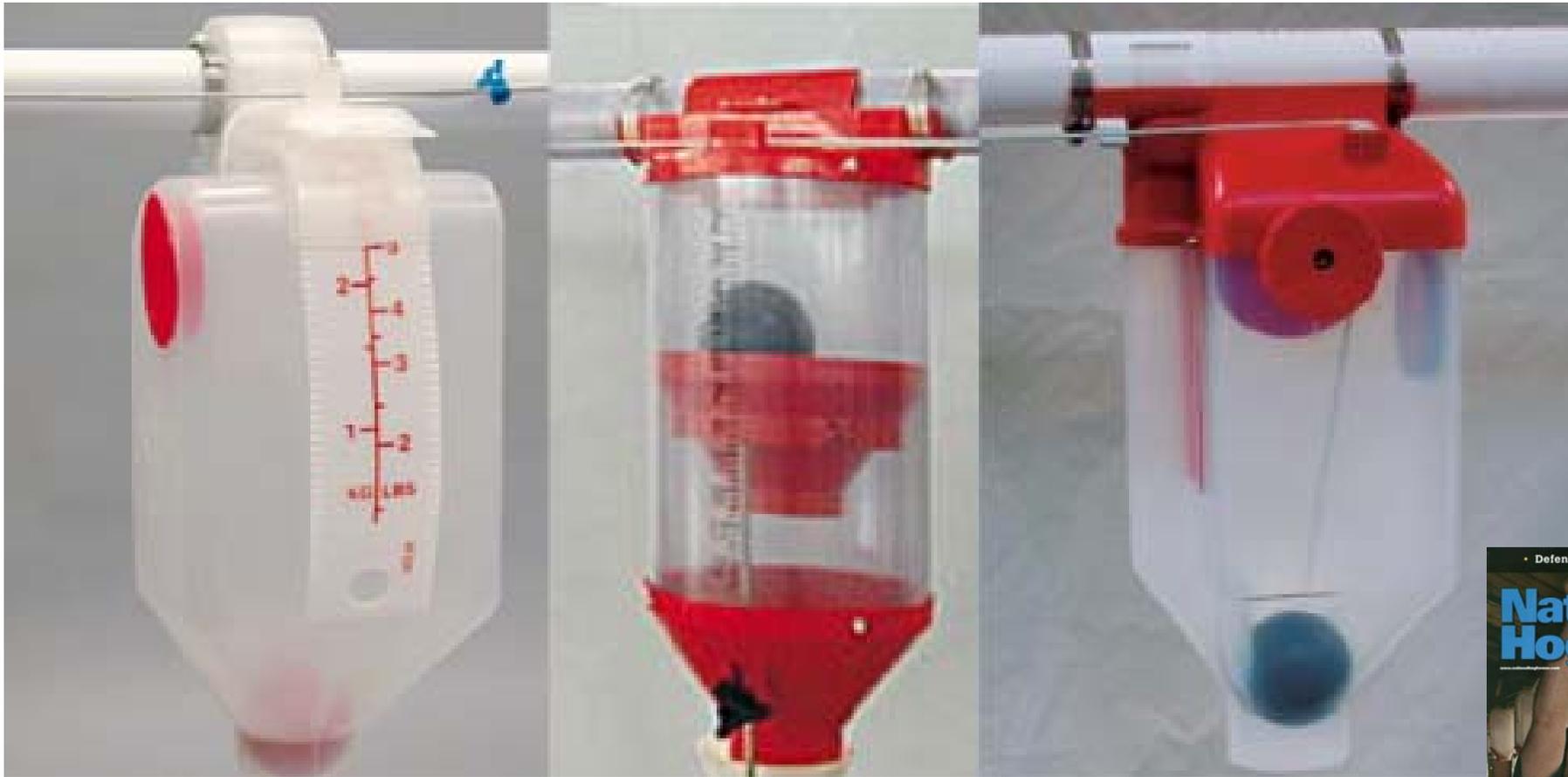
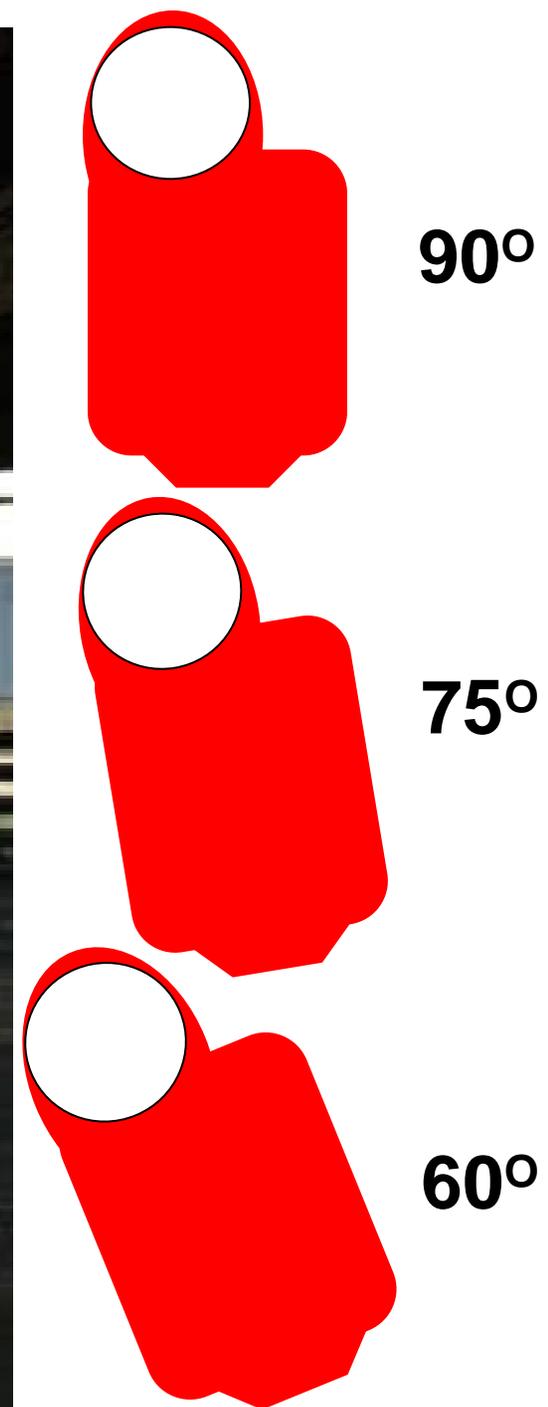




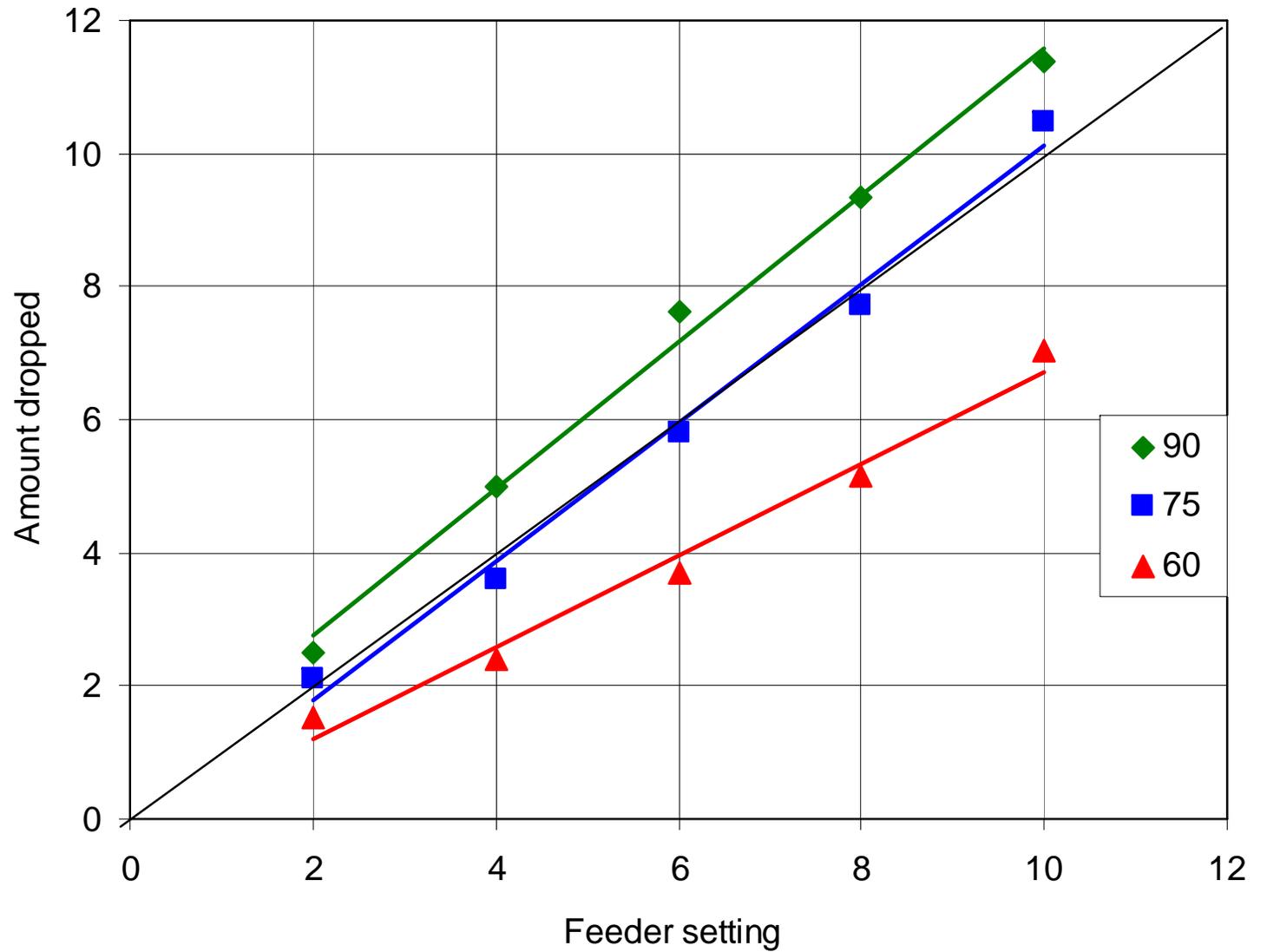
How accurate are different feed drops?





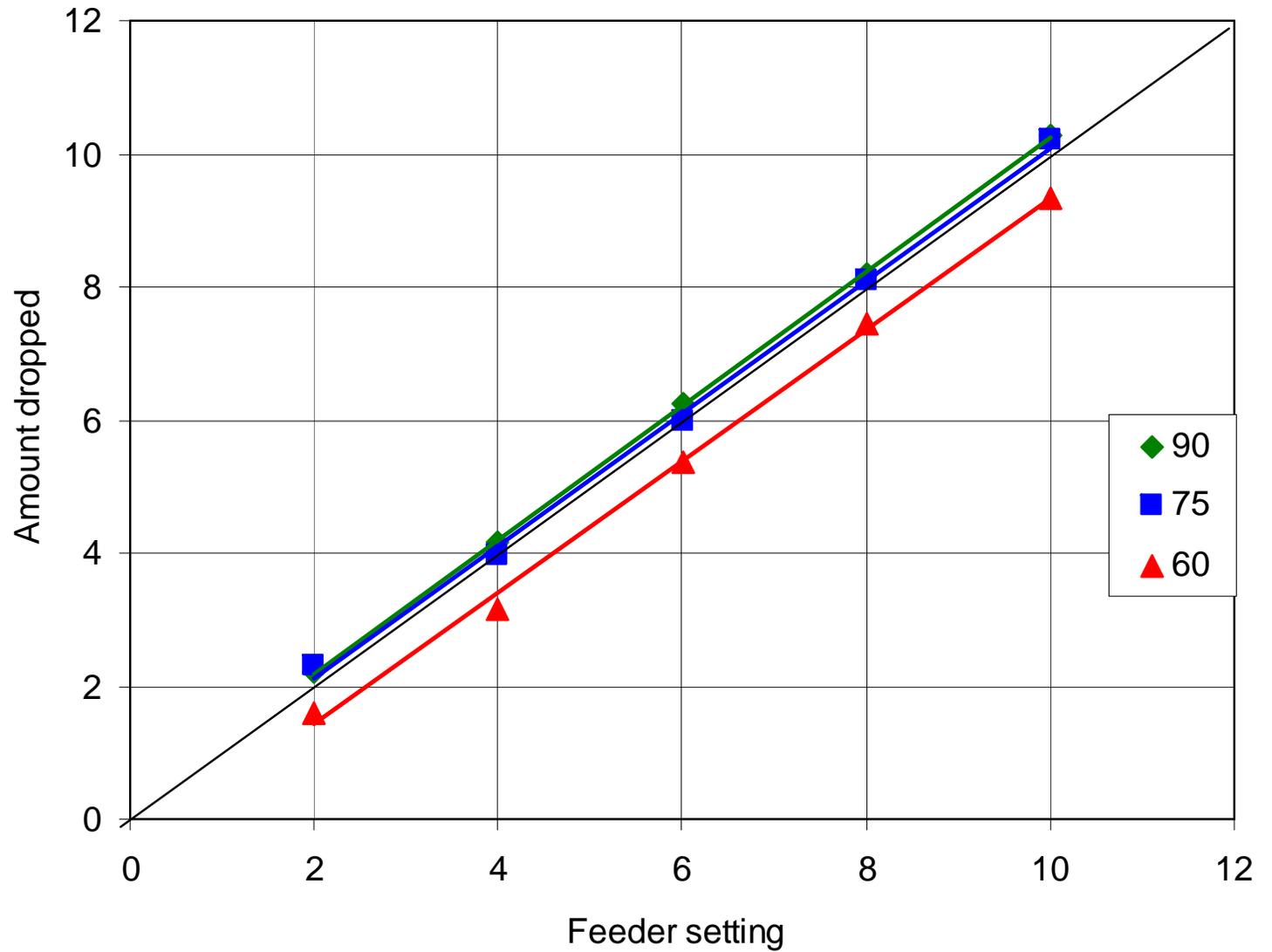


Econo-Drop Feed Dispenser



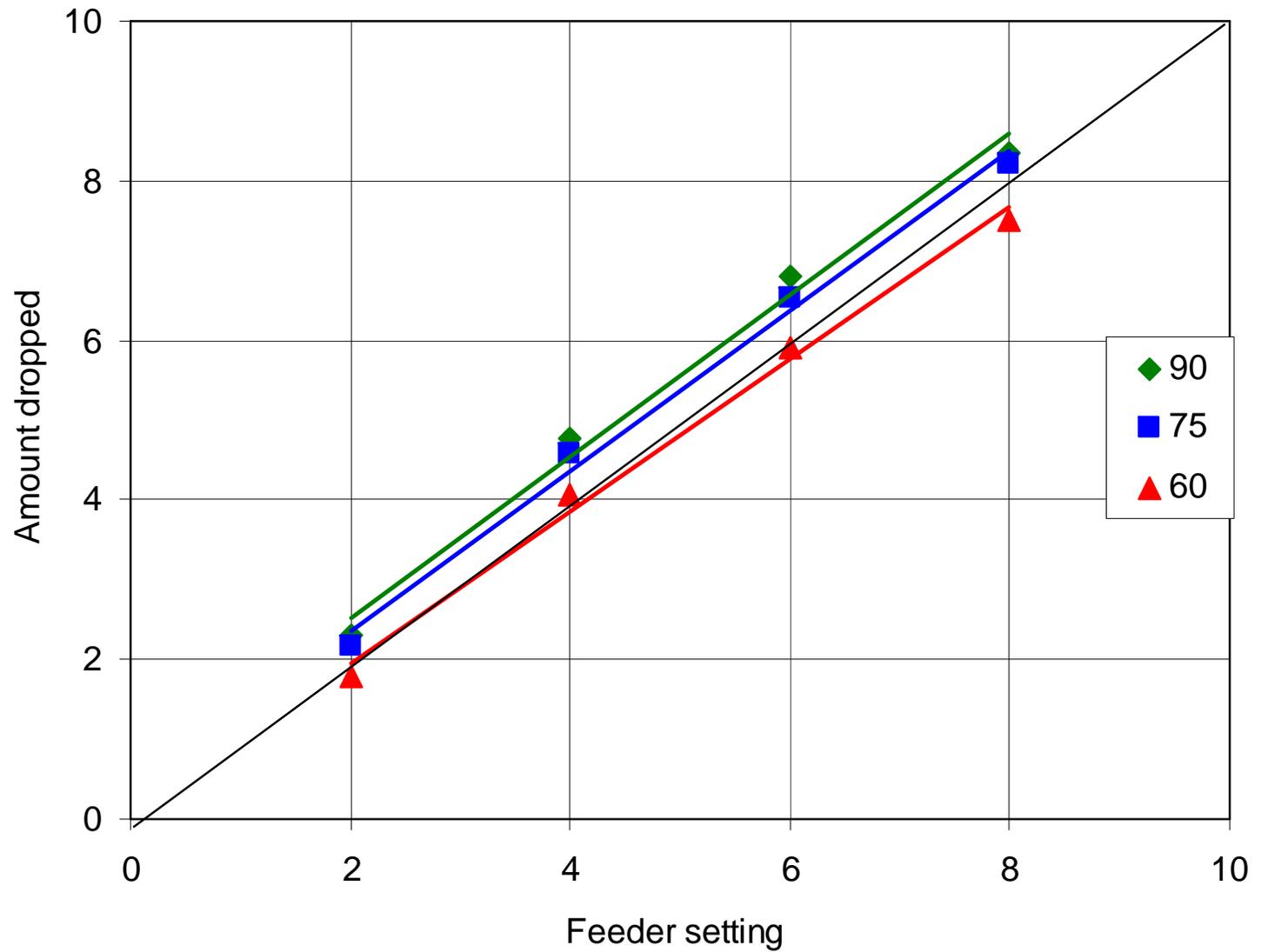


Accu-Drop Feed Dispenser





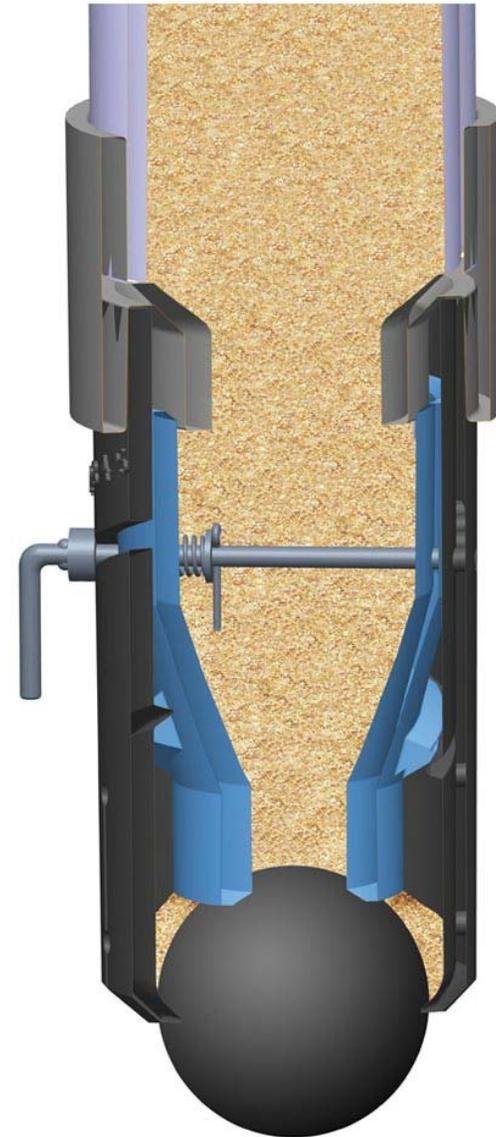
Ultra-Drop Feed Dispenser



Berry sow feeder



Intak feeder



Automating sow lactation feeding idea from Iowa Select Farms



Beveled PVC screwed into sleeve tube
welded into feeder



Second view

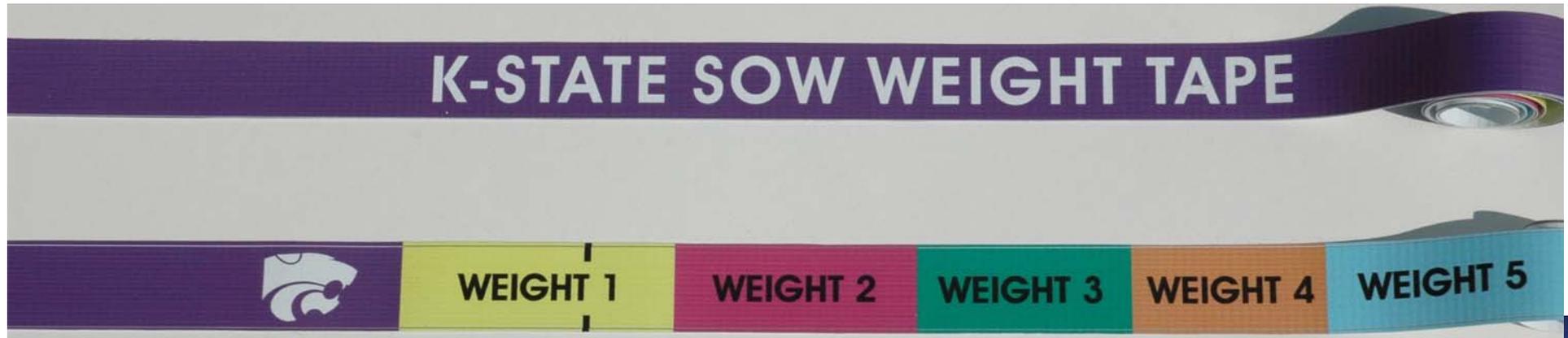


Now connecting to line directly
without the feed box





Flank measurement to set feeding levels



$$BW^{0.333} \text{ in kg} = 0.0511 \times \text{Flank-to-flank, cm} + 0.5687$$

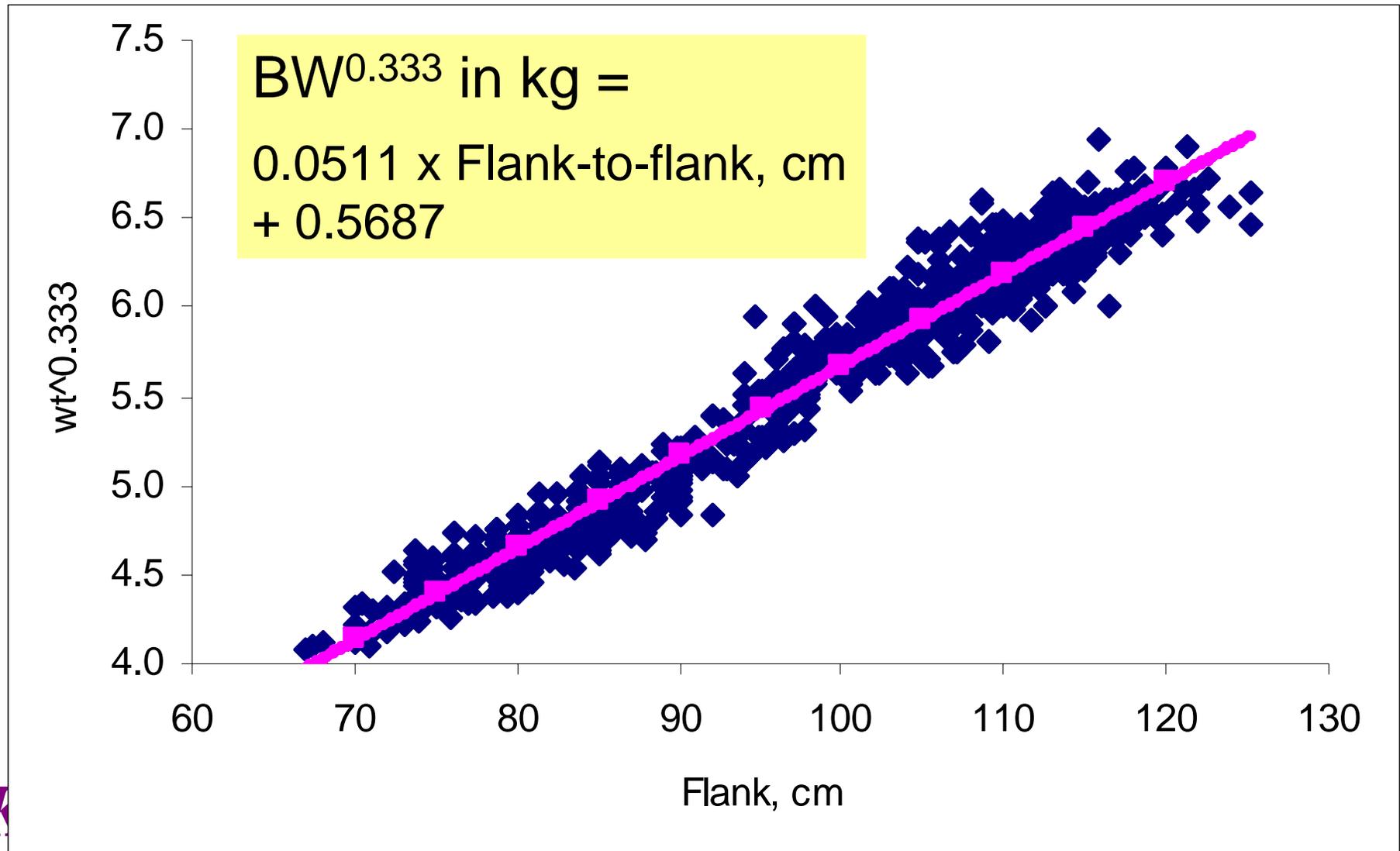




Using the
weight tape



Relationship between flank measurement and body weight



Flank-to-flank	Weight
inches	lb
25	122
26	135
27	149
28	164
29	179
30	196
31	214
32	232
33	252
34	273
35	294
36	317

Flank-to-flank	Weight
inches	lb
37	342
38	367
39	394
40	421
41	451
42	481
43	513
44	546
45	580
46	616
47	654
48	693

Feeding of group-housed gestating sows

Conceived by: Dr. Steve Henry and innovative Kansas producers

Concept: Divide feed allotment into
5 to 7 feedings per day

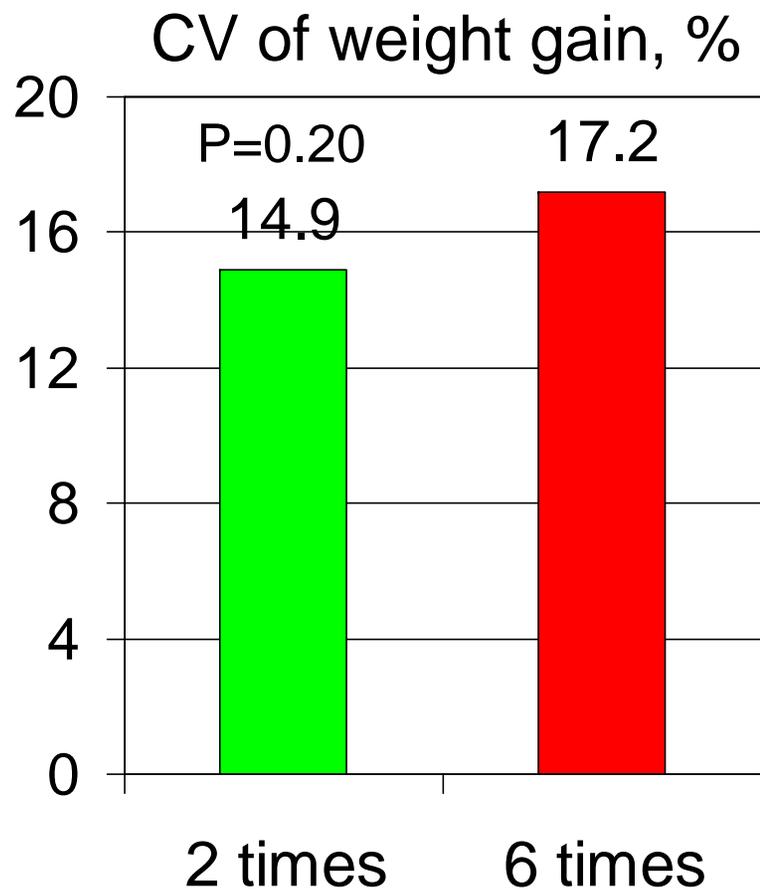
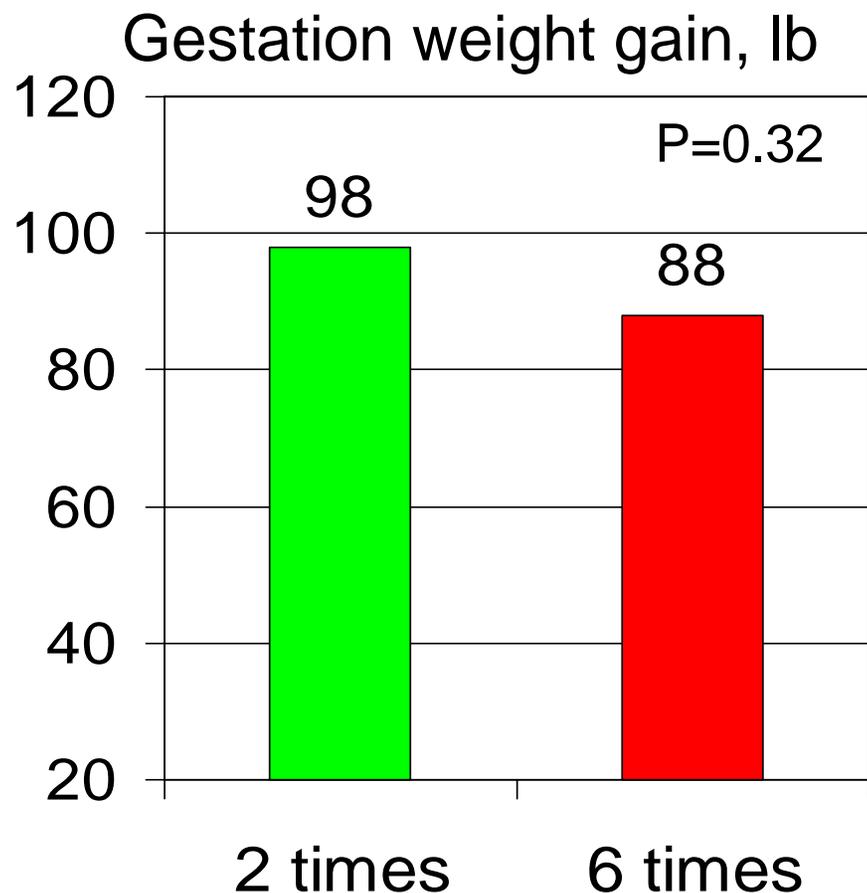
Initial response: Producers love it!

They believe there is less fighting
and less variation in weight gain

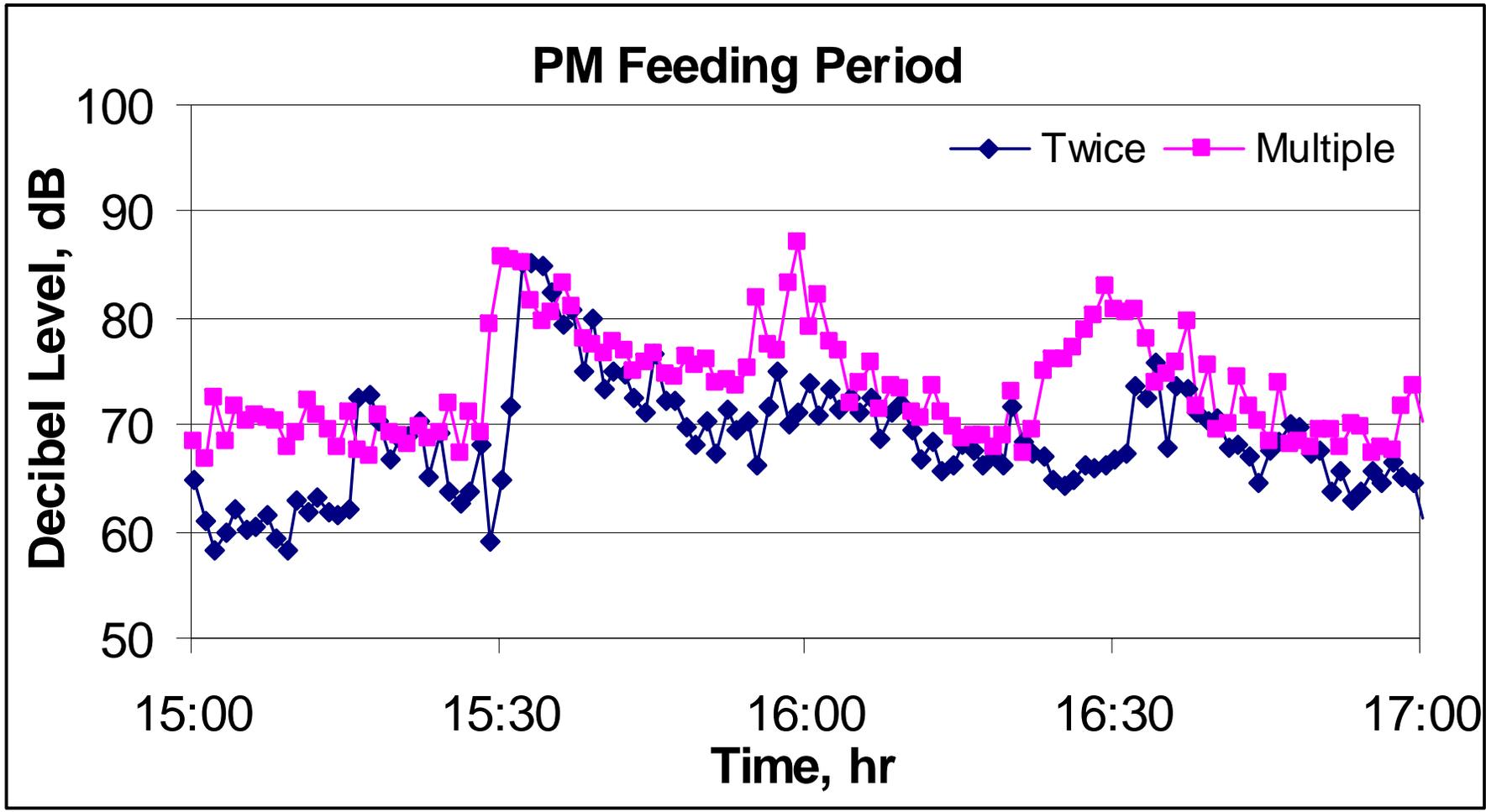
Research plans: We will be testing
the concept in the near future.



Effect of feeding frequency on gestating sow performance



Effect of feeding frequency on gestating sow vocalization



Effect of feeding frequency on gestating sow and gilt structure and aggressiveness

	<u>Aggressiveness</u>	<u>2 times</u>	<u>6 times</u>	<u>SE</u>	<u>P <</u>
Sows	Skin	1.51	1.34	0.04	0.01
	Vulva	1.08	1.03	0.02	0.04
	<u>Structure</u>				
	Feet/Leg	1.21	1.12	0.03	0.01
	Hoof	1.05	1.01	0.01	0.02
Gilts	<u>Aggressiveness</u>				
	Skin	1.22	1.27	0.04	0.22
	Vulva	1.12	1.12	0.01	0.92
	<u>Structure</u>				
	Feet/Leg	1.09	1.11	0.01	0.12
Hoof	1.04	1.04	0.01	0.86	

Small, but significant responses in sows.

Schneider et al., 2006

Conclusion from 2 versus 6 times feeding

Gilts:

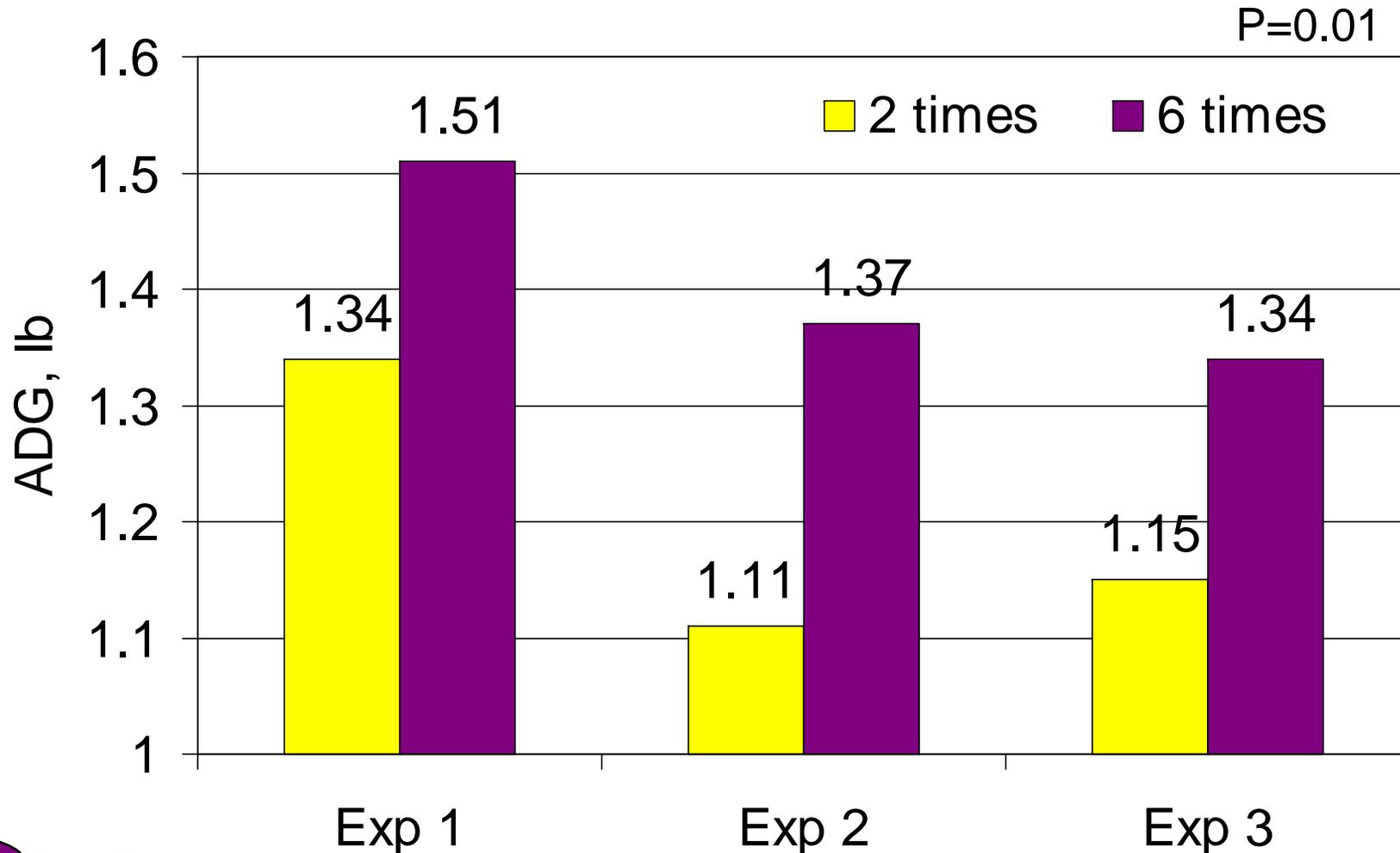
- Few growth, farrowing, or aggression differences

Sows:

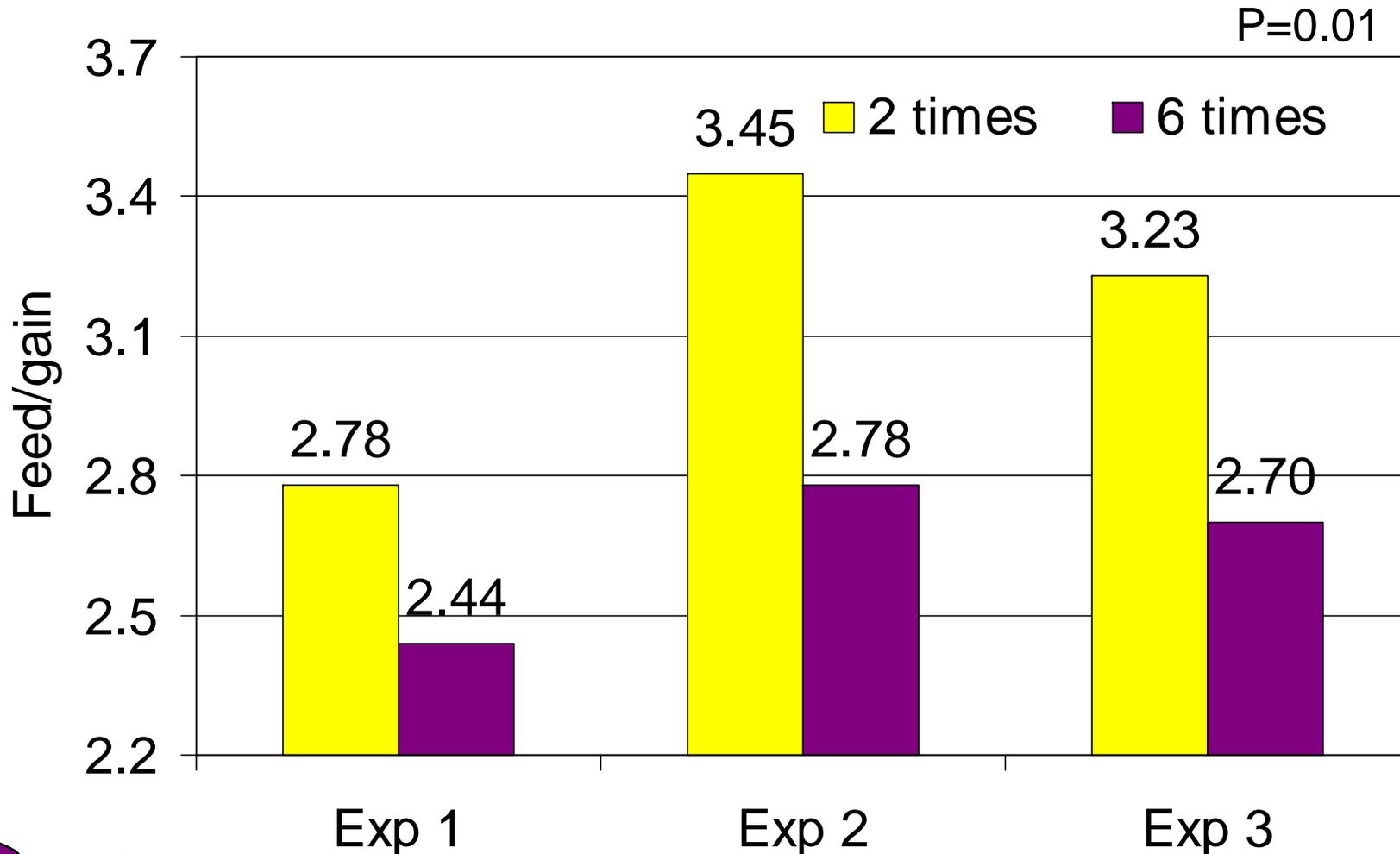
- Few growth or farrowing performance differences.
- Feeding six times per day did result in a small but significant reduction in skin and vulva lesions and structural problem scores while increasing vocalization.

Increasing the feeding frequency from two to six times per day does not appear to have a dramatic negative or positive impact on performance or welfare of group housed gilts and sows.

Effect of feeding frequency on growing pig (150 lb) performance



Effect of feeding frequency on growing pig (150 lb) performance



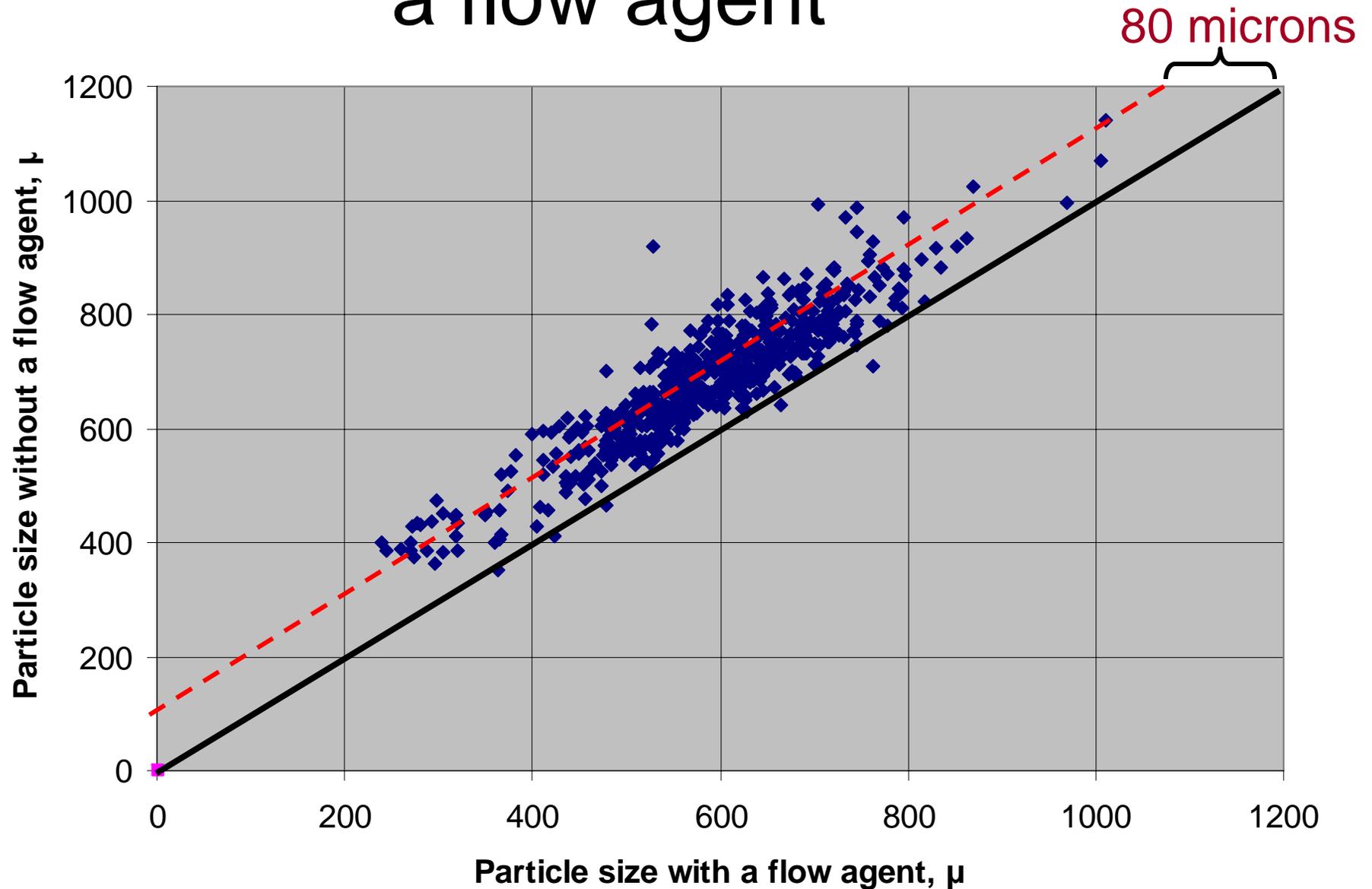


What to do with High Grain Prices?

- ❖ Other ingredients follow grain price
- ❖ Added Fat – right now, best option
- ❖ Dried whey and Corn?
 - ❖ Work with what you have: Improve F/G
 - ❖ Particle size & thorough mixing
 - ❖ Feed budgets
 - ❖ Feeder management
 - ❖ Genetics
 - ❖ Watch market weights



Particle size results with and without a flow agent



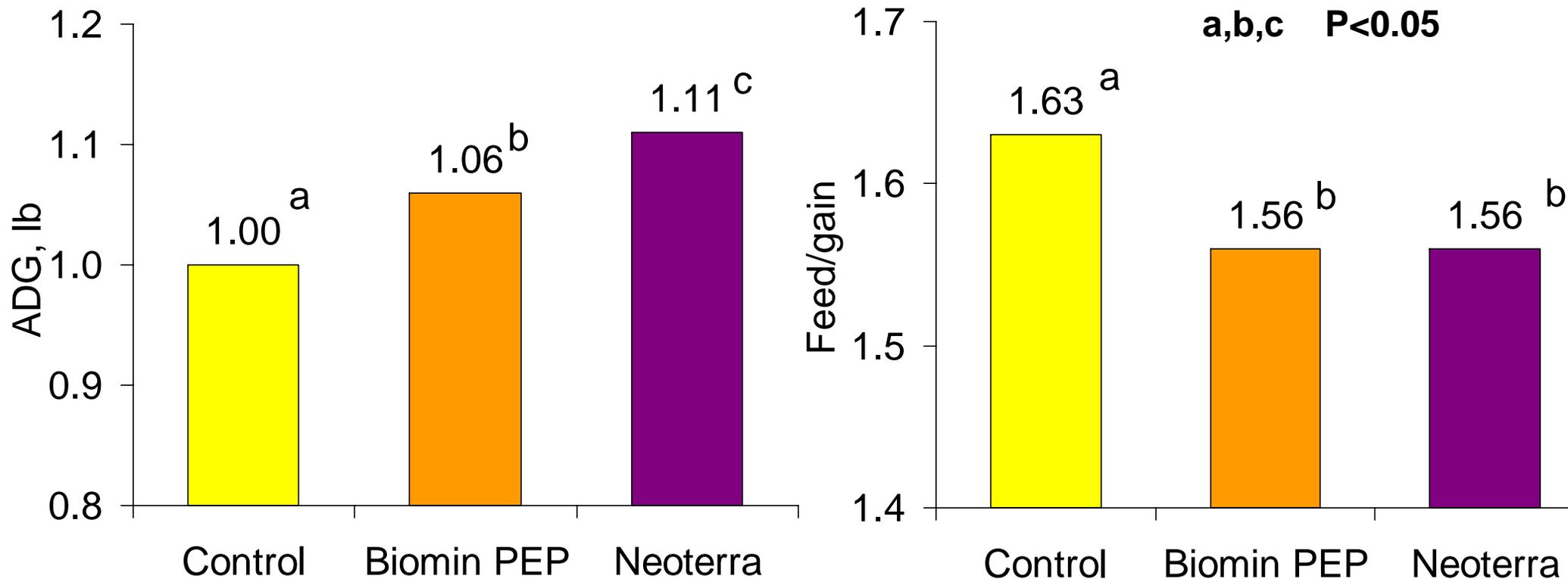
Increasing Dried Whey Prices

- At \$0.25 per lb for SEW, Transition & phase 2
 - 1, 3, & 12 lb = \$7.39
 - 1, 5, & 20 lb = \$8.88
- At \$0.45 per lb
 - 1, 3, & 12 lb = \$7.83
 - 1, 5, & 20 lb = \$9.58



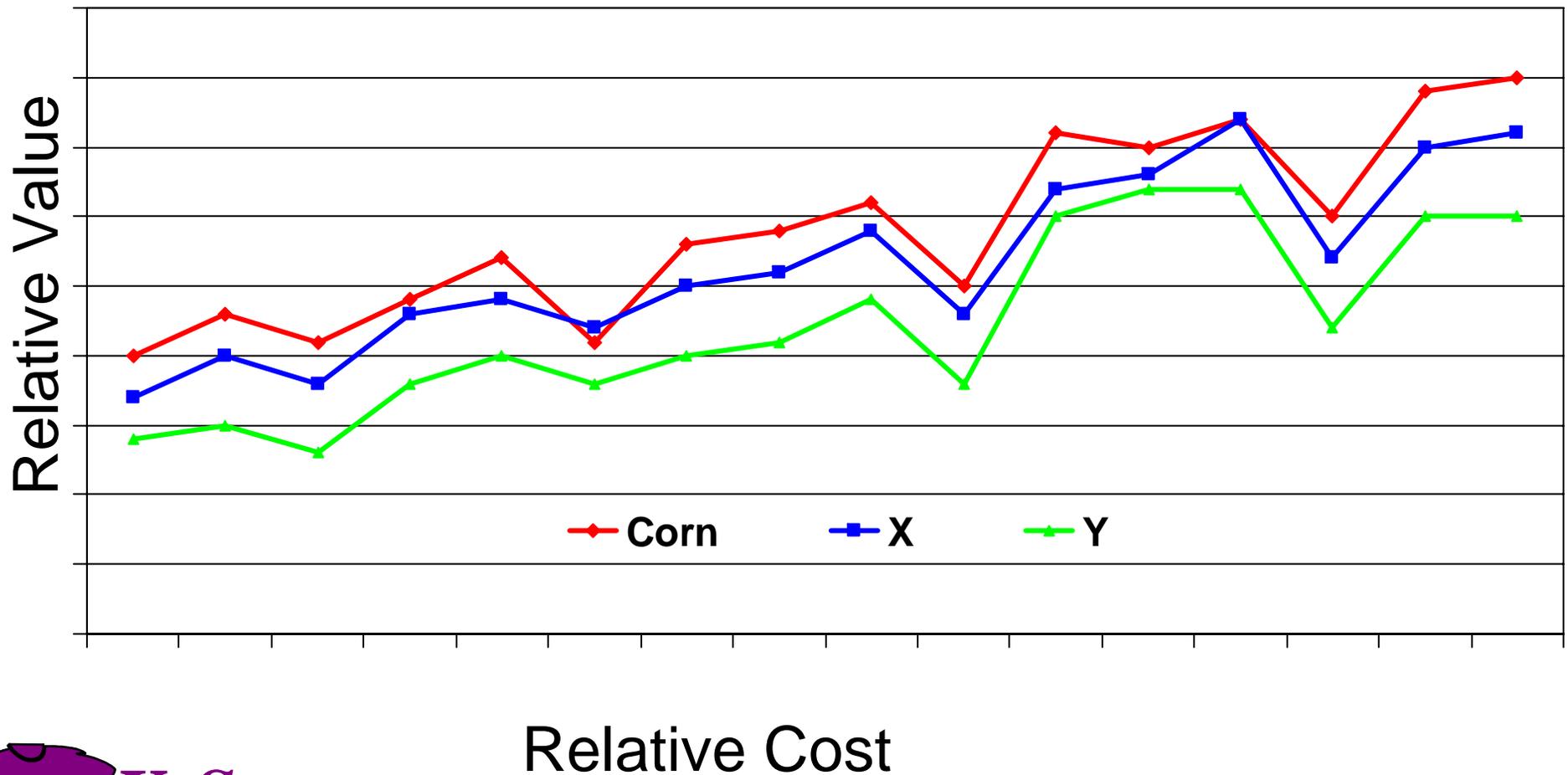
– watch your feed budgeting!

Effects of Biomin P.E.P. and Neoterra on growth performance of nursery pigs (d 0 to 42 d after weaning)



Sulabo et al., 2007

Relationship between Corn Price and By-product Ingredient Prices

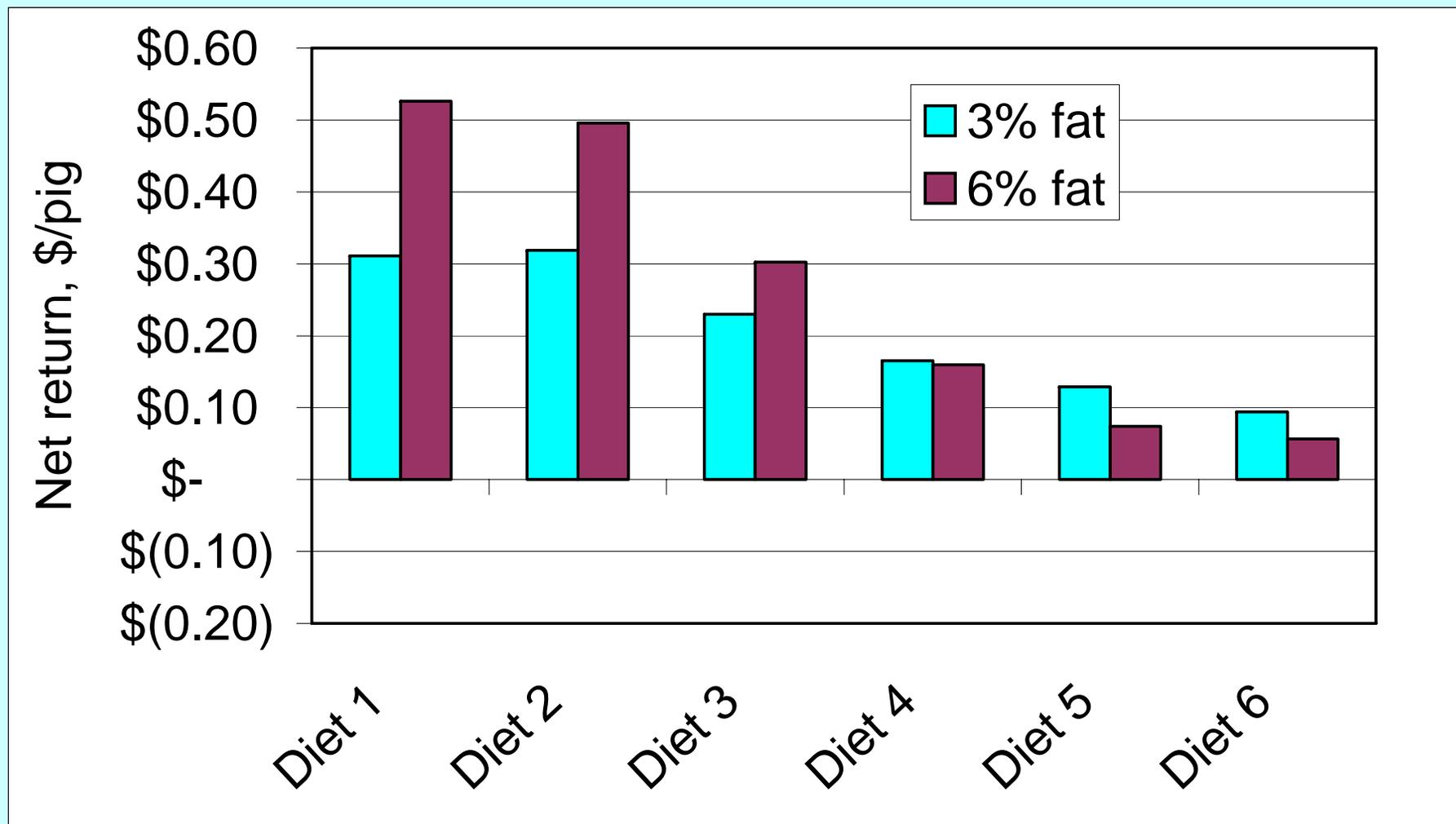


KSU Fat Analysis Spreadsheet

Prices	
Corn, \$/bu	\$ 3.50
SBM, \$/ton	\$ 190.00
Fat, \$/cwt	\$ 18.00
Grind/mix/delivery, \$/ton	\$ 12.00

Prices	
Carcass price	\$ 64.00
Est. live price	49.54

**Click to print
summary
sheets**

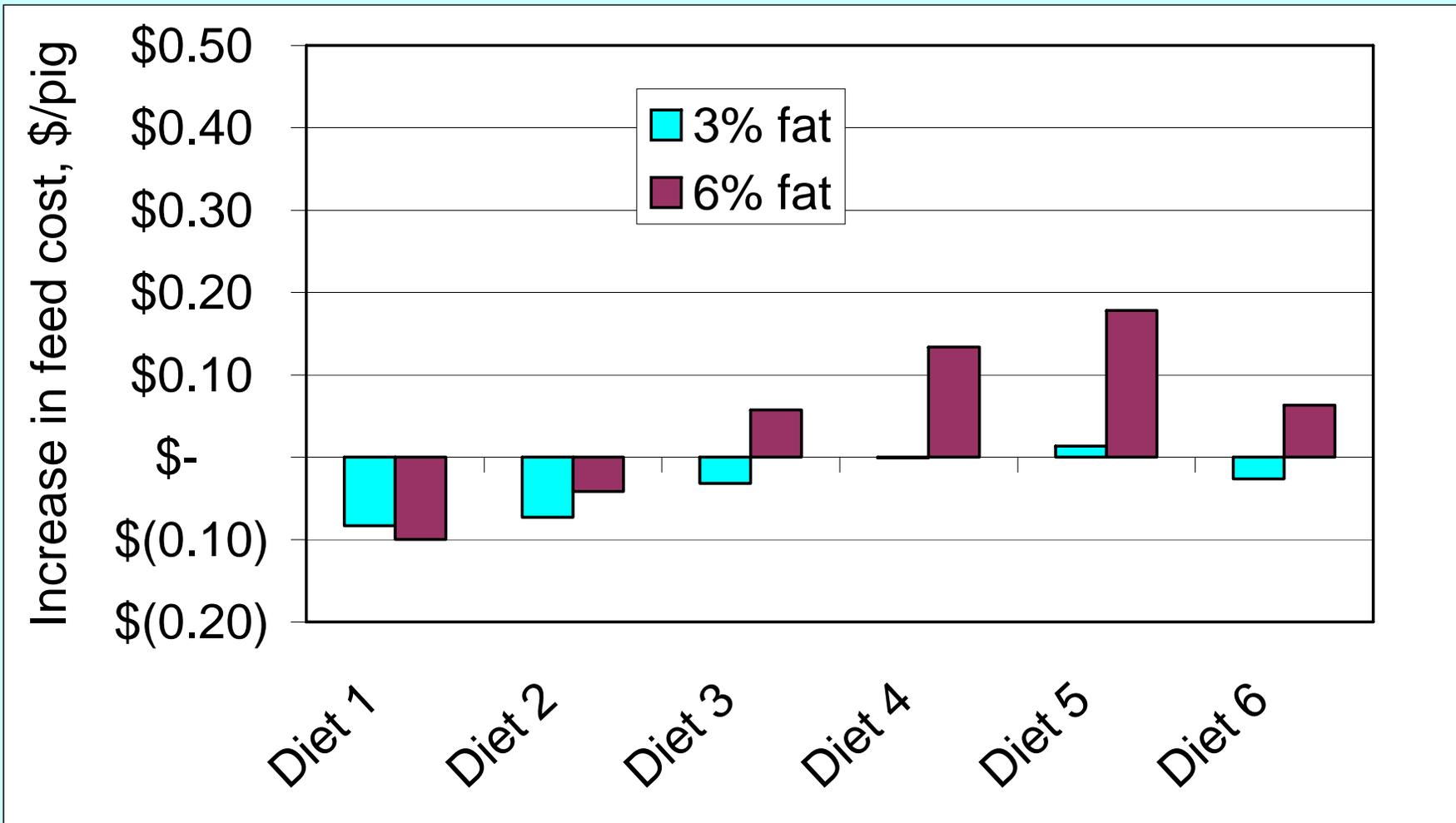


KSU Fat Analysis Spreadsheet

Prices	
Corn, \$/bu	\$ 3.50
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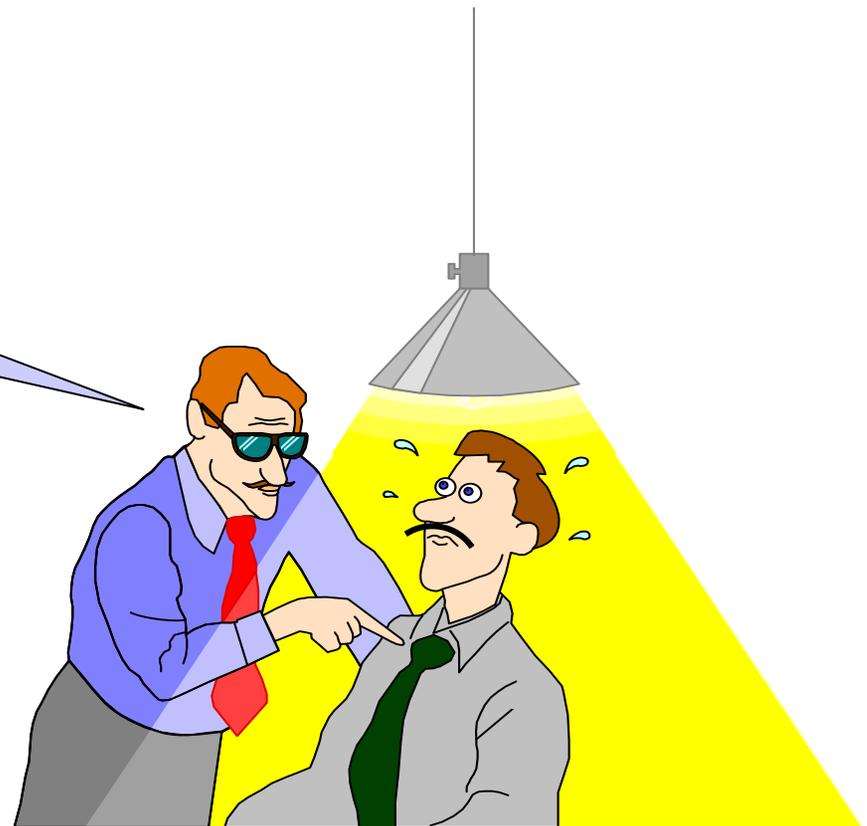
Prices	
Carcass price	\$ 64.00
Est. live price	49.54

[Click to print summary sheets](#)

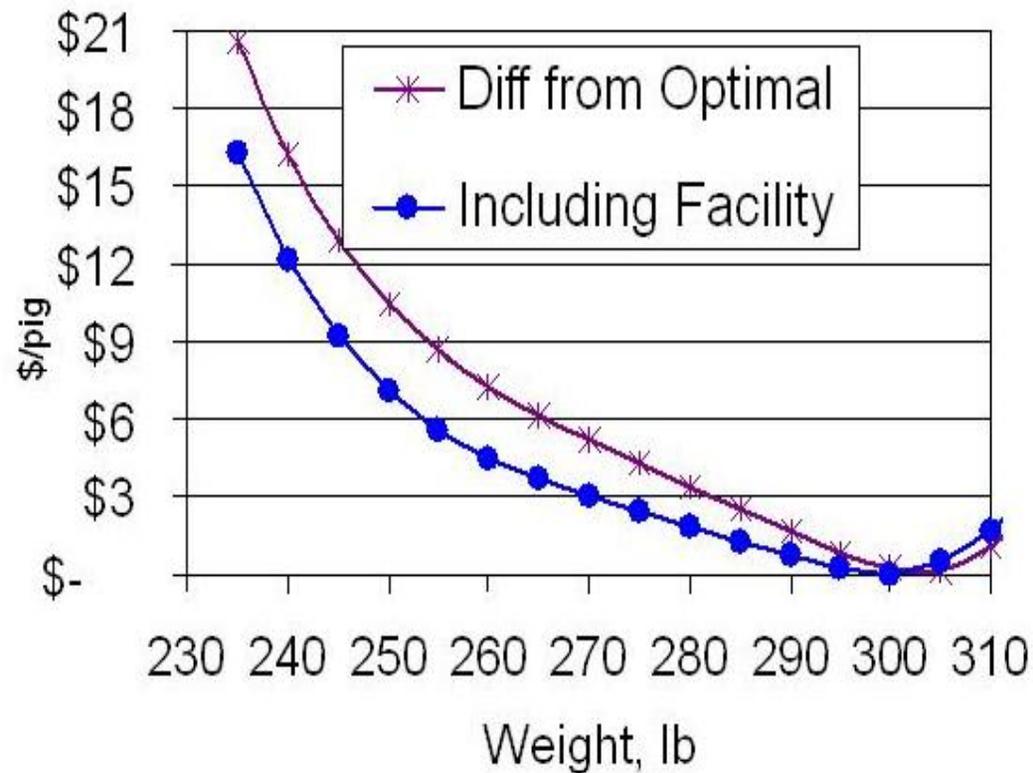


*“It’s pretty hard to beat a corn (milo)-
soybean meal added fat diet.”*

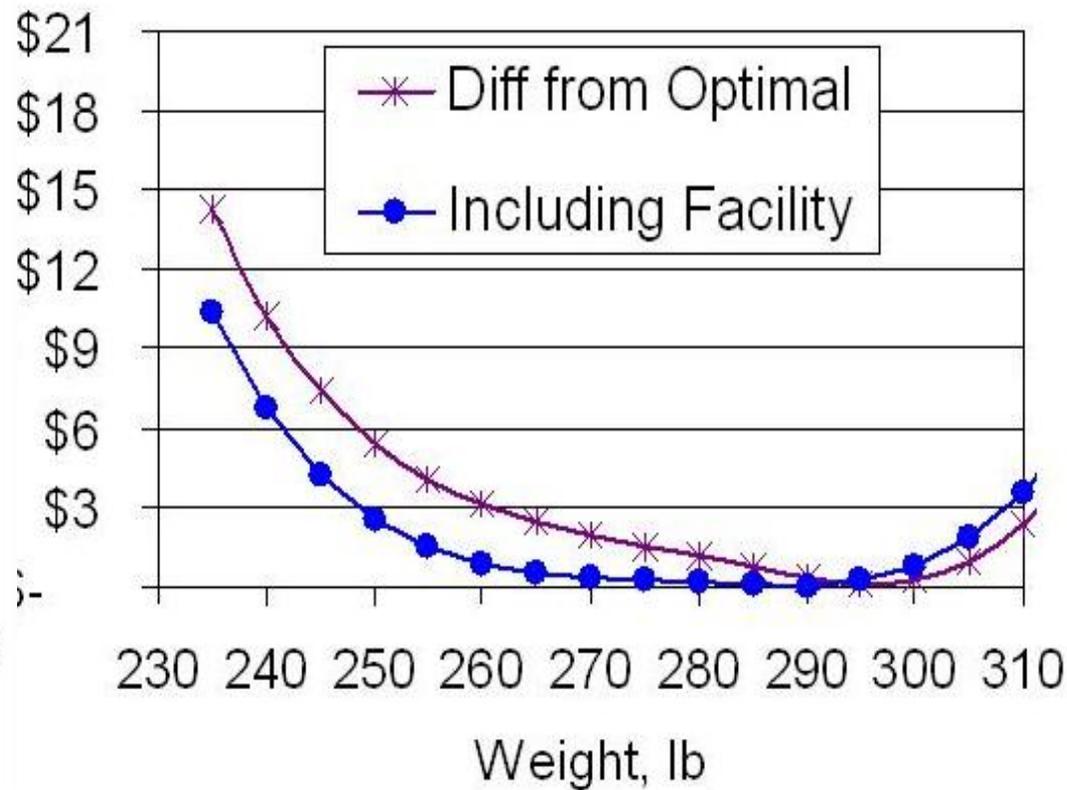
Bob: don’t
screw it up



Watch Marketing Weights: Heavy Weight Packer Grinds



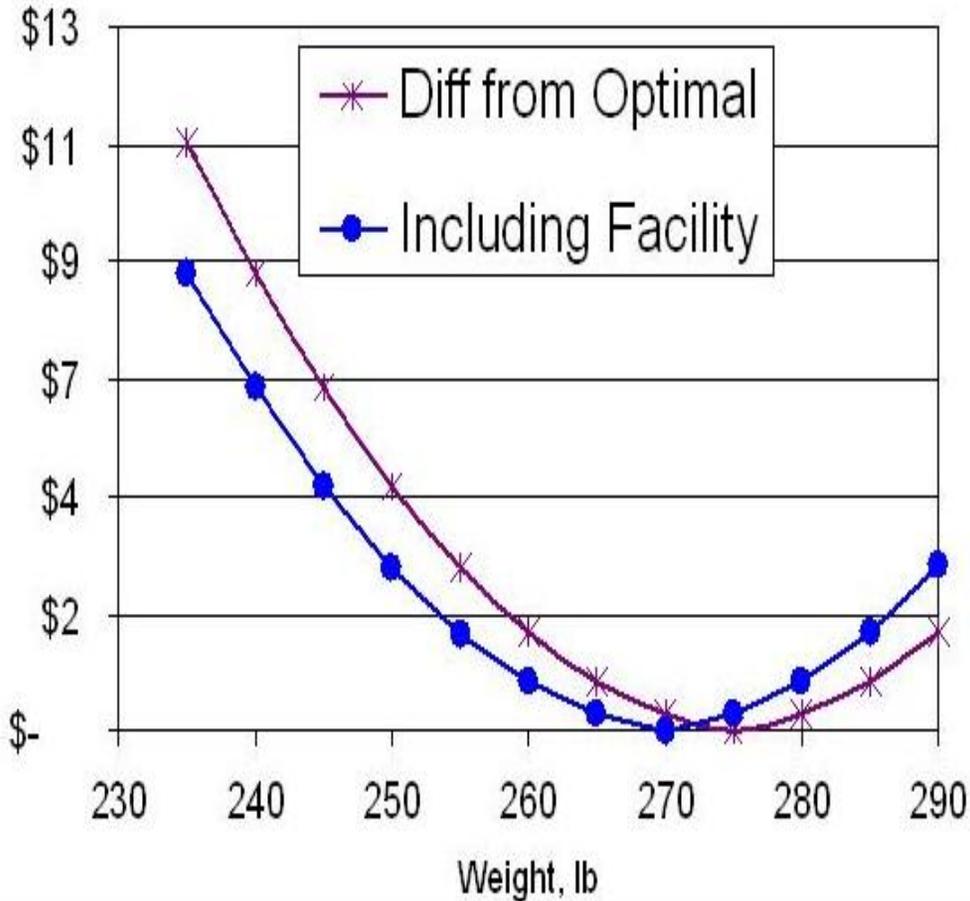
Low Grain Price



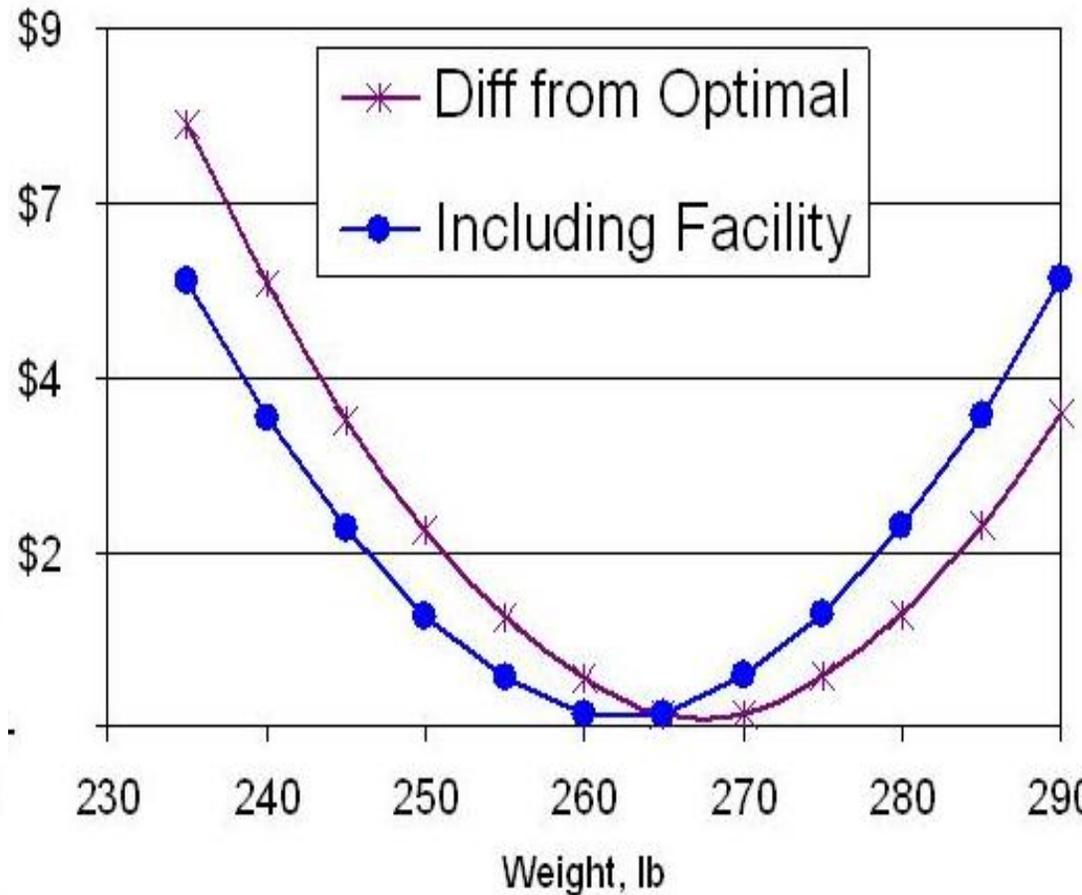
High Grain Price



Watch Marketing Weights: Light Weight Packer Grinds



Low Grain Price



High Grain Price





KSU DDGS Commercial Environments

- Nursery Pigs
 - 482 hd; initial weight 21.9 lb
 - Pigs fed 10% DDGS were 1.6 lbs lighter after 22 d
- Finishing Pigs (Exp. 1)
 - 1,050 hd; initial weight 104.9 lb
 - Pigs fed 0 or 15% DDGS had equal performance
 - Pigs fed increasing added fat (0, 3, or 6%) had improved performance
- Finishing Pigs (Exp. 2)
 - 1,038 hd; initial weight 102.1 lb
 - Pigs fed over 10% DDGS had reduced performance



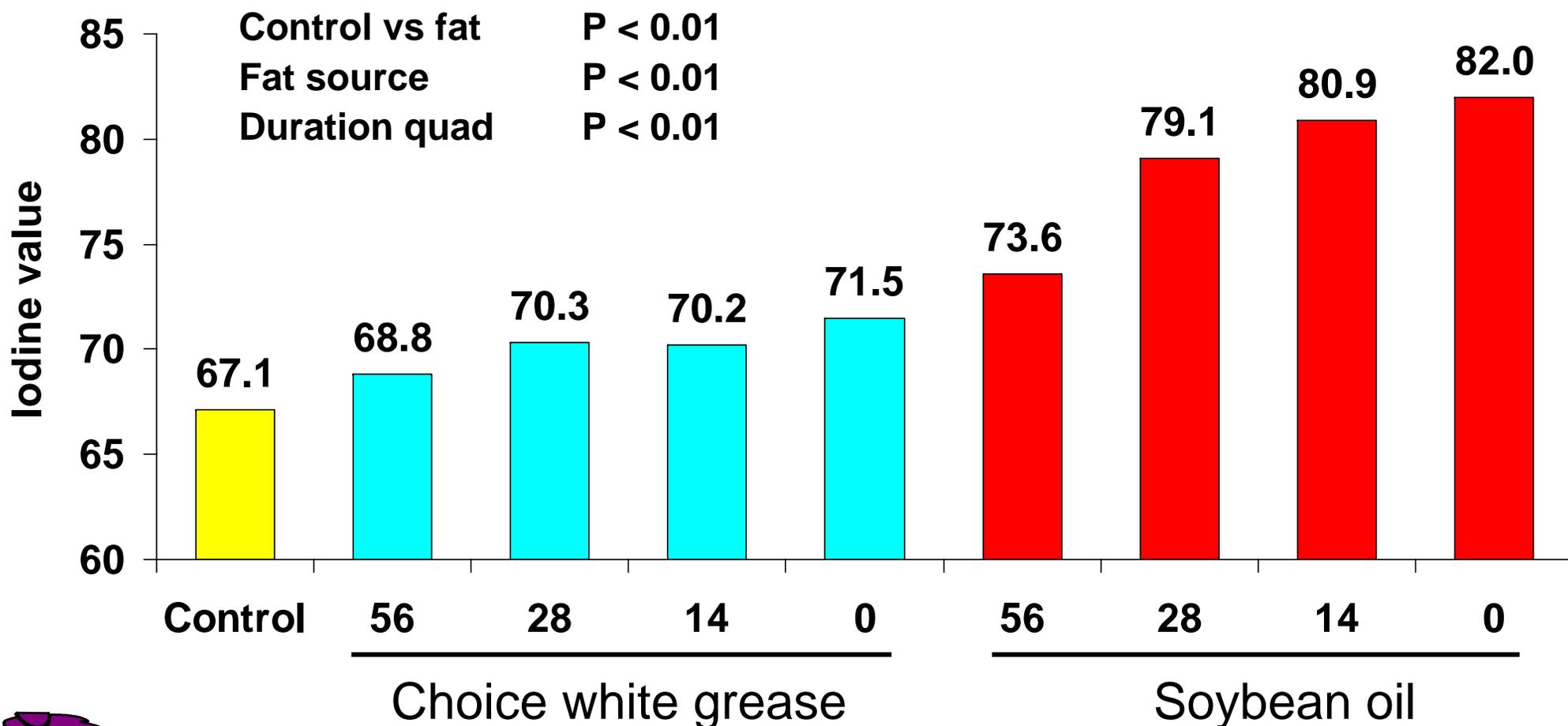
DDGS and Ileitis benefits?

- Exp 1 - No benefit for ileitis
- Exp. 2 – Minor reduction in ileitis
- Exp. 3 – No benefit for ileitis
- Final weight (lb) of challenged pigs in the three experiments

	<u>0% DDGS</u>	<u>10% DDGS</u>	<u>20% DDGS</u>	<u>Reduction</u>
Exp. 1	53.9	52.2	49.8	3%
Exp. 2	76.9	67.3		12.4%
Exp. 3	55.3	49.7		10%

	DDGS Level, %				P <
	0	10	20	30	
ADG, lb	1.90	1.89	1.82	1.78	0.01
Initial wt, lb	62.8	62.8	61.9	62.2	
Final wt, lb	259.5	258.8	250.7	246.5	
Yield, %	73.35	72.80	72.08	71.09	0.01
Carcass wt, lb	190.4	188.4	180.6	177.3	
\$60 Carcass Price	144.21	113.06	108.77	106.64	
Gross Difference, \$		-1.16	- 5.83	-7.86	
Final BW CV, %	6.92	7.15	8.30	10.40	0.01
Loin depth, mm	56.5	53.9	54.8	51.6	0.02
Iodine number	66.8	68.6	70.6	72.0	0.01

Effect of fat level and feeding duration before market on jowl fat iodine value



Benz et al., 2007

What is the “K” Value

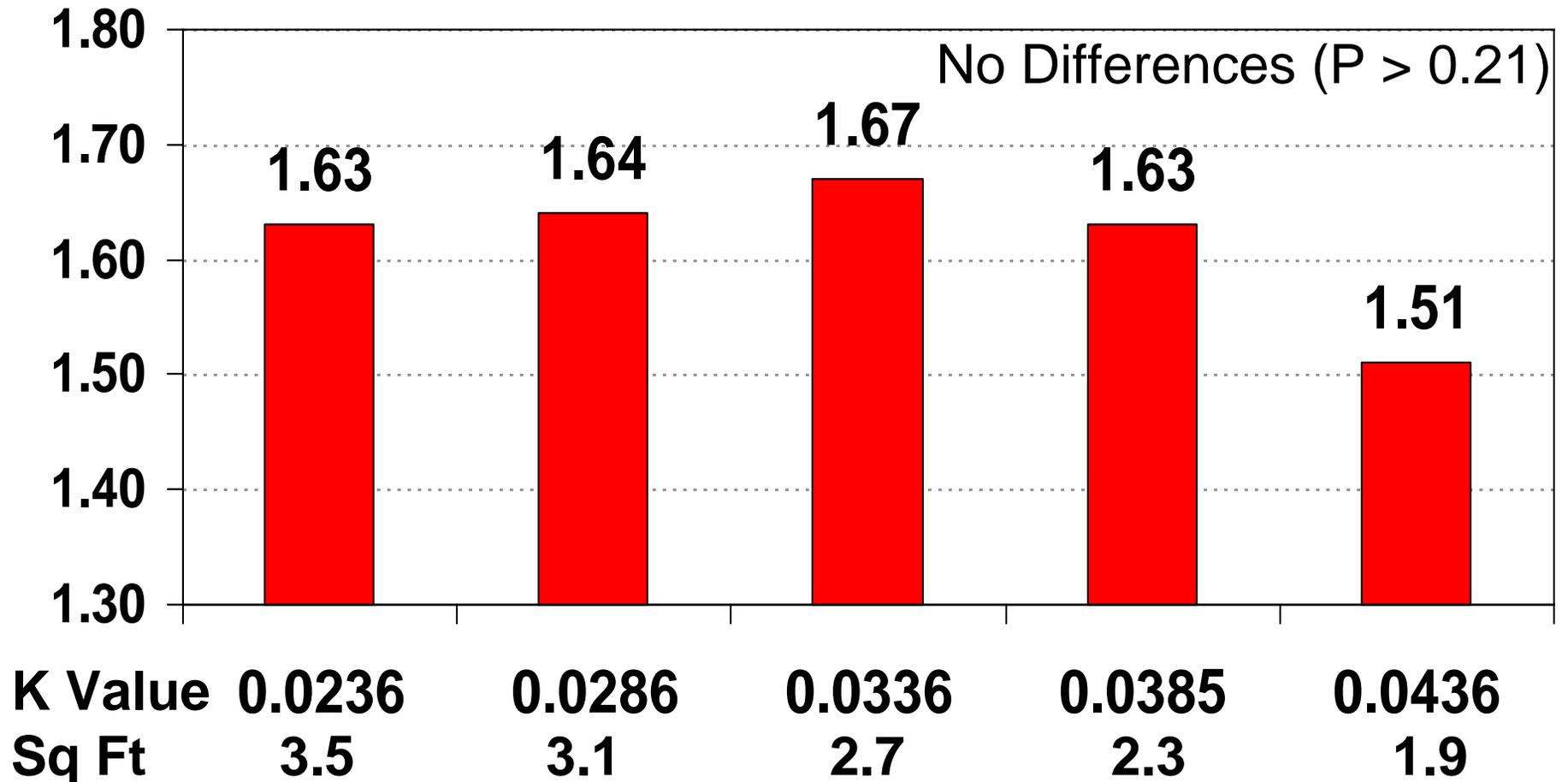
- Stocking density will likely be legislated as an animal welfare standard on swine operations.
- Based on numerous studies evaluating stocking density, the “K” value, when multiplied by the weight of the pig, calculates the stocking density for any weight pig.

$$0.82 \text{ m}^2 = 20.4 \text{ (kg)} \times 0.0336$$

(2.7 ft² for a 45 lb pig)

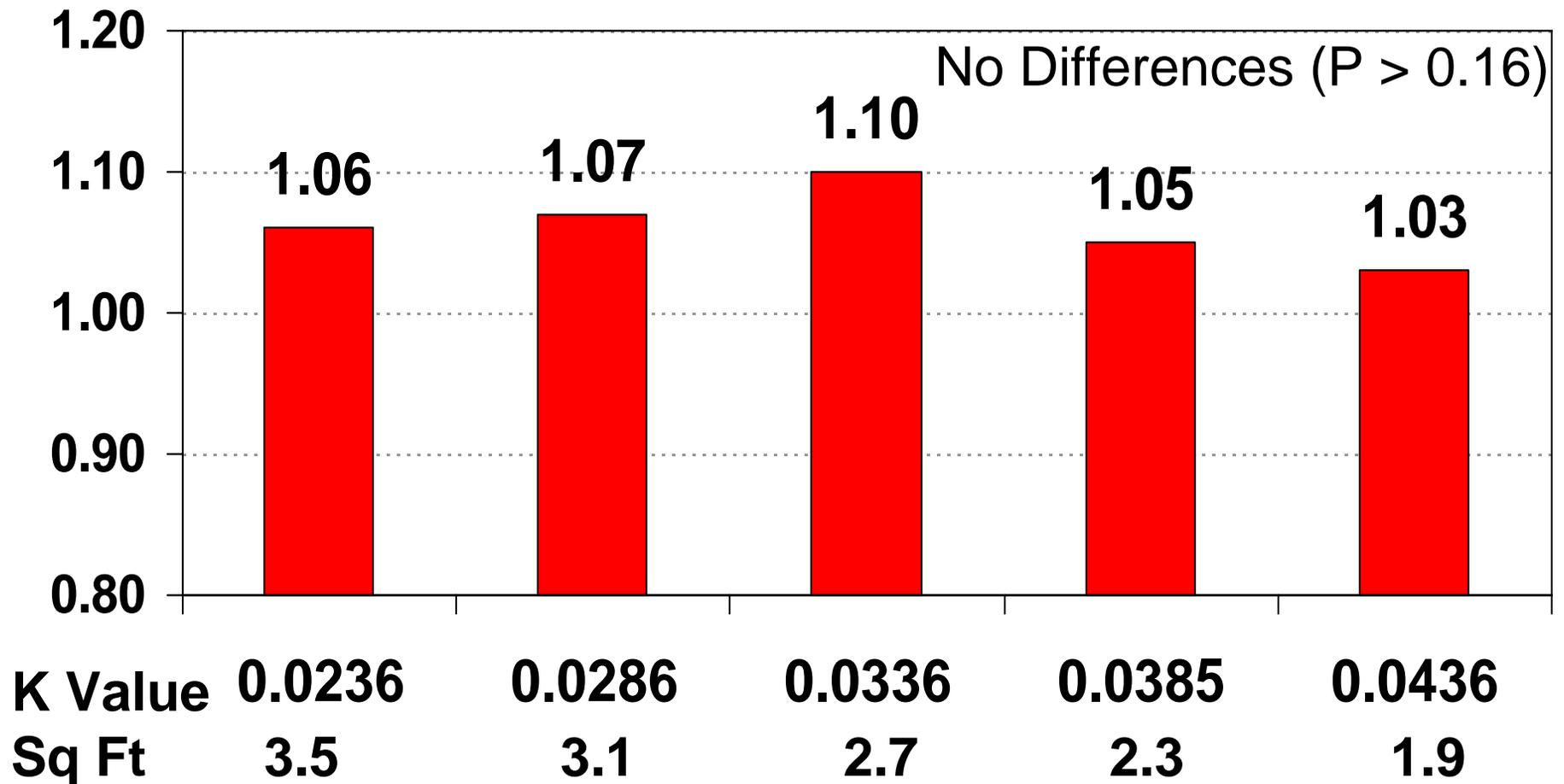


Effects of "K" Value (Stocking Density) on Nursery ADG - 45 to 55 lb



Goodband, unpublished

Effects of "K" Value (Stocking Density) on Nursery ADG - 14 to 55 lb



Goodband, unpublished

Results

- In this study, ADG only tended to numerically decrease when pig weight exceeded its calculated space allocation based on the suggested “K” value.
- The proposed “K” value of 0.0336 will need further refinement if it is to be used as a standard space allocation requirement.

