



The Cost of Producing Pork in a Hoop Bedded Production System

James Kliebenstein, Professor, Department of Economics

Denis Reich, Research Assistant, Department of Economics

Benjamin Larson, Former Research Assistant, Department of Economics

Mark Honeyman, Professor, Department of Animal Science

Arlie Penner, Research Associate, Department of Animal Science

Iowa State University

Summer Productivity Information

Item	Hoop		
	Average	High	Low
Hogs (total)	1321		
Death loss, %	2.15	2.93	1.54
Cull loss, %	1.67	3.29	0.00
% Hogs marketed	96.57	98.00	95.18
Feed efficiency	2.96	2.96	2.96
Average daily gain	1.76	1.82	1.72
Carcass yield, %	73.87	74.96	72.77

Winter Productivity Information

Item	Hoop		
	Average	High	Low
Hogs	1143		
Death loss, %	3.88	5.62	1.66
Cull loss, %	0.76	1.96	0.00
% Hogs marketed	95.36	98.01	93.68
Feed efficiency	3.39	3.58	3.05
Average daily gain	1.67	1.83	1.46
Carcass yield, %	75.82	76.60	75.34

Full-Year Productivity Information

Item	Hoop		
	Average	High	Low
Hogs	2464		
Death loss, %	3.02	5.62	1.54
Cull loss, %	1.22	3.29	0.00
% Hogs marketed	95.96	98.01	93.68
Feed efficiency	3.17	3.58	2.96
Average daily gain	1.71	1.83	1.46
Carcass yield, %	74.85	76.60	72.77

Summer Swine Grow Finish Production Budget

Item	Hoop
Facility investment	
Building (per hog space)	\$55.00
Feed & manure handling	\$36.00
Total initial investment	\$91.00
Turns/year	2.56
Total initial investment per turn	\$35.63
Fixed cost	
% Interest taxes, depreciation, insurance	16.5
Fixed cost per hog marketed	\$6.09

Summer Swine Grow Finish Production Budget (cont'd)

Operating costs

Feeder pigs	\$38.00
Feeder pig death loss	\$1.48
Interest on feeder pig	\$1.31
Fuel repairs utilities	\$1.04
Bedding	\$3.55
Feed (\$.06/lb)	\$38.99
Vet/med	\$1.55
Interest on mixed costs	\$0.78
Marketing costs	\$1.51
Labor	\$2.80
Operating cost per hog marketed	\$91.01
Total cost per hog marketed	\$96.98
Revenue from \$60 per hundred carcass weight	\$112.02
Net income per hog marketed	\$15.79

Winter Swine Grow Finish Production Budget

Item	Hoop
Facility investment	
Building (per hog space)	\$55.00
Feed & manure handling	\$36.00
Total initial investment	\$91.00
Turns/year	2.51
Total initial investment per turn	\$36.86
Fixed cost	
% Interest taxes, depreciation, insurance	16.5
Fixed cost per hog marketed	\$6.39

Winter Swine Grow Finish Production Budget (cont'd)

Operating costs

Feeder pigs	\$38.00
Feeder pig death loss	\$1.88
Interest on feeder pig	\$1.33
Fuel repairs utilities	\$1.05
Bedding	\$4.83
Feed (\$.06/lb)	\$44.51
Vet/med	\$1.57
Interest on mixed costs	\$0.91
Marketing costs	\$1.54
Labor	\$2.83
Operating cost per hog marketed	\$98.45
Total cost per hog marketed	\$104.85
Revenue from \$60 per hundred carcass weight	\$115.60
Net income per hog marketed	\$11.12

Full-Year Swine Grow Finish Production Budget

Item	Hoop
Facility investment	
Building (per hog space)	\$55.00
Feed & manure handling	\$36.00
Total initial investment	\$91.00
Turns/year	2.54
Total initial investment per turn	\$36.24
Fixed cost	
% Interest taxes, depreciation, insurance	16.5
Fixed cost per hog marketed	\$6.24

Full-Year Swine Grow Finish Production Budget (cont'd)

Operating costs

Feeder pigs	\$38.00
Feeder pig death loss	\$1.68
Interest on feeder pig	\$1.32
Fuel repairs utilities	\$1.04
Bedding	\$4.19
Feed (\$.06/lb)	\$41.75
Vet/med	\$1.56
Interest on mixed costs	\$0.85
Marketing costs	\$1.53
Labor	\$2.82
Operating cost per hog marketed	\$94.73
Total cost per hog marketed	\$100.92
Revenue from \$60 per hundred carcass weight	\$113.81
Net income per hog marketed	\$13.46

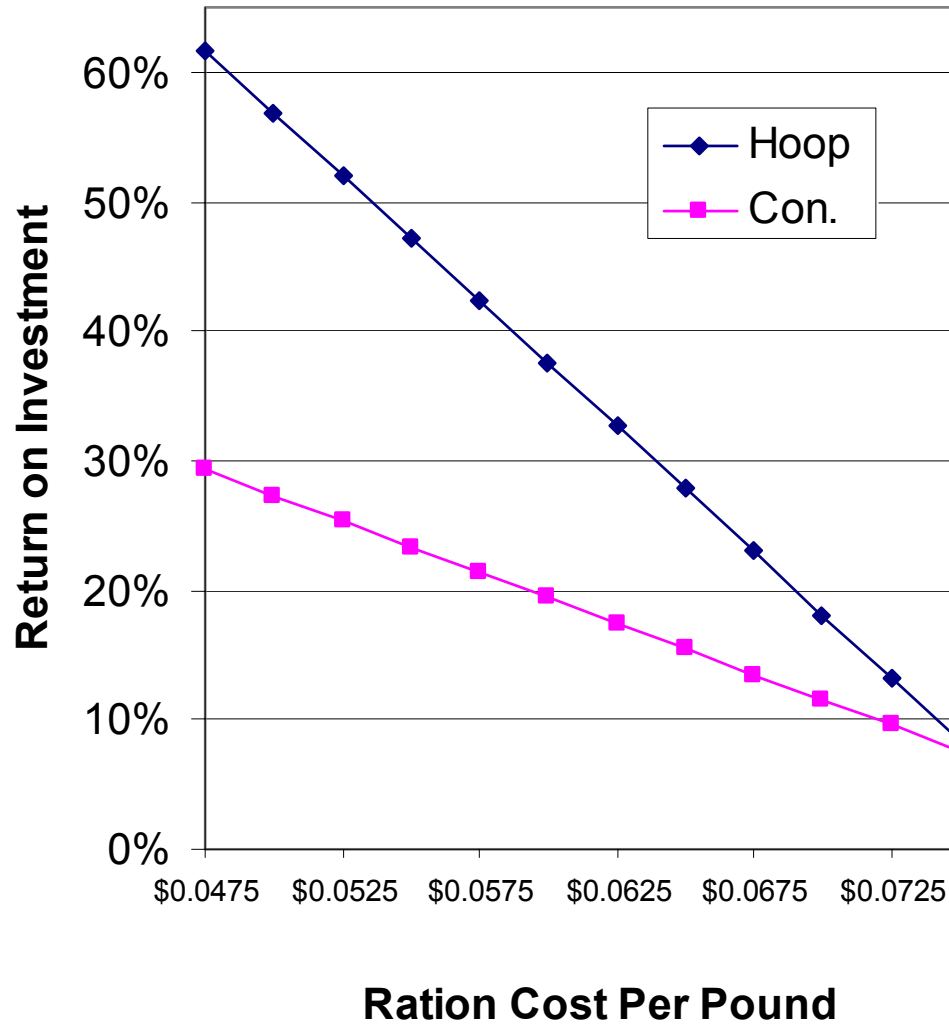
Productivity Information for Hoop Facilities with Different Pig Space Allocation

	Pig Space		
	9 sq. ft.	10.5 sq. ft.	12 sq. ft.
Number of pigs	143	143	143
Total bedding	25345	28645	30040
Death loss %	4.20	1.40	2.10
Percent pigs marketed	95.80	98.60	97.90
Average daily gain	1.60	1.67	1.68
Feed efficiency	3.00	2.88	2.86
Carcass yield	78.87	77.87	78.10

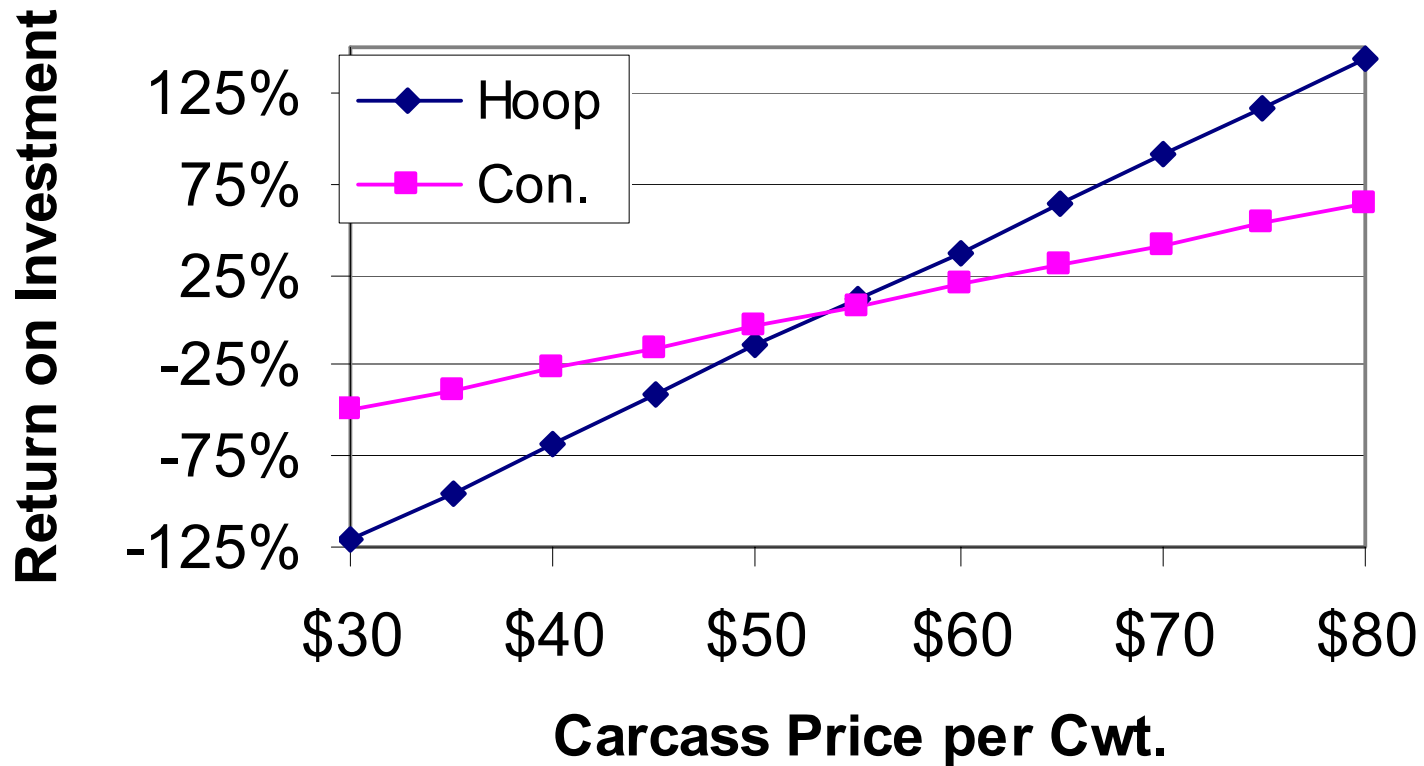
Grow finish Production Budget for Summer Group

	Pig Space		
	9 sq. ft.	10.5 sq. ft.	12 sq. ft.
Fixed cost			
Facility cost per hog marketed	\$5.54	\$6.15	\$6.49
Fixed cost per cwt marketed	\$2.37	\$2.46	\$2.68
Total operating cost per hog marketed	\$87.54	\$88.07	\$86.91
Operating costs/cwt marketed	\$37.44	\$35.31	\$35.89
Total cost per hog marketed	\$93.07	\$94.22	\$93.40
Revenue with market price \$60 per cwt	\$110.82	\$116.62	\$113.19
Net revenue	\$17.74	\$22.41	\$19.79

Return on Investment for Selected Ration Costs by Production System



Return on Investment for Selected Carcass Prices by Production Systems




Swine Gestation – Farrowing Production Cost

■ Sows	100
■ Litters per sow	2
■ Pigs weaned per litter	8.5
■ Fixed cost per pig	\$11.24
■ Variable cost per pig	\$19.02
■ Total cost per pig	\$30.26



Production Economics in the Allocation of Resources to Achieve an End

- Scarc Resources
- What is most limiting?
 - Capital
 - Labor
 - Environment
 - Energy




■ Production system analysis needs to expand beyond 'bottom line \$' as the sole decision criteria.

Air quality

Water quality

Animal welfare

Energy efficiency

- 
- If society and or consumers want it, are they willing to pay for it?



For an industry to be sustainable it needs to be:

- Environmentally sound
- Socially acceptable
- Economically profitable