13	50.70	
Irrigation power	26.50	acin	0.99	26.24	
Irrigation labor	2.44	hour	7.80	19.03	
Water assessment	1.00	acre	24.70	24.70	
Irrigation repairs	26.50	acin	0.57	15.11	
Custom fertilize	2.00	acre	5.10	10.20	
Consultant	1.00	acre	14.50	14.50	
Custom ground spray	4.00	acre	6.00	24.00	
Custom air spray-10g	4.00	acre	8.60	34.40	
Labor (machine)	7.46	hour	11.70	87.33	
Labor (non-machine)	2.61	hour	6.90	18.01	
Fuel - Gas	3.19	gal	1.54	4.92	
Fuel - Diesel	26.95	gal	1.07	28.84	
Lube				5.06	
Machinery repair				43.33	
Interest on operating capital @ 7.50%				30.69	
Total Operating Costs/Acre				1035.34	
Net Returns Above Operating Costs				817.16	
Cash Ownership Costs					
General Overhead				36.00	
Land Rent				310.00	
Management Fee				92.63	
Property Taxes (Machinery)				0.00	
Property Insurance				3.06	
Total Cash Ownership Costs per Acre				441.69	
Non-Cash Ownership Costs (Depreciation and Interest)					
Equipment				121.24	
Total Non-Cash Ownership Costs per Acre				121.24	
Total Costs per Acre				1598.26	
Returns to Risk and Management				254.24	

Irrigation Journal

Explain your irrigation system (include cost per acre, number of irrigations, total irrigation costs, and who did the irrigating).

Irrigation labor cost $ _____

Water cost $ _____
(water, equipment, application, etc.)

Journal Record

Each time any work is done on your project, make a record of it below. Use one line for each kind of work. Make the record the day the work is done. Use the going custom rate for operations you have done by others. For operations you do yourself, use the custom rate less wages for yourself. Charge your wages or hours of work. Your project should give you a good return for your labor.

Do not include irrigation in this journal record. Include all irrigation information on page 15.

Fixed costs: Land $ _____ Interest $ _____ Total fixed costs $ _____

Variable costs:

Date	Activity	Unit (hr/ac)	Cost/ unit	Total $ Expenses	Eqiupment	Chemical	Fertilizer	Interest / Rent	Dues/ Misc.	Seed Harvest	Water/ Power	Hired Labor	Self Labor
Total this page													

Date	Activity	Units/ Acres	Cost/ Unit	Total $ Expenses	Equipment	Chemical	Fertilizer	Interest/ Rent	Dues/ Misc.	Seed/ Harvest	Water/ Power	Hired Labor	Self Labor
	Totals from page 13												
	Totals this page												

Financial Summary

(Total value of products sold and/or on hand)

	Fair-time estimate	Project completion
Receipts:		
Cwt per project		
Dollars per cwt	$	$
Total receipts	$	$
Expenses:		
Land (rent or crop share)	$	$
Irrigation labor	$	$
Water/power	$	$
Seed	$	$
Equipment use	$	$
Fertilizer	$	$
Chemicals and application	$	$
Hired labor	$	$
Self labor	$	$
Interest	$	$
Harvest	$	$
Total expenses	$	$
PROFIT or < LOSS >	$	$
(Total receipts minus total expenses; this represents your income for labor, management, and money invested)		
Average cost per cwt (Divide total expenses by total yield)	$	$

Acres grown_____ Cwt produced _____

My 4-H Club Activities

1. Number of meetings my club held throughout the year _____

   Number of meetings I attended _____

2. Office I held in club _____

3. Committees on which I served _____

4. Demonstrations I gave _____

5. Judging tryouts or tours I attended (where and when) _____

_____

_____

_____

6. Exhibits I made _____

_____

_____

_____

_____

7. Club camp or picnic I attended (where and when) _____

_____

_____

_____

8. Safety and fire prevention activities _____

_____

_____

_____

_____

_____

9. Health activities _____

_____

_____

_____

_____

_____

10. How I improved my health habits during the year _____

_____

_____

_____

_____

11. Citizenship activities _____

_____

_____

_____

Story of My Potato Project

Describe your project. What were your greatest accomplishments? Did you have any problems? Describe your experiences. How will this project be useful to you in the future? What else would you like to know about raising potatoes? What other topics would you like to study?

Pictures, articles, etc.

Optional

The Potato Grower

Grower Project and Record

University of Idaho Extension

Project book revised 10/02