

Examination of Blueberry Start-up Costs



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Row Crop vs Orchard

Enterprise Budgeting

Investment / Profit



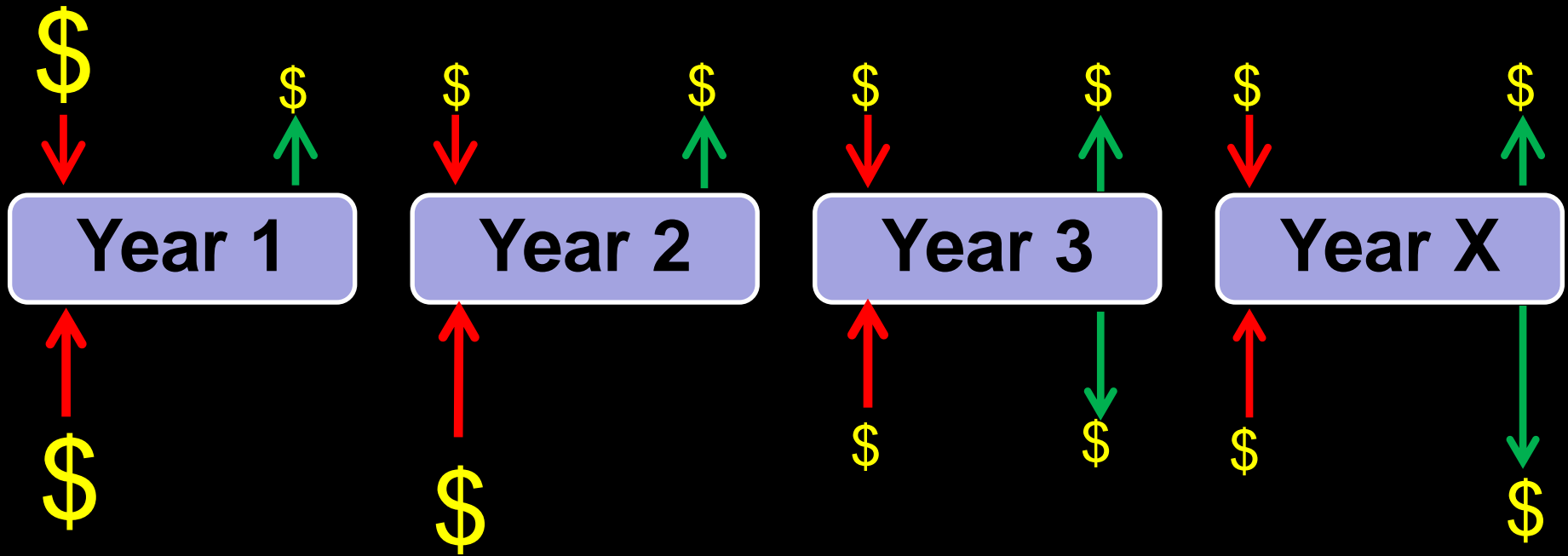
Differences

- Annuals vs perennials
- Annual planting vs replacement
- Production in 1st year vs “waiting”

Row Crop vs Orchard

(dollar flow)

Row Crop – start up

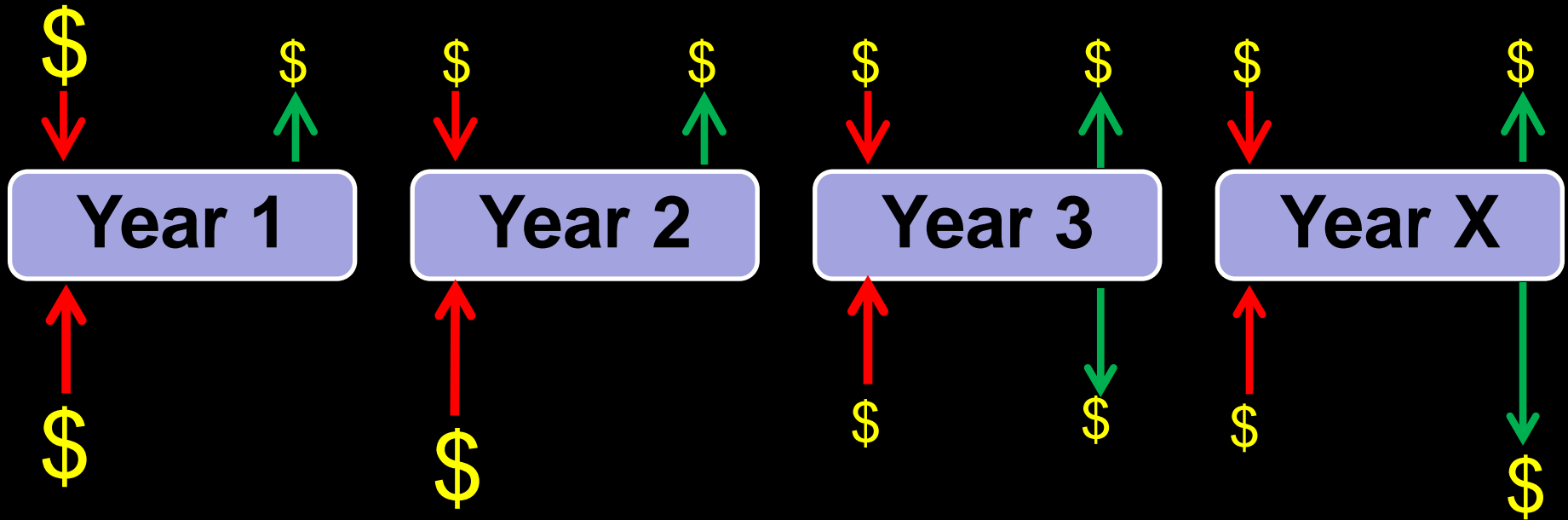


Orchard – start up

Row Crop vs Orchard

(dollar flow)

Row Crop – new row-crop enterprise



Orchard – new enterprise

Row Crop vs Orchard

(dollar flow)

Row Crop

- Annual operating inputs
- Annual level production

Orchard

- Preproduction operating inputs
- Annual operating inputs
- Zero to gradual then level production

Enterprise Budget

Planning tool

- \$ Foresee profit / loss per acre
- \$ Allocation of revenues and costs to the berries
- \$ Account for everything (economics)
- \$ More detail results in more accuracy and analysis options



Enterprise Budget

Basic

\$ Sales revenues

\$ Variable costs (change w/ production level)

\$ Fixed costs (no change w/ production level)

Breakevens

\$ $\text{Price} = (\text{VC} + \text{FC}) / \text{output}$

\$ $\text{Output} = (\text{VC} + \text{FC}) / \text{price}$

Sample Fresh-Market Highbush Blueberry Production Budget

Per-acre costs for land preparation, establishment, and mature production based on 6,000 pints (6,375 lbs) per acre

	Land preparation (year 0)	Your estimate	Planting establishment (year 1)	Your estimate	Mature planting (years 5+)	Your estimate
Variable costs						
Custom operations	\$125.70	_____	\$60.40	_____	\$7.25	_____
Fertilizer	\$287.00	_____	\$13.00	_____	\$42.25	_____
Herbicides	\$0.00	_____	\$97.45	_____	\$194.10	_____
Insecticides	\$0.00	_____	\$38.54	_____	\$68.92	_____
Fungicides	\$0.00	_____	\$0.00	_____	\$156.43	_____
Seed	\$36.60	_____	\$69.00	_____	\$0.00	_____
Plants	\$0.00	_____	\$5,002.50	_____	\$0.00	_____
Irrigation setup	\$0.00	_____	\$800.00	_____	\$0.00	_____
Irrigation operation	\$0.00	_____	\$300.00	_____	\$300.00	_____
Mulch	\$0.00	_____	\$250.00	_____	\$0.00	_____
Bee rental	\$0.00	_____	\$0.00	_____	\$65.00	_____
Plant analysis kit	\$0.00	_____	\$0.00	_____	\$24.00	_____
Personal protection equipment	\$0.00	_____	\$86.95	_____	\$100.05	_____
Labor						
Operator	\$0.00	_____	\$0.00	_____	\$0.00	_____
Hand labor	\$6.25	_____	\$893.64	_____	\$595.65	_____
Harvest labor	\$0.00	_____	\$0.00	_____	\$4,200.00	_____
Packaging supplies (clam shells and flats)	\$0.00	_____	\$0.00	_____	\$1,245.00	_____
Fuel	\$0.00	_____	\$11.09	_____	\$47.06	_____
Repairs and maintenance	\$0.00	_____	\$3.68	_____	\$22.19	_____
Interest	\$5.97	_____	\$279.16	_____	\$208.22	_____
<i>Total variable costs</i>	\$461.52	_____	\$7,905.41	_____	\$7,276.12	_____
Fixed costs						
Equipment	\$0.00	_____	\$10.74	_____	\$58.13	_____
Land	\$150.00	_____	\$150.00	_____	\$150.00	_____
<i>Total fixed costs</i>	\$150.00	_____	\$160.74	_____	\$208.13	_____
Total costs	\$611.52	_____	\$8,066.15	_____	\$7,484.25	_____

Enterprise Budget

(Preproduction)

Year 1 – soil prep year

\$ VC = soil test, sulfur, fertilizer, herbicide, grass seed, fuel, repairs & maint., labor, interest

\$ FC = insurance, machinery, land, taxes, int.

Year 2 – planting year

\$ VC = plants, fertilizer, mulch, herbicides, pruning, insecticides, irrigation, r&m, labor, interest

\$ FC = insurance, machinery, land, taxes, int.

Enterprise Budget

(Preproduction example)

Case farm

- 2 acres, already own basic equipment, specialized equipment to be purchased, existing irrigation system
- PYO – 3x12 spacing, 1210 plants
MF – 4x10 spacing, 1089 plants

Enterprise Budget

(Preproduction example)

		<u>PYO</u>	<u>MF</u>
Year 1	VC	\$ 816	\$ 816
	FC	<u>110</u>	<u>110</u>
		\$ 926	\$ 926
Year 2	VC	\$ 11,650	\$ 11,091
	FC	<u>250</u>	<u>275</u>
		\$ 11,900	\$ 11,366

Enterprise Budget

(Preproduction example)

	<u>PYO</u>	<u>MF</u>
Total Yr 1+2	\$ 12,826	\$ 12,292

Consider this the investment

Capitalize (amortize) over production years

Equipment Considerations

Own vs lease vs custom

- Total costs will not be much different
- Availability of specialized machinery?
- Ownership encourages expansion for economies of size
- Lease & custom less risky
- Sec. 179 only available in production years

How do you know if you are profitable?

\$ Profit = Income – Expenses

\$ ALL expenses attributable to the enterprise

\$ Economics not accounting

\$ Don't forget to pay yourself

\$ Brain labor more valuable than sweat labor

\$ Money to be used to grow the business
not just maintain

Net Present Value

\$ what is a dollar received later worth today ?

\$ $NPV = Y_0 + Y_1 + Y_2 + \dots + Y_n$

\$ $Y_n = (\text{Net returns in year } n) \div (1 + r)^n$

\$ If $NPV > 0$, invest

\$ If $NPV < 0$, don't invest

How do you know if you are profitable?

- \$ Keep records...track your expenses
- \$ Determine your breakevens
- \$ Cash flow (educate your banker)
- \$ System (paper or computer) ?
 - \$ Business analysis



Can you be competitive and make money?

Summary

(Take home points)

- Blueberries differ from Row Crops
- Enterprise budget
- Large initial investment with delayed returns
- Equipment ownership, lease or custom
- Net Present Value (Invest or Avoid?)
- Records

Examples:

- Oklahoma State University
- University of Kentucky
- Mississippi State University
- *Highbush Blueberry Production Guide*

Software:

www.agecon.okstate.edu/budgets (\$)

www.agecon.msstate.edu/what/farm/generator/

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