Carthage Conference

Nutrition Influence on Nursery Performance 8.27.24

CARTHAGE
NUTRITION

Take home messages

1. Understand your weaning weight – this plays a large role on getting pigs started on feed
2. Nutrition formulation/requirement
   - Crude protein, amino acids, lactose levels
3. Ingredients
   - Understanding how the ingredients may or may not work well in nursery diets
4. Phase transitions
   - Allowing time for the nursery pig to adjust to an ingredient vs feeding high levels and causing GI upset

Current Nursery Performance Goals

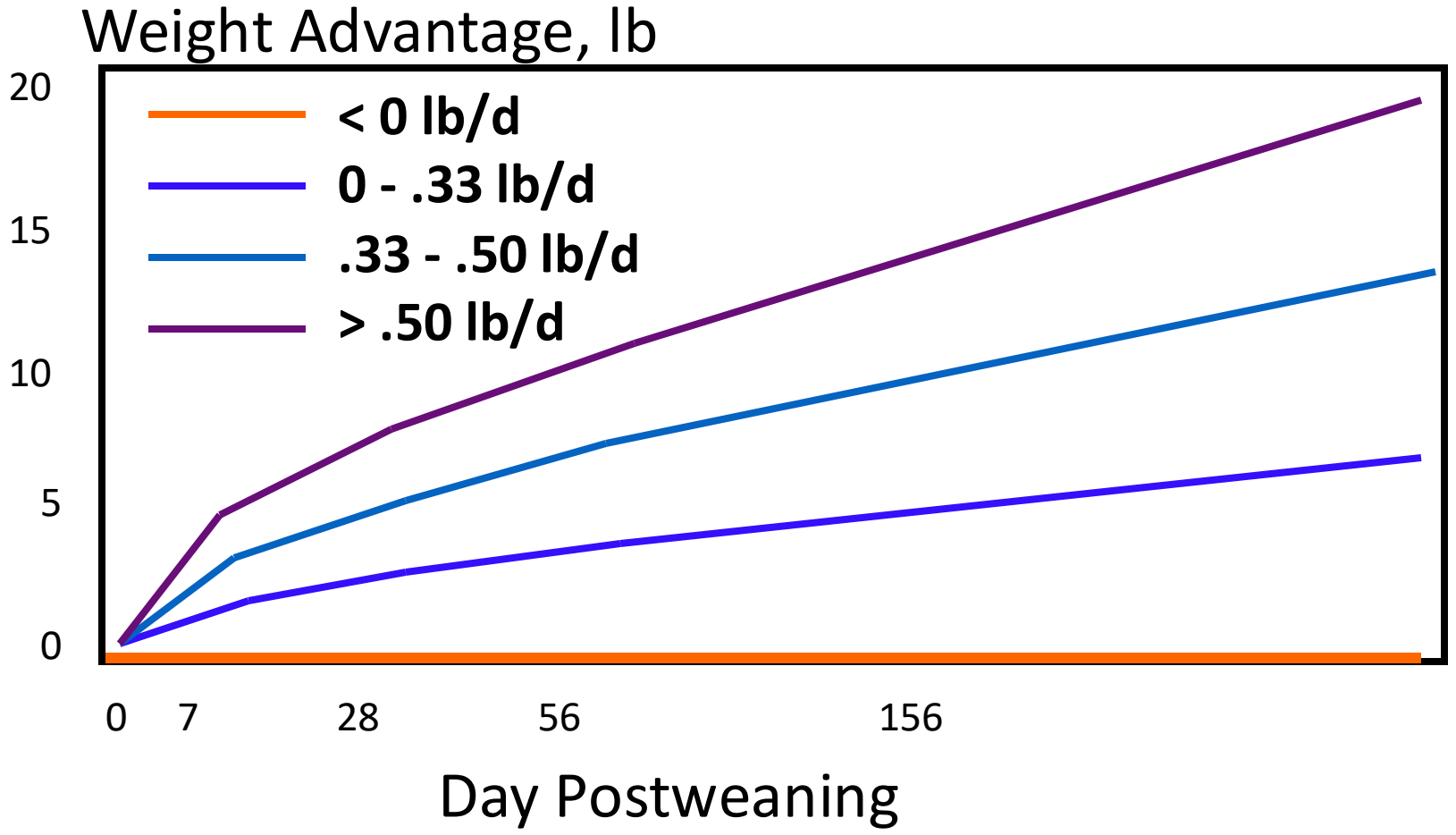
Production Type	Weight In	Weight Out	ADG	ADFI	FCR	Days on Feed	Mortality, %
Nursery, lb	12.00	55.00	0.96	1.33	1.42	45.37	1.53
Nursery, kg	5.44	24.95	0.43	0.60			

Personnel communication, Gomez, January 5th 2023

CARTHAGE NUTRITION PRESCRIBED

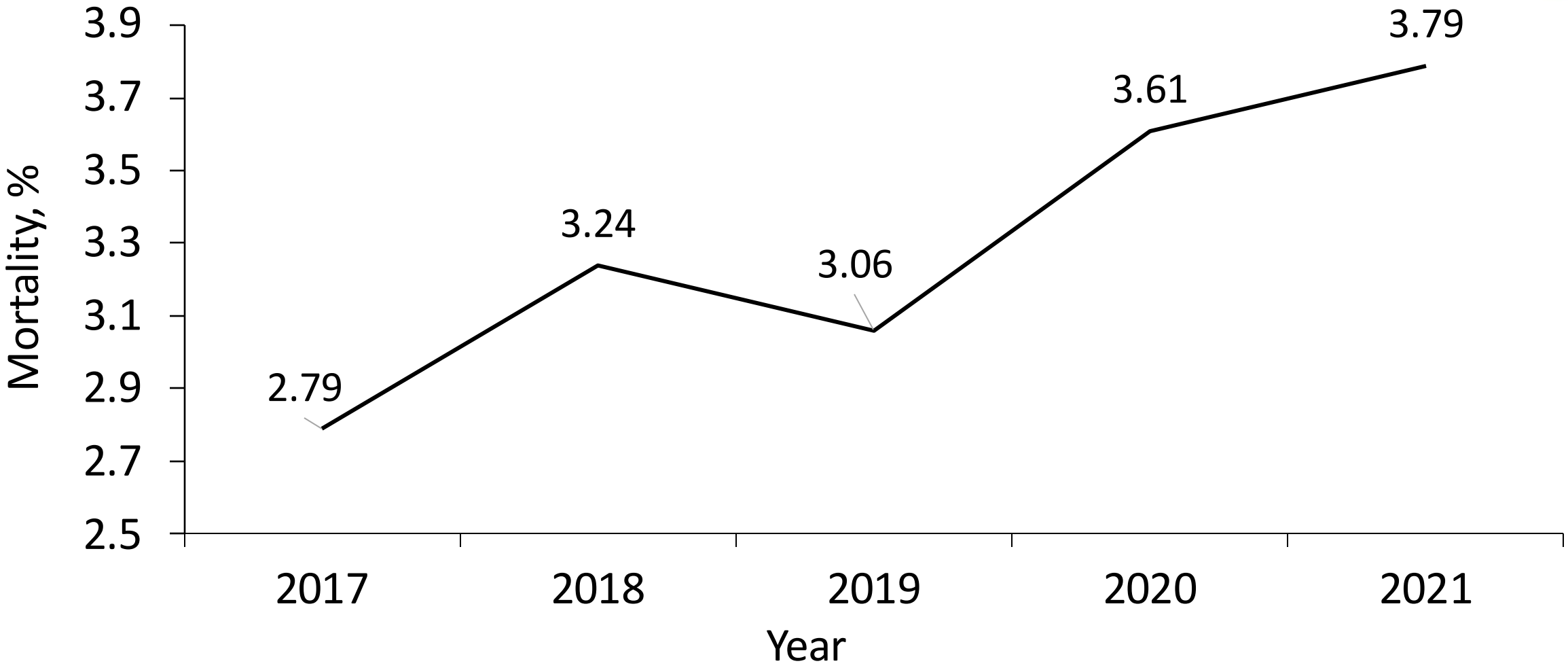
Science CVS Health Production

Influence of Growth During the First Week Post Weaning on Subsequent Performance



Tokach et al., 1992

Nursery Mortality, %



Adapted from MetaFarms, 2021

Ideas or things to remember

- When the production team, vet, owner, etc reaches out for help, believe them and understand there is problem
- Listen and show you care
- Working together with all departments
  - Vet, Nutrition, Production, Ownership, etc
- Review your area of responsibility
- Having an environment where teams can talk and have a game plan to work on the issue

Ideas or things to remember

- Ask questions
  - Sow farm, age, weight, health status, fill time line, what feed mill, how long did it take to feed up the phases, etc
- Visit the barn together if possible
- Looking at the pigs and understand the issues helps to get a better understanding

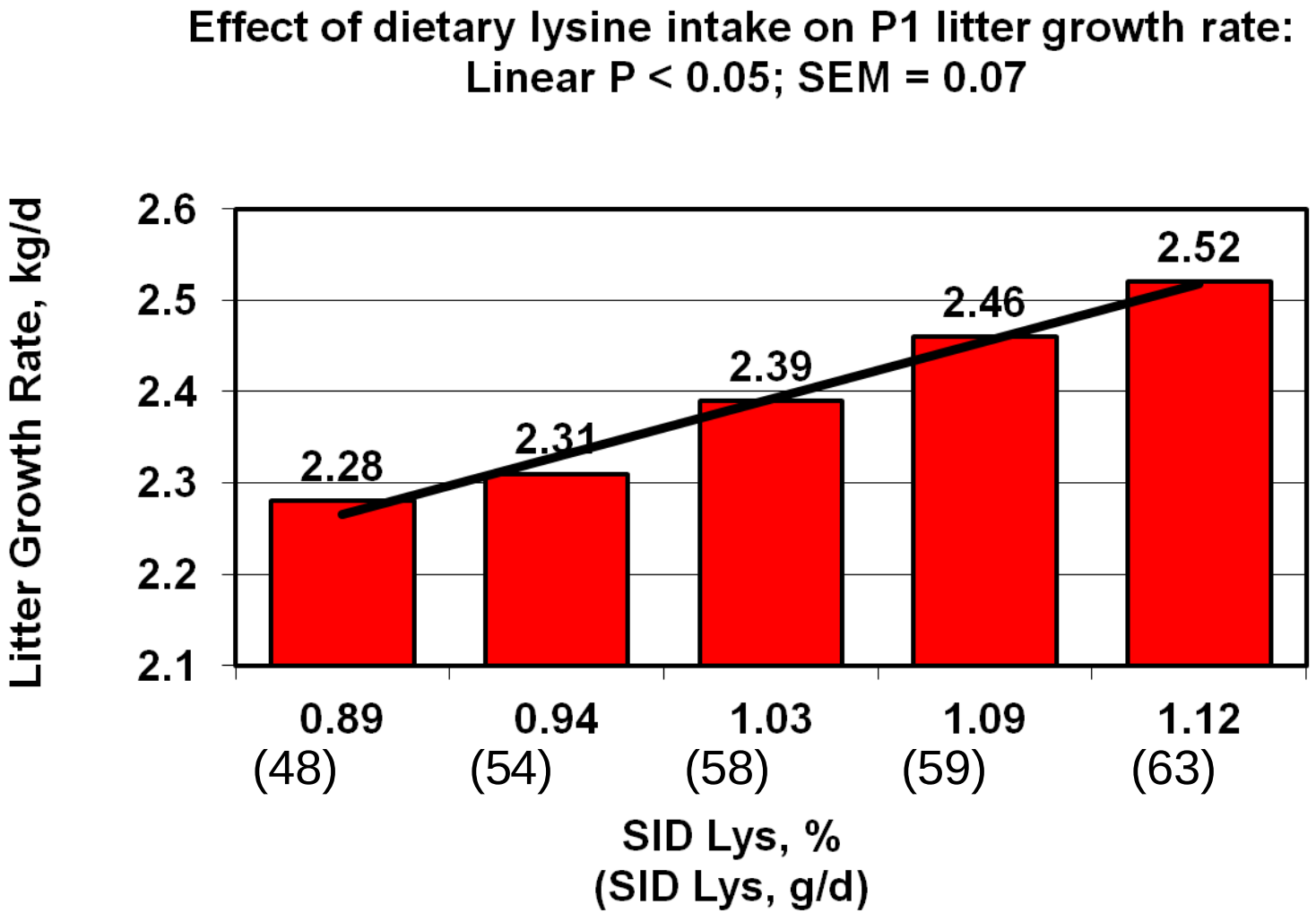
Young females weaning 16


Frank Robinson

Milk production

- Holstein dairy cow produces 75 lbs (34 kgs) of milk per day. (Holstein Association)
- 1500 lbs (680 kgs)
- 0.05 lbs of milk per lb of body weight
- Sow can produce 25 lbs (11.3 kgs) of milk per day (porkgateway.com)
- 450 lbs (204 kgs)
- 0.055 lbs of milk per lb of body weight

Lysine is important for milk production



Nursery Scours

- Producer had been battling scours for a while
- Worked with their vet on updating their diets with different ingredients and source of ingredients

Science
CVS
Health
Production

Example Diets

	3 Phase Program			2 Phase Program	
Ingredient Name	N1	N2	N3	N1	N2
CARTHAGE 1150	1150	750	250	1100	450
CORN	430	771	1177	438	954
STEAM ROLLED OATS	200	100		200	100
SBM	78	234	424	119	350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April 17
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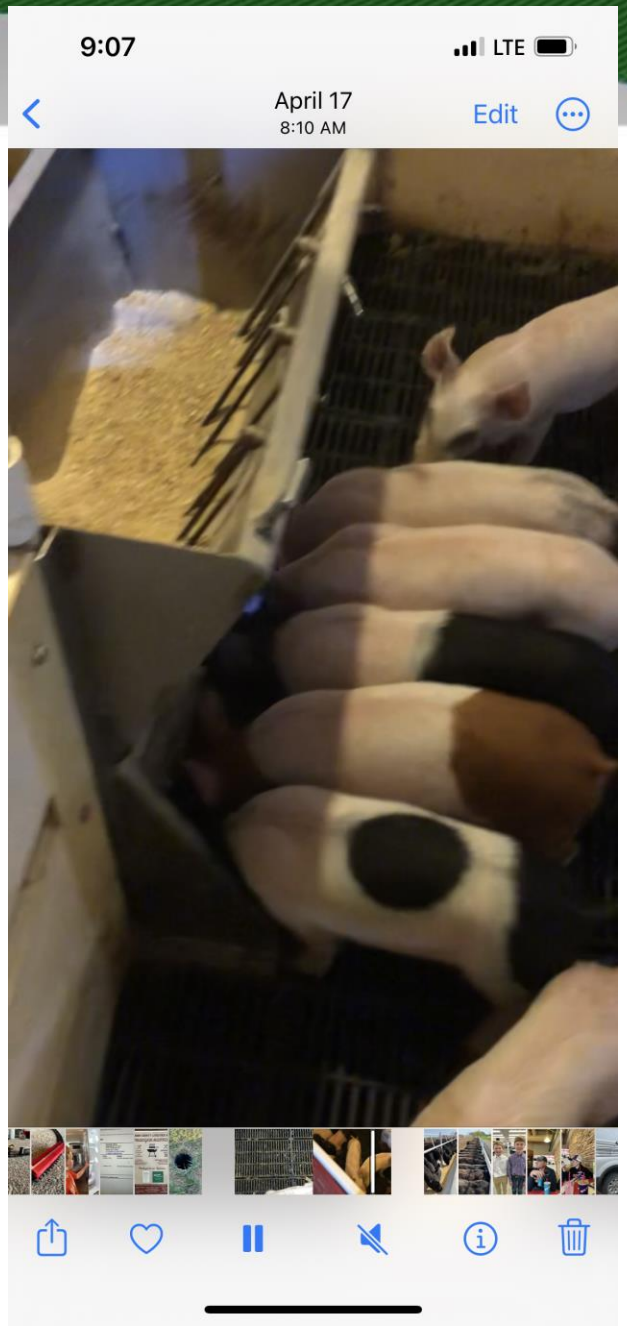
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Evaluation of different nursery pig diet formulation and phase feed budgets

Nursery Research Trial

- 1,248 weaned pigs
- PIC 337 x 1050
- 26 pigs/pen
- 12 replications per treatment (48 pens)
- 4 treatments
- 3 or 4 nursery phases from weaning to 52 lbs
  - Last phase was a common diet

Nursery Research Trial

4 Treatments:

T1: Commercially available nutrition program
T2: Carthage nutrition program – 2 phases
T3: Carthage nutrition program – 3 phases
T4: Carthage nutrition program – long fill

Feed Budget:

Weaning to 27 lbs = 20 lbs
27 lbs to 50 lbs = 40 lbs

			Feed budget, lb/pig			
Trt	**Diet**	**No. of Phases to 50 lbs**	**N1**	**N2**	**N3**	**27-50 lb Diet**
1	Control - US Commercial diet	3	5	15		40
2	Carthage 2 phase starter	3	5	15		40
3	Carthage 3 phase starter	4	3	7	10	40
4	Carthage Long Fill	3	10	10		40

Formulation

	Treatments			
	Commercial Levels	2 Phase Carthage	3 Phase Carthage	Carthage Long Fill Budget
Lactose	+++	++	+++	++
Oats	-	++	++	++

Results

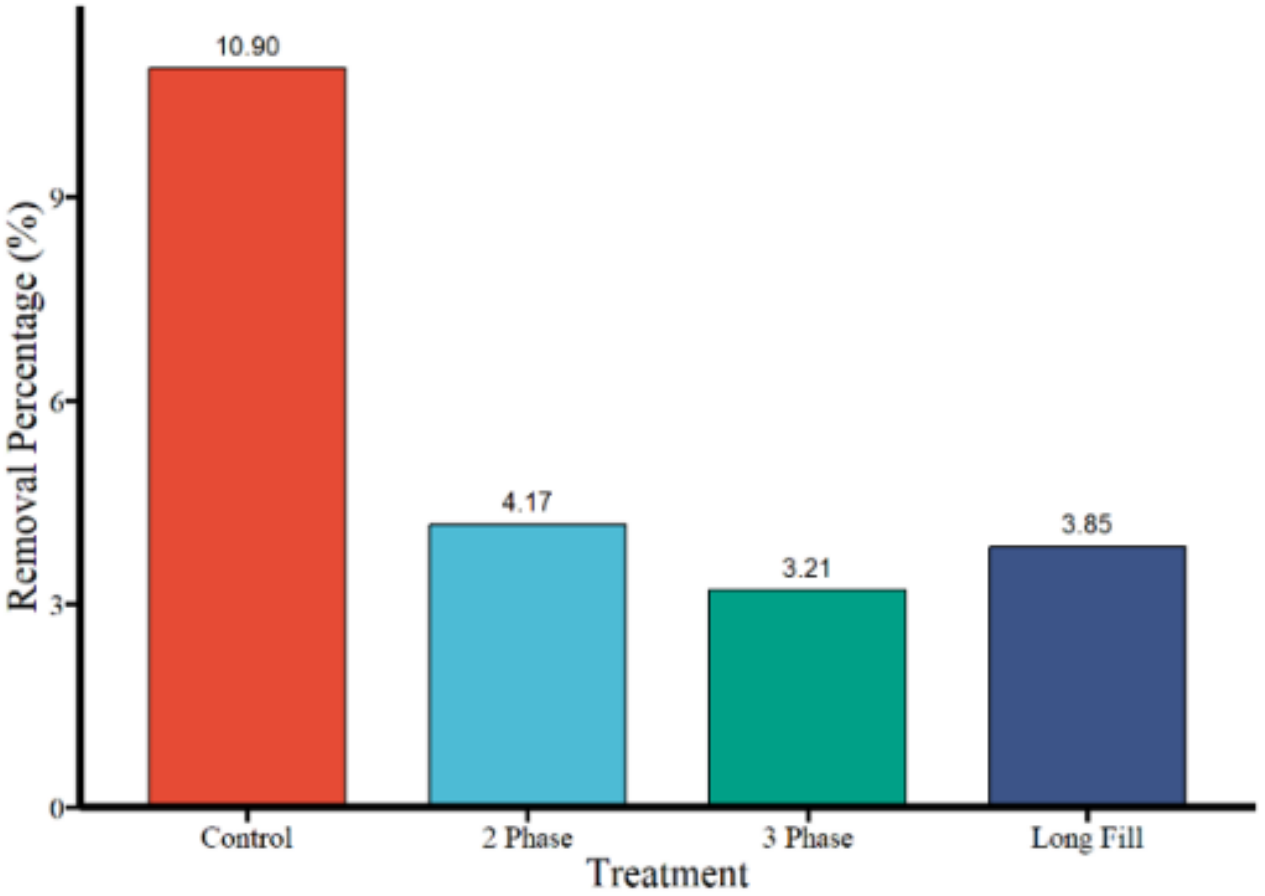
- Over nursery results from day 0-42 showed no significant differences in:
  - ADG
  - ADFI
  - FG

- However, feed cost/lb of gain was a difference.

- The three Carthage programs had a lower feed cost/lb of gain vs the control treatment because……

Overall Removals by treatment

Figure 4. Cumulative removals



Current Nursery Trial

- Evaluating different SID Lysine:Crude Protein levels
  - 2,496 pigs
  - 96 pens
  - 26 pigs/pen

- 3 Starter (12 lbs to 27 lbs) treatments with different Crude Protein levels
  - Low (28.1 lbs)
  - Medium (28.5 lbs)
  - High (29.1 lbs)

Current Nursery Trial

- 2 Late nursery (27 lbs to 50 lbs) energy and amino acid treatments
  - Current levels
  - Higher levels

- We know that too low in CP in the starter diets may cause some slower growth. Is there anything we can do in the late nursery to make up the weight difference?

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Thank You

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