

ACTIVITY 10

Starting a Business in Agriculture



OBJECTIVE:

In this activity, your students act in both sides of an investment market simulation. They develop a business plan to attract money, and they evaluate business plans, directing money into those they approve of.

CURRICULUM FIT:

MICROECONOMICS 30 - Topics A,B,GIV,I

- Ration scarce resources to their most efficient use
- Opportunity cost
- Role of investment in business

AGRICULTURE CONCEPTS:

Economic Importance
Capital Intensity
Production, Processing and Distribution Systems

COGNITIVE LEVEL:

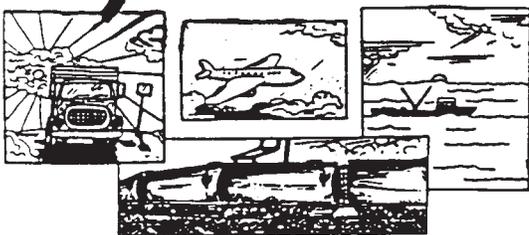
Application, Analysis, Synthesis, Evaluation

MATERIALS REQUIRED:

All resources are supplied.

TIME REQUIRED:

Four 50 minute periods -
1 period for group planning,
2 periods of presentations,
1 period for investment planning and conclusions



BACKGROUND -- For the Teacher

Throughout their study of economics your students have learned concepts about what factors act in an economy. In this exercise they are asked to apply that knowledge to a specific case.

The panel questions that are provided should allow groups to make sure that presenters have considered all the significant factors likely to affect their business plan. Some questions may be answered in the opening presentation.

For this activity to succeed, all groups must invest where they expect to make money. To some extent you will be able to base your evaluation of a group's plan on how well it attracts money in the investment phase. However, in determining an overall mark for the assignment, you will also need to consider how carefully the group invested in budget, and how well they understood the discussion of the general investment pattern and its comparison to their own choices.

We have suggested a format for the prospectus to follow. It will result in a document 4 - 5 pages long; this is long enough to include the information that would be critical to success in a real venture, but too short for extensive description. If you favor another format strongly, you should feel free to ask that it be used.

TELL YOUR STUDENTS

In addition to the information that will get people to invest or loan money a prospectus always has two statements to protect the proponents:

1. Prospectus must state that there are risks involved in the process.
2. Prospectus must have a disclaimer stating that there is no guarantee that the project will succeed.

PROCEDURE

Part 1

Preparation

1. Decide how many task groups you will use and how you will choose them.
2. For each task group, prepare:
 - one copy of the group task sheet
 - one set of money coupons
 - one prospectus outline
 - one set of interview questions
3. Photocopy the reference case studies.

Part 2

Introduction

4. Explain that:
 - this activity asks students to apply their knowledge of economics to a particular business
 - students will act both as promoters of a venture and as potential funders of other ventures
5. Establish the working groups and give them their materials.
6. List the case studies available for developing a prospectus.

Part 3

Student Activity

a. Planning (Day 1)

7. Each group must either choose a case study or propose an agricultural business of its own.
8. Group members use the directions on the Group Task Sheet and the Prospectus Outline to develop a start-up plan for the business they have chosen.

b. Presenting
(Days 2 & 3)

9. Each group is to make a ten minute presentation of their plan to the rest of the class.
10. Students not presenting act as potential investors or lenders and have a ten minute questions period to clarify their understanding of the plan. They may use any of the interview questions and add any others that will help them evaluate the proposal.

c. Investing
(Day 4)

11. Each group has an investment budget of \$100,000 in \$10,000 units. Members must evaluate the proposals they hear and choose which ones they expect to make the most money.
12. Each group is to invest its total budget in projects. The group may invest as many units in a project as its members feel appropriate.

NOTE

Do not allow any group to invest in its own plan or to agree to reciprocal investment deals with other groups.

13. Have each group display the distribution of their investment in a bar graph.

Part 4
Conclusion

14. Tally the investment in each project and make a bar graph of the overall pattern of investment.
15. For each project lead a discussion of why the project attracted the money it did, and why some groups provided more or less than the average amount of support.
16. Have each group write a statement of how they would amend their project to attract more money, or how they would proceed with the money they raised.

DISCUSSION QUESTIONS

1. Did any group achieve its budget requirements from the investor groups?
2. Could the pool of money available for investment have fully funded all the proposals?
3. In the real world, what do companies do when they cannot arrange financing in a local money community?
4. Which of the two forms of raising capital (i.e. borrowing and selling equity) was used most by proponents? Which was most popular with money suppliers? Does this match with the real world?
5. What are the relative advantages and disadvantages of loan financing and equity financing for
 - a) money seekers, and
 - b) money suppliers?

RELATED ACTIVITIES

1. Have the class members each obtain a prospectus from a company. Compare them to the topic outline and each other in terms of what information they reveal, what they ignore and what they obscure.
2. Invite a guest speaker to talk about consumer credit, business credit and equity investment.

STUDENT RESOURCE



GROUP TASK ONE

The members of this group have been brought together by an anonymous benefactor. You have jointly been left a parcel of land in Alberta. This legacy has only one condition: you must use the property as the site for an agricultural business.

Your business can be in the production, processing, marketing or service phases of any agricultural product. Your teacher has several case examples. You may choose one of them, or prepare any business for which you can get information.

You will receive your property by lottery. Once you have located the land on a map, you must agree on an agricultural business that can succeed there and prepare a start-up plan (technically a PROSPECTUS) for it. A business plan serves two purposes during the starting and running of a business. It acts as a guide to the entrepreneur, forcing him or her to examine the details of how to operate and what problems to anticipate. It also works as a sales document, explaining the new company to outsiders.

Your plan should include the items listed in the Prospectus Outline. Describe topics A to E in point form or short paragraphs. Each topic will need about half of a typed page, don't go beyond three pages for these topics. In topic F, items 1, 2 and 3 are best shown with financial charts like the samples included with this lesson. Item 4 and item 5 should be covered in a paragraph summarizing the charts.

When your business plan is ready, a group representative must present it to the rest of the class. Your classmates will act as a panel of economists, bankers and potential investors. Their role is explained in Group Task Two.

STUDENT RESOURCE



GROUP TASK TWO

Your group is to act as a venture capital firm. You have a budget of \$100,000 to place in agricultural businesses. Your objective is to increase that money by either lending it for interest or investing it for a share of the business.

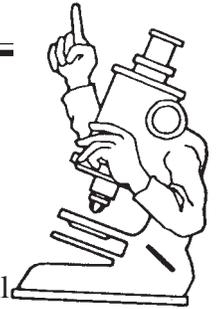
Several groups will present proposals to you. Each has chosen a business to take advantage of a land parcel they inherited. Their job is to convince you to help finance their opening.

You must be certain that any group you invest in has a clear idea of what it is about to do, and that its proposal will repay your money within a reasonable length of time. Check oral presentations against the Prospectus Outline, and use the question period to fill in any other information you need.

Once you have heard all the proposals, you must agree on where your money will earn the best return. Invest your entire budget, in \$10,000 units. **YOU CANNOT INVEST IN YOUR OWN PLAN FROM TASK ONE.**

Your teacher will lead a concluding discussion as soon as all groups have placed their investments.

STUDENT RESOURCE



PROSPECTUS OUTLINE

Your business plan should address all of the topics below. Your fellow students will question you on any items you overlook.

INFORMATION REQUIRED	FORMAT
<p>A. Business Description</p> <ol style="list-style-type: none"> 1. What business are you in? 2. What is the market for your business? 3. How many companies serve this market? 4. What is the present status of your business? 5. Who are your suppliers? 	<p>Use paragraphs or point form Approximately ½ page</p>
<p>B. Business Location</p> <ol style="list-style-type: none"> 1. Where are you locating and why are you there? 2. Does your site need modifying and what will that cost? 3. Are there legal restrictions on your site? 4. Will the site be too small if you expand? 	<p>Use paragraphs or point form Approximately ½ page</p>
<p>C. Management</p> <ol style="list-style-type: none"> 1. What is your business management experience? 2. Are you physically able to do the job? 3. What is the organizational structure of the business? 4. What will staff be paid? 5. What outside management resources do you use? 	<p>Use paragraphs or point form Approximately ½ page</p>
<p>D. Market</p> <ol style="list-style-type: none"> 1. Describe the characteristics of your potential customers. 2. How big can this market become? 3. How will you attract and keep your market segment? 4. How will you justify your price? 5. What forms of payment will you accept? 	<p>Use paragraphs or point form Approximately ½ page</p>
<p>E. Competition</p> <ol style="list-style-type: none"> 1. Describe other companies that sell your product to your market. 2. What are the strengths and weaknesses of your competitors? 3. How will you differ from your competitors? 	<p>Use paragraphs or point form Approximately ½ page</p>
<p>F. Financial Data</p> <ol style="list-style-type: none"> 1. Describe your start-up costs, with a breakdown by cost per item. 2. Estimate your annual operating costs. 3. Estimate your annual revenue and describe the schedule on which it will be received. 4. How long will it take you to pay off your start-up costs? 5. How much can an investor expect to make on money put into your business today? 	<p>Complete the three charts supplied Add a ½ page explanation of return and time</p>

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STUDENT RESOURCE



CASE STUDY 1:

Grain Farm, Southwestern Alberta

Description

This property is located 15 km southwest of High River, Alberta. It consists of 1280 acres, of which 1,200 acres are good quality soil ready for cultivation. The remaining 80 acres are coulees and brush. The property includes a beautiful yard location but there are no buildings or services.

Production

This farm produces only grain. The typical crop rotation is hard spring wheat (600 acres), barley (300 acres) and summerfallow (300 acres). Wheat is sold to the local elevator at the rate and price allowed by a Canadian Wheat Board delivery quota. Barley is sold on the cash market to a local feedlot.

Start-up costs

1. Land	\$ 400/acre
2. Water Well	\$ 5,000
3. Road	\$ 3,000
4. Natural Gas	\$ 3,000
5. Electricity	\$ 5,000
6. Phone	\$ 1,500
7. Sewage System	\$ 3,000
8. Mobile Home	\$ 15,000
9. Furniture/Appliances	\$ 7,000
10. Grain Storage	\$ 25,000
11. Equipment Storage	\$ 18,000
12. Grain Machinery	\$180,000
13. Truck	\$ 7,000
14. Fuel Tank, Tools etc.	\$ 5,000

TOTAL \$789,500

Fixed Operating Costs (annual)

1. Land Taxes	\$ 2,500
2. Utilities	\$ 1,500
3. Licenses/Insurance	\$ 2,000
4. Accounting Fees	\$ 500
5. Living Costs	\$18,000
6. Depreciation of machinery (not a cash cost)	15% of value
TOTAL	\$51,500

STUDENT RESOURCE



Variable Operating Costs and Estimated Revenues by Crop

HARD WHEAT

Revenue		Costs	
average price	\$3.75/bushel	seed	\$10/acre
expected yield	25 bu/acre	fertilizer	\$12/acre
revenue per acre	\$93.75	chemicals	\$10/acre
total acreage	600 acres	machinery-fuel & lube	\$ 8/acre
<hr/>		machinery-repair	\$ 5/acre
TOTAL REVENUE	\$56,250.00	crop & hail insurance	\$ 4/acre
		interest on operating capital	\$ 3/acre
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		TOTAL	\$52/acre

BARLEY

Revenue		Costs	
average price	\$1.15/bushel	seed	\$ 6/acre
expected yield	50 bu/acre	fertilizer	\$12/acre
revenue per acre	\$107.50/acre	chemicals	\$10/acre
total acreage	300 acres	machinery-fuel & lube	\$ 8/acre
<hr/>		machinery-repairs	\$ 5/acre
TOTAL REVENUE	\$32,250.00	crop & hail insurance	\$ 4/acre
		interest on operating capital	\$ 3/acre
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		TOTAL	\$48/acre

SUMMERFALLOW

Revenue	Costs	
Zero	machinery-fuel & lube	\$ 5/acre
	machinery-repairs	\$ 5/acre
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	TOTAL	\$10/acre

STUDENT RESOURCE



CASE STUDY 2: Cattle Ranch, West Central Alberta

Description

This property is located 50 km west of Sundre, Alberta. It consists of a wintering yard of 320 acres (mixed pasture and bush) and provincial grazing lease rights to 5,000 acres. The lease is in the provincial forest reserve adjacent to Jasper National Park. There are no existing buildings or services except fences.

Production

This ranch can support 250 cows. Calves are weaned in early October and sold at the local auction market in late October. The cows are wintered and calved out on the home property, then turned into the forest reserve lease from June 1 to October 1.

Start-up costs

1.	Land (winter)	\$ 100/acre
2.	Water Well	\$ 5,000
3.	Road	\$ 2,000
4.	Electricity	\$ 7,000
5.	Phone	\$ 1,500
6.	Sewage System	\$ 3,000
7.	Mobile Home	\$ 10,000
8.	Furniture/Appliances	\$ 3,000
9.	Equipment Storage	\$ 5,000
10.	Corrals, Barns	\$ 15,000
11.	Farm Machinery	\$ 7,000
12.	Vehicles (Truck)	\$ 10,000
13.	Bulls (need 1 per 25 cows)	\$ 2,500 each
14.	Cows	\$ 900 each
15.	Fuel Tanks, Tools, etc.	\$ 5,000

TOTAL \$355,500

Fixed Operating Costs (annual)

1.	Land Taxes	\$ 500
2.	Utilities	\$ 1,500
3.	Licenses/Insurance	\$ 2,000
4.	Accounting Fees	\$ 500
5.	Living Costs	\$18,000
6.	Machinery Replacement	15% of value

TOTAL \$23,550

STUDENT RESOURCE

CASE STUDY 3: Irrigated Grain Farm, Southern Alberta

Description

This property is located 20 km northeast of Lethbridge, Alberta. It consists of 640 acres, with 575 acres being cultivated and irrigated. Two electric, pivot sprinklers water a 130 acre field each; two wheelline sprinklers water one field of 160 acres and one of 155 acres. There are no existing buildings or services except irrigation canals, ditches and deliveries.

Production

This farm produces grain and oilseed crops. These are sold to a local elevator, to food processors or to feedlots.

Start-up costs

1.	Land	\$ 700/acre
2.	Water Well	\$ 5,000
3.	Road	\$ 2,000
4.	Electricity	\$ 5,000
5.	Natural Gas	\$ 5,000
6.	Phone	\$ 1,500
7.	Sewage System	\$ 3,000
8.	Furniture/Appliances	\$ 7,000
9.	Mobile Home	\$ 15,000
10.	Grain Storage	\$ 25,000
11.	Equipment Storage	\$ 18,000
12.	Farm Machinery	\$100,000
13.	Irrigation Equipment	\$128,000
14.	Fuel Tanks, Tools	\$ 5,000
15.	Vehicle (truck)	\$ 10,000

TOTAL \$777,500

Fixed Operating Costs (annual)

1.	Land Taxes	\$ 1,500
2.	Water Taxes	\$ 7,500
3.	Utilities	\$ 2,000
4.	Living Expenses	\$18,000
5.	Machinery Replacement (Farm Machinery & Irrigation Equipment)	15% of value
6.	Accounting Fees	\$ 1,000
7.	Licenses/Insurance	\$ 2,000

TOTAL \$66,200



STUDENT RESOURCE

Variable Operating Costs and Estimated Revenues by Crop

SOFT WHEAT

	Revenue		Costs
average price	\$3.75/bushel	seed	\$10/acre
expected yield	70 bu/acre	fertilizer	\$26/acre
revenue per acre	_____	chemicals	\$10/acre
total acreage	290 acres	machinery-fuel & lube	\$15/acre
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TOTAL REVENUE	_____	machinery-repair @ \$4/acre	\$15/acre
		irrigation pumping	\$15/acre
		crop & hail insurance	\$ 8/acre
		interest on operating capital	\$ 6/acre
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		TOTAL COSTS PER ACRE	_____

CANOLA

	Revenue		Costs
average price	\$6.40/bushel	seed	\$10/acre
expected yield	45 bu/acre	fertilizer	\$26/acre
revenue per acre	_____	chemicals	\$11/acre
total acreage	130 acres	machinery-fuel & lube	\$15/acre
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TOTAL REVENUE	_____	machinery-repairs	\$15/acre
		irrigation pumping	\$15/acre
		crop & hail insurance	\$ 8/acre
		interest on operating capital	\$ 6/acre
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		TOTAL COSTS PER ACRE	_____

BARLEY

	Revenue		Costs
average price	\$2.15/bushel	seed	\$ 6/acre
expected yield	80 bu/acre	fertilizer	\$26/acre
revenue per acre	_____	chemicals	\$10/acre
total acreage	150 acres	machinery-fuel & lube	\$15/acre
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TOTAL REVENUE	\$32,250.00	machinery-repair	\$15/acre
		irrigation pumping	\$15/acre
		crop & hail insurance	\$ 6/acre
		interest on operating capital	\$ 6/acre
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		TOTAL COSTS PER ACRE	_____

STUDENT RESOURCE



CASE STUDY 4: Dairy Farm, Central Alberta

Description

This property is located 10 km east of Wetaskiwin, Alberta. It consists of a 50 cow dairy based on 40 acres. All feed is purchased. There are presently no buildings or services except for fences.

Production

This farm can ship milk on its **Fluid Quota** of 146,000 litres per year and its **Market Share Quota** of 200,000 litres per year. The 40 acre land base is enough to pasture dry cows; feed is purchased for the actively milking farm. Replacement cows are all purchased.

Start-up costs		Fixed Operating Costs (annual)	
1. Land	\$ 400/acre	1. Land Taxes	\$ 2,000
2. Cows	\$ 1,500 each	2. Utilities	\$ 4,000
3. Fluid Quota	\$112,000	3. Living Expenses	\$20,000
4. Market Share Quota	\$130,000	4. Machinery Replacement	15% of value
5. Barn	\$ 2,500/cow	5. Accounting Fees	\$ 1,000
6. Feed & Machinery Storage	\$ 15,000	6. Licenses & Insurance	\$ 3,000
7. Mobile Home	\$ 15,000		
8. Water Well	\$ 10,000	TOTAL	\$33,000
9. Natural Gas	\$ 3,000		
10. Electricity	\$ 7,000		
11. Sewage System & Lagoon	\$ 10,000		
12. Machinery	\$ 20,000		
13. Vehicles	\$ 10,000		
14. Corrals	\$ 5,000		
15. Furniture/Appliances	\$ 5,000		
	<hr/>		
TOTAL	\$558,000		

STUDENT RESOURCE



Estimated Revenue and Variable Costs

Revenue

Fluid milk revenue

$$400 \text{ l/day} \times 365 \text{ days} \times \$0.47/\text{l} = \$68,620.00$$

Market share revenue

$$200,000 \text{ l} \times \$0.41/\text{l} = \$82,000.00$$

Cull cows

$$10 \text{ cows} \times 1400 \text{ lb} \times \$0.50/\text{lb} = \$ 7,000.00$$

Calves

$$50 \text{ calves} \times \$200.00 = \$10,000.00$$

TOTAL REVENUE = _____

Variable Costs

Feed	\$ 950 per cow	\$47,500.00
Veterinary Expenses	\$ 80 per cow	\$ 4,000.00
Bedding	\$ 75 per cow	\$ 3,750.00
Milk Transport	\$ 125 per cow	\$ 6,250.00
Fuel & Repairs	\$ 65 per cow	\$ 3,250.00
Producer's Fees	\$ 55 per cow	\$ 2,750.00
Miscellaneous	\$ 100 per cow	\$ 5,000.00
Cow Replacement	\$1,500 each	\$15,000.00

TOTAL _____