

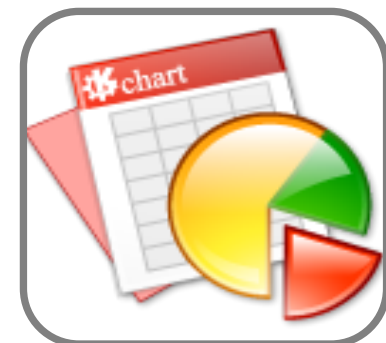
Farm Financial Management Workshop

**Next Generation North
February 11 2017**

John Molenhuis

Business Analysis and Cost of Production Specialist

- Farm recordkeeping
- Ontario Farm Accounting Workbook
- Cost of production
 - Calculating COP
 - Tools
 - Machinery costs
 - Feed costs
 - Fencing costs
 - Feeder Cattle
 - Meat processing



Why keep records?

Monitor Impact
of Decisions

Weaknesses
Strengths

Progress

Key
Indicators

Programs

Cuz you have
too!



What are you looking for?

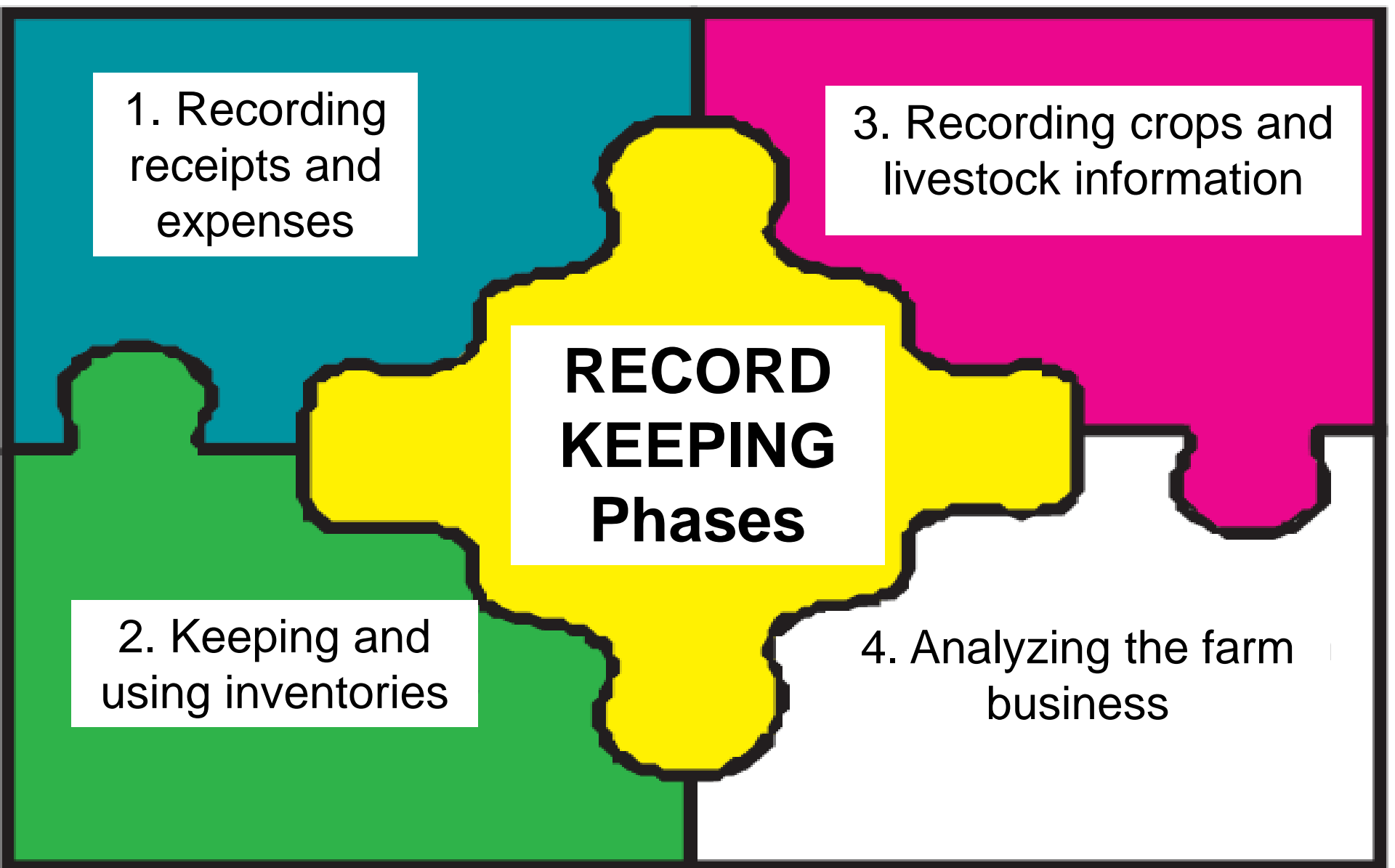
- **Taxes**
- **Programs**
 - **AgriStability, Growing Forward 2, Traceability etc**
- **Accrual statements**
- **Cost of production (enterprise analysis)**
- **Financial and production information**
- **Management accounting**
 - **making decisions**



Good records should answer:

- Do present crop-livestock operations provide the income to generate a profit and cash flow to service debts and pay family living expenses?
- What were production costs?
- What prices and yields are needed in order to break even?
- What will expenses and income be for the coming year?
- If an alternative enterprise is added, how will it affect cash flow and profitability?





1. Recording receipts and expenses

3. Recording crops and livestock information

**RECORD
KEEPING
Phases**

2. Keeping and using inventories

4. Analyzing the farm business

Record keeping phases or “puzzle”

Source: South Dakota State University

Agricultural Management Institute Videos

FARM BUSINESS (eTeam Video Series

Canada



Ontario

Growing Forward 

AGRI-FOOD MANAGEMENT INSTITUTE
INSTITUT DE GESTION AGROALIMENTAIRE

www.takeanewapproach.ca

Recordkeeping Programs

- **Pencil and Paper**
 - Ontario Farm Record Book (the Blue Book)
- **Excel spreadsheet based**
 - Ontario Farm Accounting Workbook
- **Generic accounting packages**
 - Quicken/Quickbooks
 - Sage (Simply) accounting
- **Ag specific accounting software**
 - AgExpert – FCC
 - CenterPoint Accounting



How do they compare?

	Blue Book	OFAW	Generic	AgExpert	CentrePoint
Taxes	Yes	Yes	Yes	Yes	Yes
Programs	No	No	No	T1163 AgStab	No
Accrual Statements	~Yes~	Yes	Quicken No Others Yes	Yes	Yes
COP	No	~Yes~	Some – Not per unit	Yes Some per unit	Yes
Link to Production	~Yes~	~Yes~	No	Yes	Yes
Management	No	No	No	Some	Yes
Your labour time	Highest	High	Medium	Low	Low
Price	\$20	\$0* (need Excel)	\$100 – 400	\$500	\$1200 - \$1400 +

- Farm Credit Canada's AgExpert
 - <http://www.fccsoftware.ca/en/index.asp>
- Oklahoma State University – Quicken
 - <http://www.agecon.okstate.edu/quicken/>
- Centrepoint Accounting for Agriculture
 - <http://www.redwingsoftware.com>
- Most software have free demo versions to download



Ontario Farm Accounting Workbook



Financial Recordkeeping and Cost of Production

Using COP to Your Business Advantage

Agricultural Management Institute Videos

FARM BUSINESS (eTeam Video Series

Canada



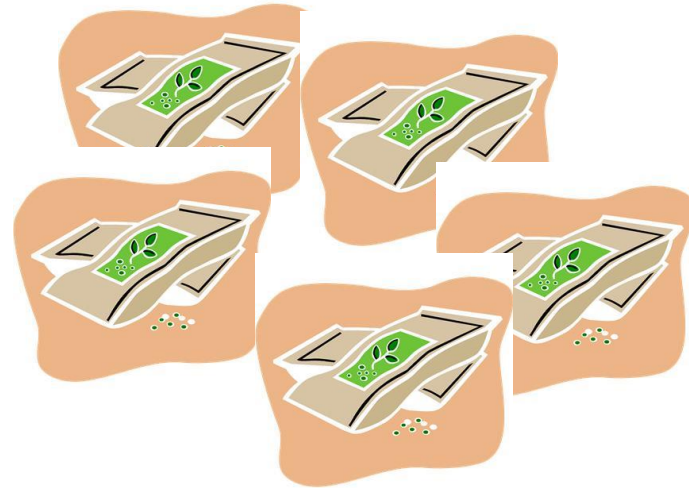
Ontario

Growing Forward 

www.takeanewapproach.ca

Anatomy of a COP budget

- **Revenue**
- **Direct Variable Costs** – direct inputs (seed, fertilizer, feed)



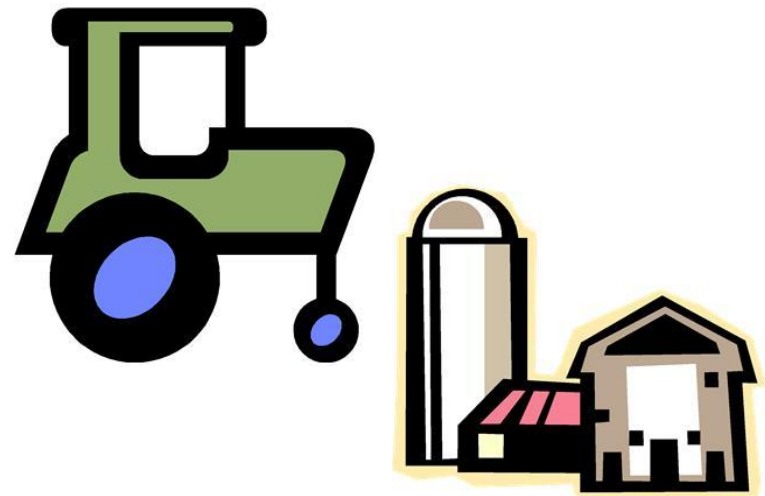
Anatomy of a COP budget

- **Indirect Variable Costs** - used in producing all commodities on the farm not specific to one commodity (examples: fuel, repairs, labour)



Anatomy of a COP budget

- **Fixed Costs** - remain the same regardless of the level of production (examples: Depreciation, Property Taxes, Term Interest, Insurance).



- **Profit (loss)** – Revenue minus all costs

How do I calculate MY COP?



**My own farm
numbers?**

Projections/estimates?



Estimating Costs

- Using on farm records
 - Direct costing
 - Allocate whole farm expenses
- Market value
 - Eg. Land rent
- Formula based
 - Eg. Machinery and buildings
- Production recipe approach



Calculate Your COP in Three Steps

T1163 to COP



Turn cash records into accrual... why?

$\frac{1}{2}$ # of bu

2016



Cost/
bu



$1 \frac{1}{2}$ x # of bu

2017



Cost/
bu



Turn cash records into accrual... why?

2016



2017



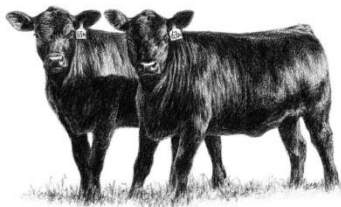
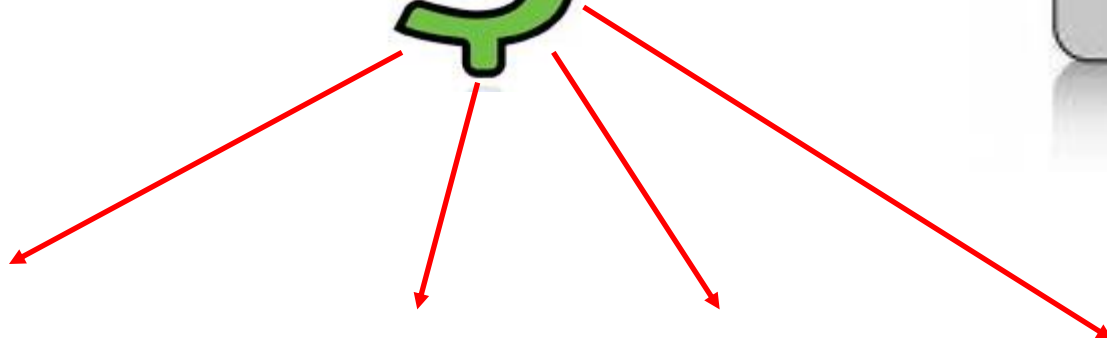
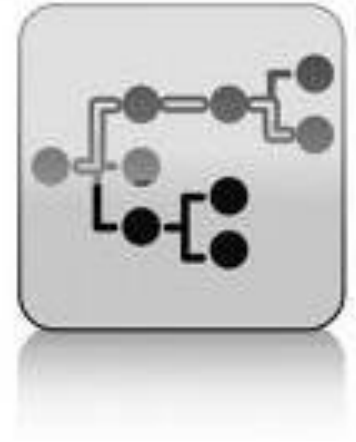
Beef Cow Herd

- **Accrual (pronounced 'a cruel') adjustments**



Step # 2 Break it down by enterprise

- Allocate whole farm \$



Keep it high level – avoid the weeds!

Allocation Methods

- Common allocation methods:
 - **Percent of sales**
 - Eg. overhead
 - **Percent of expenses**
 - Eg. Operating interest
 - **Time spent in the enterprise**
 - Eg. Labour
 - **Acre trips**
 - Eg. Machinery costs



Machinery costs - allocating farm records

- Acre trips

Crop 1	9	40%
Crop 2	7	30%
Crop 3	7	30%
Total	23	



Crop operations

Calculating new machinery costs

Agricultural Engineering formulas

- Variable (Operating) Costs
 - Fuel and Lubricants
 - Litres x Fuel Cost/L x 1.15(lubricants)
 - Diesel fuel consumption (L/hr)
 - » $0.167 \times \text{PTO HP/hr}$
 - Gasoline (L/hr)
 - » $0.229 \times \text{PTO HP/hr}$
 - Repairs
 - Purchase price x % repair rate (based on hours)
 - Labour
 - Wage rate x Hours



Calculating new machinery costs

- Fixed (Ownership) Costs

- Depreciation

$$\frac{\text{New price} - \text{trade in value}}{\text{Expected Life (Years)}}$$

- Interest

$$\frac{(\text{New price} + \text{trade in value}) \times \text{interest rate}}{2}$$

- Insurance and Housing

- 1% of Purchase Cost



Machinery Costs



Land Costs

- Land rent – preferred method for estimating cost
- Alternatively:
 - Use opportunity cost approach
 - What you would earn in next best alternative
 - Land value multiplied by interest on investment rate (GIC)
 - $\$10,000 \times 2.0\% = \$200 / \text{acre}$
- Using cash costs for land can underestimate the costs especially if there is not much debt or most land is owned



Feed Costs

- Purchased and homegrown
- Homegrown
 - Cropping costs left in livestock enterpriseOr
 - Cropping costs allocated out to crop enterprises and 'sold' to livestock enterprises



Step # 3 – Per unit basis

Unit produced versus Production Unit

- **Unit produced** is the output or yield
 - Per bushel or Per Calf



- **Production unit** is the base unit used to produce the output or yield
 - Per acre, Per Cow

Alfalfa hay cost of production



	Low	Average	High
Price \$/tonne *	\$126	\$178	\$244
Yield ** Tonnes/acre	1.3	2.2	3.0
Source: OMAFRA Statistics 2010 - 2015			
Yield: Algoma, Sudbury, Manitoulin			



Fencing Costs

- FenceCost_Anna2016_v2.xls



Feeder Cattle COP – Calf to Finish Budget



	Current	10 year Avg
600#	\$1.84	\$1.61
Finished	\$1.49	\$1.19
Source: Beef Farmers of Ontario		



Using COP...decision making



1. Enterprise mix



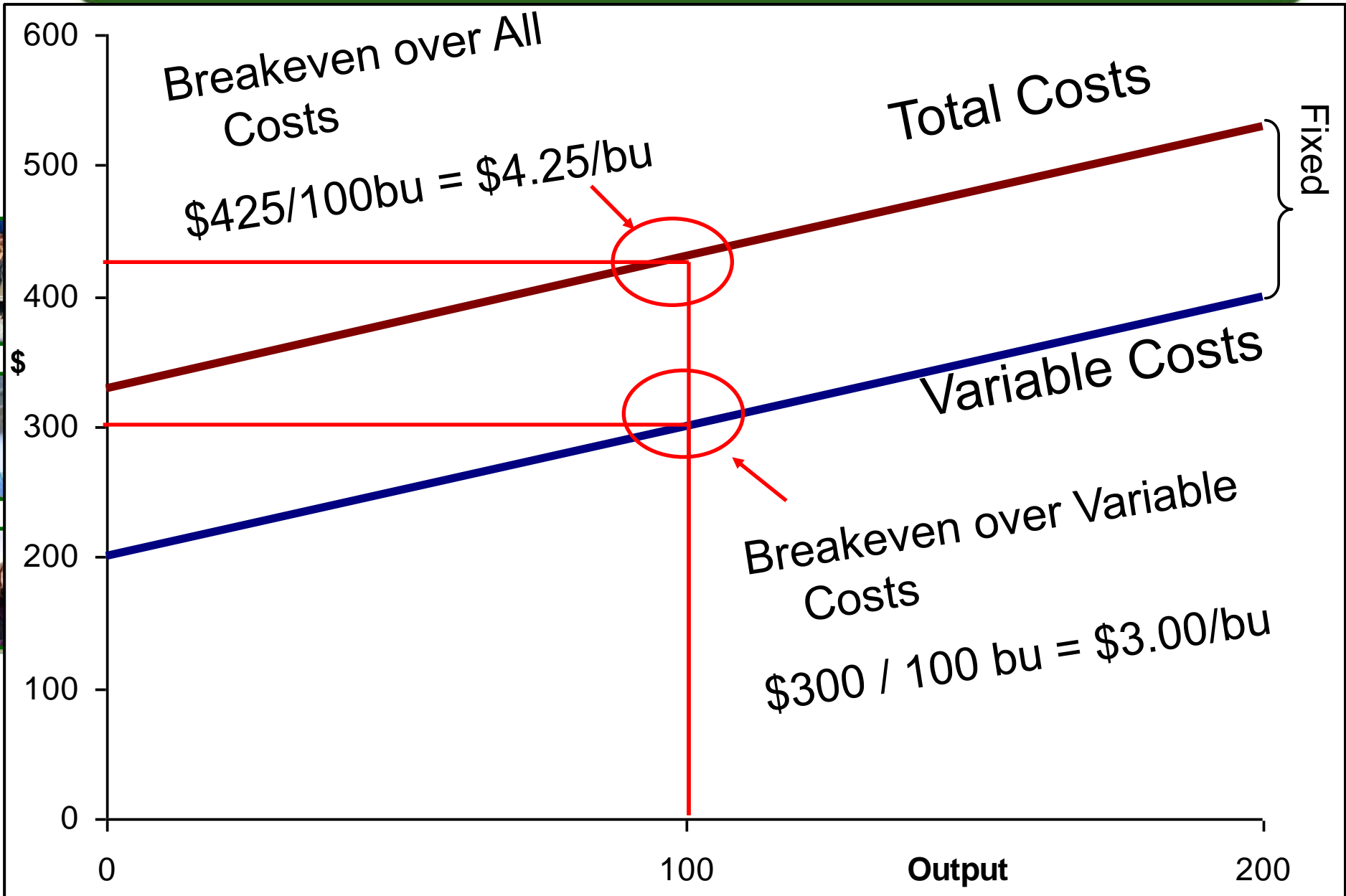
2. Marketing and input price targets



3. Capital Investment

- What you can afford to pay

Marketing Price Targets: Key Breakeven points



Meat processing



Investment Decisions

Buying vs Leasing Farm Equipment



Buy versus Lease



Cost of Production Summary

- Can be tough the first year
- Art versus Science
- Not cast in stone
- Year over year you can refine and develop records to capture what you need



Resources

- **OMAFRA Publications**

- Guide to Cost of Production Budgeting
- Budgeting Farm Machinery Costs
- Guide to Custom Farmwork and Short-term Equipment Rental
- www.ontario.ca/agbusiness

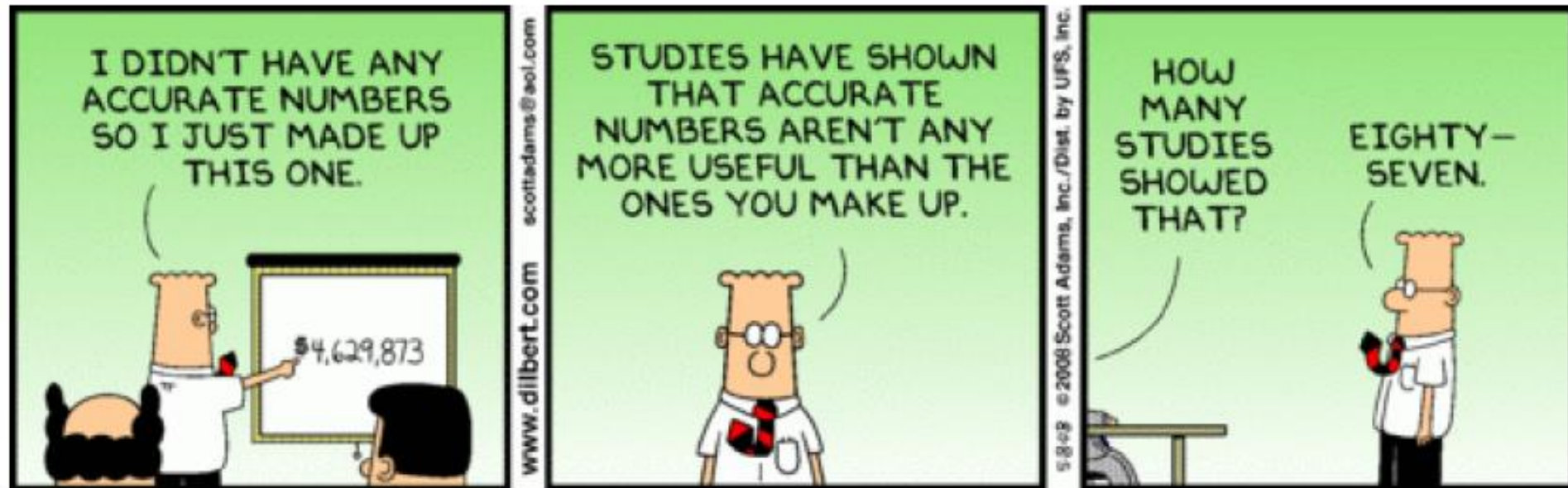


Resources



- **Ontario Enterprise Budgets – OMAFRA**
 - Enterprise budgets for crop and livestock enterprises available in Excel and Html format.
 - www.ontario.ca/agbusiness, select Cost of Production Budgets.
- **Farm Business Decision Calculators – OMAFRA**
 - Excel based calculators – machinery, land, investment, loan and more
 - www.ontario.ca/agbusiness
- **Statistics**
 - www.ontario.ca/agbusiness, select Resources >>> Statistics in left margin

Thank you...Questions?



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