

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.**