

APPENDIX A

Environmental Stewardship Assessment: Swine Rations

For each issue listed in the left column, read across to the right and circle the statement that best describes conditions on your farm.

Issue	Excellent	Good	Not Ideal	Requires Corrective Action	Environmental Benefits
Improving nutrient yield from a feed					
Are vegetable sources selected based on fiber content?	Only low-fiber sources are used.	Where possible, low-fiber feed sources are used.	No consideration is given to the fiber content.	Only high-fiber sources are used.	N, O, A
Are ingredients screened for anti-nutritional factors (ANF)?	Only feedstuffs low in ANF are used.	Where possible, feedstuffs low in ANF are used.	No consideration is given to ANF content.	Only feedstuffs high in ANF are used.	N, O, A
Are heat-treated materials selected for proper heat processing?	Only properly processed sources are used.	Where possible, properly processed sources are used.	No consideration is given to processing.	Only over-processed sources are used.	N, O, A
Are complete feeds pelleted?	Yes	Almost all	Sometimes	No	N, O, A, P
Are enzymes with a proven track record used to improve the digestibility of your feed?	Yes, and nutritional values are adjusted.	Yes, but nutritional values are not adjusted.	No		N, O, A
Is phytase or low-phytate corn and soybean meal used?	Yes		No		P
Feed and water wastage					
How often is the feeder adjustment checked?	At least weekly	Monthly	Once for each group of finish pigs or every 3 months	Never	N, O, A, P
Is your feeder designed to minimize feed wastage?	Yes		No or don't know		N, O, A, P
Does your animal watering system minimize water wastage?	Yes, efficient water nipples or a liquid feeding system is used.	Yes, cups are installed under the waterers or a wet-dry feeder is used.	No, standard nipples are used.		A

A: Ammonia N: Nitrogen O: Odor P: Phosphorus

To assess the environmental impact of swine rations, see the Excel® spreadsheet provided on the CD-ROM or at this website <<http://mark.asci.ncsu.edu/nutrition/nitrophos.htm>> for additional information.

APPENDIX A

Environmental Stewardship Assessment: Swine Rations (continued)

Issue	Excellent	Good	Not Ideal	Requires Corrective Action	Environmental Benefits
Precision nutrition					
Do your feed formulas have a minimum protein content?	No, and formulas are designed to be low in protein.	No, and low-protein formulas are accepted.	No, but low-protein formulas are rejected.	Yes	N, O, A
Are synthetic amino acids utilized?	First four limiting amino acids are utilized (lysine, threonine, tryptophan, and methionine).	First limiting amino acid is utilized (lysine).		No synthetic amino acids are utilized.	N, O, A
Into how many phases is the grow-finish ration split?	6 or more	4 to 5	2 to 3	1	N, O, A, P
How many protein-containing feedstuff do you typically use per diet?	6 or more	4 to 5	3	2 (e.g., corn and soybean meal)	N, O, A
Are pigs fed separated by sex?	Yes		No		N, O, A, P
Are quality control procedures used in feed manufacturing?	Yes, scales are regularly checked and calibrated, AND feedstuffs are regularly checked for amino acids and available P.	Yes, scales are regularly checked and calibrated, AND feedstuffs are regularly checked for crude protein.	Scales are checked infrequently.	No	N, O, A, P

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