

Committee response to Reviewer comments:

Reviewer 1: The Committee would like to thank the Reviewer for their kind words.

Reviewer 2: The Committee has discussed ways to measure longevity in sows on a number of occasions. Due to the structure of the breeding herds at most Universities, it is not practical to start with gilts or parity one sows for our studies. This would eliminate half to 2/3 of the animals available for the study at a particular University, resulting in a decrease in experimental units on the study to a point that meaningful data can not be collected. The Committee encourages all participants to carry sows on an experimental treatment for at least 3 parities. Those stations that can carry sows for a 4th or 5th parity are encouraged to do so. However, this is not practical at most Stations due to competition for sows and culling rates. The Writing Committee has included a statement in the Project to encourage Stations to leave sows on for a 4th parity if possible. It should also be noted that part of the Reviewer's justification for a 4th parity on this study was to collect data on the productivity of an older sow. To do this properly, this would need to be developed into a separate objective. This is a concept that the Committee will discuss and possibly include in a future project.

Reviewer 3: The Committee appreciates the comments of this reviewer. The reviewer has raised some questions that the Committee has discussed at length previously. Unfortunately, the Committee is limited in what it can do by funding and available personnel and animals.

Objective 1: The collection of growth/performance data has always been the main focus of the Committee. The collection of biological samples to support or explain the growth/performance data has always been a secondary focus. The use of blood mineral concentrations to indicate mineral status is a subject of great debate in the industry. Most mineral nutritionists feel that blood copper is not a good indicator of copper status in the animal as copper concentrations in the blood are tightly regulated. The Committee encourages all Stations to collect biological samples whenever possible. However, Stations are often limited by personnel or funds and are unable to collect biological samples. The Committee normally has all of the biological samples analyzed in a single laboratory. Depending on the cost of the analysis, the number of samples that the single laboratory can handle also affects the number of samples that are collected. Participants are encouraged to take biological samples whenever possible, but the collection of biological samples is not required for participation in the objective. In this case the Committee does not feel that the information gained from a large number of blood samples would be worth the time and expense of collecting them, however we will encourage as many Stations as possible to collect blood samples.

The Reviewer also mentions a desire for copper balance data. Copper balance is difficult to measure and requires significant time and expense. The inclusion of markers in the diets and the collection of additional samples would make the objective more difficult to do and would decrease the number of Stations participating. The Committee

feels that the determination of copper balance would be a logical second study once the data from this objective has been collected.

Objective 2: The diets for this objective have been formulated to contain the same ideal amino acid balance and are of similar energy density (within 1%). At this time there is no blood work planned for this objective. The main goal of the Committee at this point is to determine if there is an effect on reproductive performance. A follow up study to determine the biological response would be a logical next step.

Objective 3: Balance and blood data may be collected at individual stations as a corollary study to the objective. The project does not include the collection of blood or balance data.

Reviewer 4: The comments of this reviewer had been received on a previous draft of the project. The Writing Committee feels that we have addressed his comments in the current draft of the project.

Overall, the Writing Committee feels it has addressed the comments of the reviewers. The Committee wishes that the projects could be more encompassing in scope. However, we feel that the data that will be collected in these objectives will have a significant impact on the swine industry and will lead to the incorporation of new feeding guidelines into sow diets.