Strawberry Enterprise Budgeting & AGR-Lite Crop Insurance

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Goal Today

- Overview ways to prepare an Enterprise Budget for your strawberry operation
- Provide a list of resources for you to use in this process
- Brief overview of AGR-Lite with a list of additional resources

Enterprise Budgeting

- Estimate projected costs, revenue, and net returns for a single enterprise (strawberries)
- Planning tool to test out new ideas
  - Identify price or yield needed to break even
  - Estimate input, facility, and marketing needs
  - Compare different enterprises to identify best
  - Assess feasibility and profitability of current or potential enterprises

Enterprise Budgeting

- Most farms have multiple crop, livestock, and business enterprises
  - Enterprise budgets estimate costs, revenues and net returns for each farm enterprise
- Each enterprise budget a “Lego”
- Snap “Legos” together to make your farm
- Try different mix of “Legos” to look at different farms you could operate

Building an Enterprise Budget

- **Revenues – Costs = Returns**
- **No formal structure for enterprise budget**
- Cost categories used
  - Variable or Operating Costs
  - Fixed or Ownership or Overhead Costs
- Machinery and Building Costs
  - Split into fixed and variable costs?
  - Put into their own category?
- Time line version: Planting Costs, Harvest Costs

Building an Enterprise Budget

- Concept not hard: Revenue easy to estimate, variable input costs easy too
- Cost estimation difficult for machinery, buildings, facilities, equipment, etc.
  - What does it cost to plow a field?
  - What is the annual cost of storage shed?
- Cost allocation difficult
  - How much tractor repair cost allocate to strawberries?
  - How much farm liability insurance allocate to strawberry production vs. strawberry pick-your-own?

Main Point

- Requires (boring?) work on your part
- Important: You can see where you are making money and where you are losing it
- Requires you to make lots of assumptions
  - Don’t trust someone else’s budget
  - Make assumptions you are comfortable with, as you bear the responsibility of your choices
- <u>You</u> need to estimate <u>your</u> costs

Cost Estimation

- Materials, Supplies, Hired Labor
  - Cost you write checks for
  - Easy to calculate if you have records
  - Should have records if file taxes (Schedule F)
- Machinery/Facilities/Equipment
  - Includes costs you don’t write checks for
  - Harder to estimate/measure, but can be a large component of your costs
  - Machinery for grain production: 25-40% costs

Machinery/Equipment/Facility Cost Concepts

- Variable Cost, Use-Related Cost, Operating Cost
  - Costs from using the machine, equipment, or building
  - Maintenance, use-related repairs and labor, fuel, lube
  - You write checks for these
- Fixed Cost, Time-Related Cost, Overhead Cost
  - Costs paid whether use it or not
  - Interest, insurance, taxes, housing
  - You write checks for these

Depreciation

- Both a variable and fixed cost
  - How much the machine/facility/equipment loses value from use and age
  - Vehicle loss in value due to mileage (variable cost) and age (fixed cost)
  - You do not write a check for this one
- Various methods to estimate (straight line)
  - Tax depreciation too fast, no salvage value
  - See various resources for more information

Allocation Problem

- Some variable costs should be allocated across multiple years
  - Tractor tires, engine overhaul, barn roof or painting
  - Pubs list average annual costs for many common types of machines and buildings
  - Problem: strawberry growers not "common"
- Many costs must be allocated to more than one enterprise
  - Farm truck, machine shed or shop, property taxes, farm liability insurance, etc.
  - Use some basis: % revenue, % acres, % time, etc.

Fast and Simple Method

- Complexities make estimating your actual machinery/equipment/facility costs difficult, time consuming, full of assumptions
- Custom or rental rates can be fast and simple basis to estimate annual costs for machinery/equipment/facilities
- Worked out a method for grain producers, but not clear how applies to strawberries

Fast and Simple Method

- Typical grain farmer costs likely higher than observed custom rates
  - Custom operators
    - Run over more acres, spread fixed costs
    - Lower purchase price by searching for best price or getting volume discounts
    - More efficient operators
  - Family/friends not charge each other enough
  - Custom rate discounted because not perfect timing

Fast and Simple Method and Strawberries

- Special equipment/buildings so no custom or rental rate to use
- Fewer acres, so less land to spread fixed costs over—higher per acre costs
- Older, smaller, cheaper, mostly depreciated machinery and equipment—lower per acre costs
- How do custom rates compare to typical costs?

Family Labor and Management

- Track/estimate hours of family labor and charge to enterprises as if paid fair wage
- Then the net return generated by the enterprise is the return to your management
- Track/estimate management time and charge to enterprises as if paid fair wage
- Then the net return generated by the enterprise is the return to ownership/investment

Building an Enterprise Budget Two Basic Approaches

- Start with an enterprise and list all inputs and activities and their cost
  - More intuitive approach
  - Often miss farm overhead costs
- Start with all farm costs (Schedule F) and allocate each cost to each farm enterprise
  - Forces you to allocate all farm costs
  - Need adjustments: inventories, depreciation, family labor, allocation of multi-year costs, etc.

First Approach

- Most common, many available
  - Usually spreadsheet based
  - See additional resources
- Wide distribution in estimates
  - Class assignment ($/ac) 3,500; 4,400; 7,200; 7,800; 8,100; 15,000; 26,000
  - Woods et al (2006): $4,739/ac

Second Approach

- Allocate all your Schedule F costs
- Built system for Wisconsin potato growers that can be easily adapted to strawberries
  - Spreadsheet based system on internet
  - See additional resources

Multi-Year Crops

- How deal with establishment year versus later years for strawberries?
- Assume establish year 1, then 3 more years
- 1st approach: treat strawberry patch as an investment, calculate the net present value of its cash flow over 4 years and annualize it
  - See additional resources
- 2nd approach: average net return across life of patch, as though ¼ of patches of each age

Conclusion

- Strawberry enterprise budget are useful
  - Identify price or yield needed to break even
  - Estimate input, facility, and marketing needs
  - Assess profitability of current operation
- Requires you to make lots of assumptions
  - Don’t trust someone else’s budget
  - Make assumptions you are comfortable with, as you bear the responsibility of your choices
- <u>You</u> need to estimate <u>your</u> costs and it is WORK