AAFCO LM&SC Fat Soluble Vitamins Working Group

Vitamin A Team & Vitamin E Team

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Review from Midyear Meeting

• Single-laboratory study to determine the minimum sample size needed
  ✓ Minnesota Dept. of Ag. has volunteered to perform the study
  ✓ Will work closely with the Sample Preparation WG on study design

• Need to work closely with the Sample Preparation WG on sample preparation for single-laboratory studies
Change of Plans

- Debate on sample weights to use
  - How high and low to go on sample weight
  - What weights to use in between including number of weights to examine
  - Theoretical weight needed is highly dependent on the Vitamin A particle size

- Decided to measure the particle size of the vitamin premixes to guide on theoretical sample weight needed
Vitamin Premixes

- Obtained vitamin premixes
  - 2 different manufacturers
  - Vitamin A
  - Vitamin D3
  - Vitamin A/D3 combination
  - Vitamin E
Particle Size Measurement

- Estimate particle size by looking under a microscope with a stage micrometer – Minnesota Dept. of Ag.
- If particle size is not uniform, a commercial lab has volunteered to do some particle size distribution analysis using light scattering.
Next Steps

• Obtain particle size measurements of the vitamin premixes using the microscope and maybe light scattering.

• From the particle size information, estimate minimum sample weight needed for testing.

• Proceed with single-laboratory Vitamin A (and E) experiment and compare to theoretical.