| Name | | |
|------|--|--|
| | | |

ENTERPRISE BUDGETING

I. Assume you have a chance to rent 1,000 acres of cropland for 6 years. You can raise only wheat. Your problem is to develop an enterprise budget to see if this venture will be profitable before you sign the lease and purchase the necessary machinery.

A. MACHINERY NEEDED (Use only for the 1,000 acres of wheat.)

| | | | | | Annual |
|----------------|-------------|---------------|--------------------|--------------|------------------|
| <u>Machine</u> | <u>Cost</u> | Salvage Value | <u>Useful life</u> | Annual Taxes | <u>Insurance</u> |
| 1. Tractor | \$150,000 | \$45,000 | 6 yrs. | \$65 | \$150 |
| 2. Chisel | \$17,600 | \$ 6,000 | 6 yrs. | \$20 | \$ 45 |
| 3. Disk | \$18,800 | \$ 7,500 | 6 yrs. | \$20 | \$ 45 |
| 4. Grain drill | \$19,800 | \$ 5,700 | 6 yrs. | \$20 | \$ 55 |
| 5. Pickup | \$19,700 | \$ 3,800 | 6 yrs. | \$95 | \$620 |

B. <u>MACHINERY CALCULATIONS</u> - <u>AVERAGE ANNUAL FIXED COSTS</u> (<u>Use 8%</u> <u>opportunity cost for capital</u>.)

| | Depreciation | Interest | Taxes | Insurance |
|---------------|--------------|----------|-------|-----------|
| Tractor | | | | |
| Chisel | | | | |
| Disk | | | | |
| Grain drill | | | | |
| Pickup | | | | |
| TOTALS | | | | |
| Cost per acre | | | | |

C. OTHER INFORMATION

| acre |
|----------------|
| er bu. |
| acre |
| ac ac ac |

| 8. Tı | ractor variable cost | \$8.20 per acre |
|-------|--|--|
| 9. V | ariable cost on other mach. & equip. | \$ 3.65 per acre |
| 10. C | Custom harvesting, hauling, etc. | \$18.00 per acre |
| 11. C | Compute interest on total <u>preharvest</u> co | osts @ 8% for 6 months. |
| | information above and your machiner en answer the following questions. | ery calculations to complete the enterprise budget on the next |
| l. | With yield of 35 bu. per acre, what | is the break-even selling price? |
| | | Ans |
| 2. | If the selling price was only \$2.85 p even? | per bu., what per acre yield would be necessary to break- Ans |
| 3. | If the expected yield was only 30 bubreak-even on the operation? | u. per acre, what selling price would be required to just |
| | | Ans |
| 1. | According to your budget, what is the | the Cost of Production per bu.? |
| | | Ans |
| 5. | Would you sign this lease and purch | hase the machinery? <u>WHY</u> ? |
| б. | If you had already signed the lease a wheat fall before you should stop process. | |
| | | Ans |

C. OTHER INFORMATION (CONT.)

WHEAT BUDGET

| I. INCOME | |
|--------------------------------|----------------------|
| II. VARIABLE COSTS Preharvest | Total Income |
| | |
| <u>Harvest</u> | |
| | Total Variable Costs |
| III. FIXED COSTS | Income above VC |
| | |
| | Total Fixed Costs |
| | Total Costs |
| | Net Return |

- II. Rather than developing an enterprise budget from scratch, it is often easier to begin with one developed by your State Cooperative Extension Service or some other source and modify it to fit your individual situation. Assume you are currently farming and have been given the opportunity to rent an adjoining 300 acres where you would grow only corn. You would like to know if it would be profitable to rent this land. To help with your decision, you have acquired the attached enterprise budget for corn but feel you must make the following changes for the budget to fit your situation. Use the right-hand column to calculate your modified corn enterprise budget. (If no change, use budget value.)
- 1. Corn price is expected to be \$2.40 per bu. but you expect 95 bu. per acre. (Note yield change affects hauling costs.
- 2. Seed price is now \$1.75 per pound.
- 3. You can now buy fertilizer for \$0.14 per pound. Application cost is the same.
- 4. Herbicide is now \$2.25 per pound.
- 5. Tractor & machinery variable costs should be 25% higher than budget values.
- 6. You would like to make \$10.00 per hour for your labor and your big machinery should reduce labor needs to 1.8 hours per acre.
- 7. Opportunity cost of your capital is 10%.
- 8. Machinery and tractor fixed costs should be only 85% of budget values.
- 9. You can rent the land for \$42.00 per acre.
- 10. Custom combine now costs \$22.50 per acre.

| - | Would you rent the land for \$42.00 per acre? Why? |
|----|--|
| | |
| 2. | If the price of corn turns out to be \$2.00 per bu., what yield would be necessary to just cover all costs including your labor cost. (Ignore the change in hauling cost.) |

3. What is the maximum cash rent you could pay for this land (i.e. what cash rent would just make this a breakeven deal, i. e., no profit?

4. If you would be willing to receive only \$6.00 per hour for your labor, what is the maximum cash rent you could pay and earn the \$6.00 per hour?

CORN

| | | COKIN | | |
|---------------------------------|------------------------|------------|---------------|--------------|
| | Price or Cost Per Unit | Quantity | Value or Cost | Your Figures |
| 1. GROSS RECEIPTS | | | | |
| CORN | \$2.25 | 85.0 bu. | \$191.25 | |
| 2. VARIABLE COSTS | | | | |
| Preharvest | | | | |
| Seed | \$1.25 | 13.0 lbs. | \$16.25 | |
| Fertilizer (N) | 0.16 | 100.0 lbs. | 16.00 | |
| Fertilizer application | 3.00 | 1.0 acre | 3.00 | |
| Herbicide | 2.00 | 4.0 lbs. | 8.00 | |
| Machinery | 6.00 | 1.0 acre | 6.00 | |
| Tractors | 10.40 | 1.0 acre | 10.40 | |
| Labor | 6.00 | 2.1 hrs. | 12.60 | |
| Interest on V.C. (for 6 months) | 12% | 72.25 | 4.34 | |
| Subtotal | | | \$76.59 | |
| Harvest Costs | | | | |
| Custom combine | 20.00 | 1.0 acre | 20.00 | |
| Custom haul | 0.15 | 85.0 bu. | 12.75 | |
| Subtotal | | | \$32.75 | |
| Total Variable Cost | | | \$109.34 | |
| 3. INCOME ABOVE VARIABLE COST | | | \$81.91 | |
| 4. FIXED COSTS | | | | |
| Machinery | 8.20 | 1.0 acre | 8.20 | |
| Tractors | 16.00 | 1.0 acre | 16.00 | |
| Land | 45.00 | 1.0 acre | 45.00 | |
| Total Fixed Costs | | | \$69.20 | |
| 5. TOTAL COSTS | | | 178.54 | |
| 6. NET RETURNS | | | \$12.71 | |