



# Livestock Cost of Production Learning Group

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# (Re)Introductions

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- Name/Farm Name
- What was your recordkeeping goal?
- What did you discover?

# Goals

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- Help you identify a process for determining your costs, address costing challenges and support you to determine your costs of production for various livestock products.
- Learn from you and get your input on what factors influence costs and what the challenges are to determining costs.

# Here's the plan...


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- Recap last time...
  - Introductions
  - Previous Experience/Efforts with Costing
  - Why costing
  - What inputs are you accounting for/should you account for?
  - What's challenging
  - Committed to doing some recordkeeping
- Today...
  - Look at costing example and talk about concepts
    - Labor costing, variable machinery costs
  - Think/talk about how these concepts apply to your operations
  - Identify action items

# Key Costing Terms

- Variable vs. Fixed Costs
  - Variable costs change with production volume
  - Fixed costs stay constant over range of production volume
  - What costs will change if I produce/grow more or less of X?
- Direct vs Indirect (Overhead) Costs
  - Direct costs are traceable (unique) to a specific product
    - What costs will be avoided (go away) if I stop producing this product?
  - Indirect costs are not traceable (or not worth tracing)
- Direct Variable
- Direct Fixed
- Indirect Fixed
- *Indirect Variable*

# Accounting for Time

- How much time do you spend on an activity?
    - It varies...
  - Is any part of the time for the activity fixed?
    - Opportunities for efficiencies here.
  - If you increase production volume what stays constant?
  - Examples:
    - Travel Time
      - Use an average distance
      - Time per trip
    - *Moving inputs/products*
      - *Handling is variable with inputs/products*
      - *Trips are variable with inputs/products*
        - *Related to equipment*
      - *Relationship between inputs and acres, products and acres*
    - Set Up Time
      - Set up time per activity event
      - Not machinery time?
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Which production activities do you know differ a lot in terms of how long they take?

What causes them to differ?

What is the longest/shortest amount of time they can take?

What happens to total costs and profits as the time for the activity changes?

What can you do to make sure that they take less time?

# Assigning a Value for Time

- What does one hour of labor cost you?
- What is one hour of your time worth?
  - What you pay employees?
    - Average, weighted average
  - What you could make doing something else?
    - Opportunity cost = what you are giving up
  - Planning for personal + business financial needs
    - From some combo of payroll/profit
  - What if you have no employees and no opportunity cost and need?
    - Is time a constraint?
    - What are the returns per hour of labor?
      - Return per labor hour
        - $\text{Returns} = \frac{\text{Income} - \text{Costs}}{\text{Labor Hours}}$
      - Need to know hours per enterprise





What \$ value will you use  
for one hour of labor?

# Machinery Costs

- Variable Cost per Machine Hour (Tractor + Equipment)
  - Fuel
    - Gallons of fuel used per hour x cost per gallon of fuel
  - Lube
    - Fuel cost per hour \* .15 = Lube cost
  - Repair and Maintenance
    - Total cost of repairs and maintenance      Total hours of use
      - *What if you do the repairs?*
      - *Some maintenance is not based on use*
- Fixed Costs
  - Depreciation (replacement)
  - Interest
  - Property Taxes
  - Insurance
  - Housing

*per hour?*  
cash versus non-cash  
sunk costs  
opportunity costs

What machinery do you use for your enterprise?

How much fuel do you use per hour?

How might you estimate repair costs?

# Action Items

- Pay attention to activities that have variable and fixed parts
  - Consider noting the time in two parts variable time and fixed time
- Decide on how to value one hour of labor
- Identify fuel use for machinery
  - Bonus
    - How might you estimate repair and maintenance costs?
    - How many hours of use per year/useful life in years for each piece of machinery?