

Managing Overhead Costs Hay Production

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Cow-Calf profitability Conferences



University of Kentucky
College of Agriculture,
Food and Environment
Cooperative Extension Service



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Agricultural Economics at UK | www.agecon.ca.uky.edu

Cooperative
Extension Service

Cost Range per Cow (year)

Cost	Low	Med	High	Range
Cow Depr/Interest	\$100	\$125	\$175	\$75
Hay	\$50	\$175	\$300	\$250
Pasture Fencing	\$10	\$45	\$80	\$70
Pasture Fert/Clip	\$10	\$45	\$80	\$70
Breeding	\$25	\$50	\$75	\$50
Vet/Medicine	\$20	\$30	\$40	\$20
Mineral	\$20	\$30	\$40	\$20
Other Mach Variable	\$5	\$10	\$20	\$15
Other Depr/Interest	\$10	\$35	\$80	\$70
Other Costs	\$30	\$40	\$50	\$20

Hay Production Costs

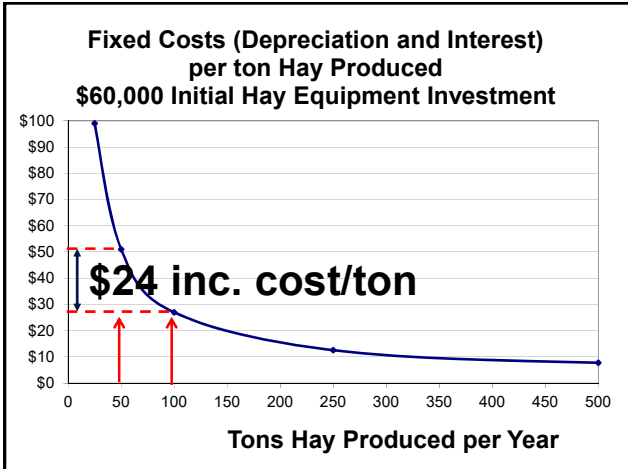
<u>Cost Type:</u>	<u>Cost per Ton:</u>
Fuel	\$6-8
Repairs-Maintenance	\$4-10
Labor	\$6-10
Land	\$5-15
Fertilizer	\$5-25
Depreciation/Interest	\$10-50

\$60,000 Capital Outlay Hay Equipment				
Equipment	Purchase Price (Used)	Percent Cattle	Percent Hay	Hay Capital
Tractor 1	\$35,000	60%	40%	\$14,000
Tractor 2	\$18,000	60%	40%	\$7,200
Tractor 3	\$9,500	60%	40%	\$3,800
Baler	\$16,000	0%	100%	\$16,000
Mower	\$10,000	0%	100%	\$10,000
Rake	\$3,000	0%	100%	\$3,000
Wagon(s)	\$3,000	0%	100%	\$3,000
Misc Hay Equip.	\$3,000	0%	100%	\$3,000
Totals	\$97,500			\$60,000

\$60K Example

Depreciation Assumptions:

Base Depreciation/year	\$600
Depreciation/ton	\$3.00/ton
Interest Rate	3%



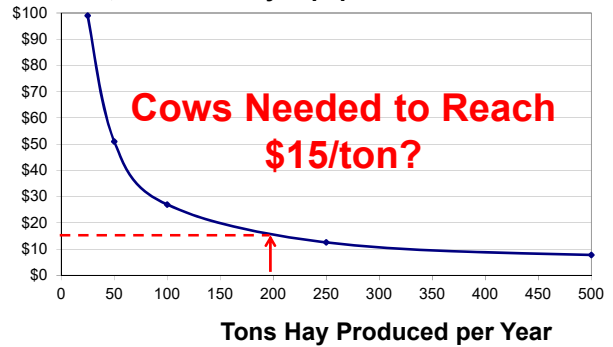
Why are Fixed Costs So High?

- Farm is overcapitalized
 - Too much machinery
 - Not used enough

**Fixed Costs - Per Ton of Hay Produced
\$60,000 Initial Hay Equipment Investment**

Tons Hay Produced	Base Depr. per Year	Use Depr. per Year	Interest per Year	Total Fixed Costs per Year	Fixed Costs per Ton Produced
50	\$600	\$150	\$1,800	\$2,550	\$51
100	\$600	\$300	\$1,800	\$2,700	\$27
250	\$600	\$750	\$1,800	\$3,150	\$13
500	\$600	\$1,500	\$1,800	\$3,900	\$8
1000	\$600	\$3,000	\$1,800	\$5,400	\$5

**Fixed Costs (Depreciation and Interest)
per ton Hay Produced
\$60,000 Initial Hay Equipment Investment**



**\$40,000 Capital Outlay
Hay Equipment**

Equipment	Purchase Price (Used)	Percent Cattle	Percent Hay	Hay Capital
Tractor 1	\$27,000	60%	40%	\$10,800
Tractor 2	\$13,000	60%	40%	\$5,200
Tractor 3	\$0	0%	100%	\$0
Baler	\$11,000	0%	100%	\$11,000
Mower	\$7,000	0%	100%	\$7,000
Rake	\$2,500	0%	100%	\$2,500
Wagon(s)	\$1,500	0%	100%	\$1,500
Misc Hay Equip.	\$2,000	0%	100%	\$2,000
Totals	\$64,000			\$40,000

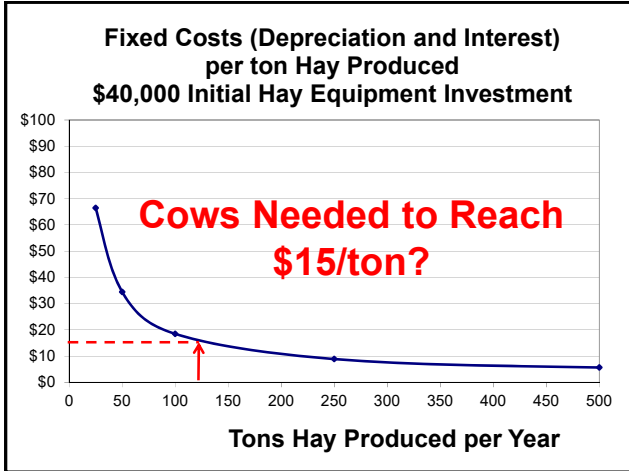
\$40K Example

Depreciation Assumptions:

Base Depreciation/year \$400

Depreciation/ton \$2.50/ton

Interest Rate 3%



**\$20,000 Capital Outlay
Hay Equipment**

Equipment	Purchase Price (Used)	Percent Cattle	Percent Hay	Hay Capital
Tractor 1	\$8,000	60%	40%	\$3,200
Tractor 2	\$4,000	60%	40%	\$1,600
Tractor 3	\$0	0%	100%	\$0
Baler	\$7,500	0%	100%	\$7,500
Mower	\$5,000	0%	100%	\$5,000
Rake	\$1,500	0%	100%	\$1,500
Wagon(s)	\$500	0%	100%	\$500
Misc Hay Equip.	\$700	0%	100%	\$700
Totals	\$27,200			\$20,000

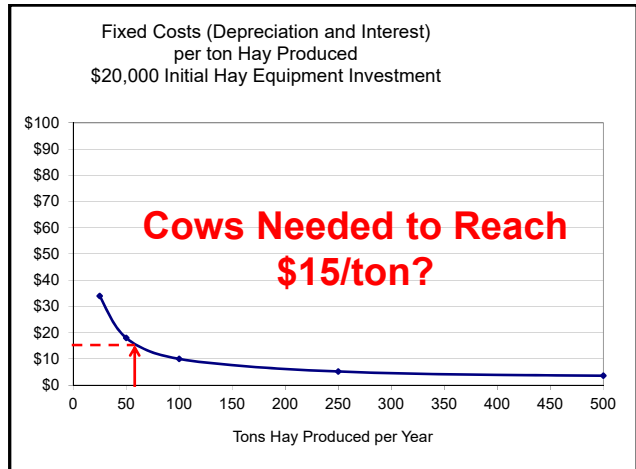
\$20K Example

Depreciation Assumptions:

Base Depreciation/year \$200

Depreciation/ton \$2.00/ton

Interest Rate 3%



**John Deere 3020
1972 Purchase**

Purchase Price (1972)	\$10,000
Buy Today	\$10,000
Purchase Price (2021 \$'s)	\$64,000

Did Tractor Depreciate?

