Revised April 11, 2008

CALIFORNIA DEPARTMENT OF
FOOD & AGRICULTURE
A. G. Kawamura, Secretary

March 13, 2008

Dear EATF members,

At our last meeting, Laurie Gibson asked the question about the LBAM-F particle size distribution. There is a reference in Dr. Inge Werner's report about micro-capsules with a diameter as small as 10 micrometers, and an average of 30 micrometers.

I have discussed this by phone with Dr. Bryn Phillips at the Granite Canyon Marine Pollution Studies Laboratory. He said that he only did a quick and dirty particle size check with an ocular (eye) microscope. He said "I would not characterize this as a thorough particle size distribution". Dr. Phillips recommended that a thorough study be done with better equipment, in particular a Coulter counter with imaging software.

It turns out that the manufacturer, Suterra, has the Coulter counter and does thorough particle size distribution studies for quality control. In addition, Suterra pulls samples from across the bottle to give a representative sample. Suterra provided a copy of an analysis of LBAM-F to Dr. Bob Dowell who discussed the results at the meeting. The actual graph and analysis is enclosed.

You can see from the analysis that the median micro-capsule (50 percent larger and 50 percent smaller) is 97 micro-meters. You can also see that 1.2 percent of the micro-capsules by volume are smaller than 10 micrometers in diameter.

In addition, the formulated product is mixed with water for application. When applied the microcapsules are encased in water droplets that average 1,000 micrometers in diameter. The microcapsules then tend to adhere to the surface on which they land.

If you have any other questions or concerns about this matter, please call or e-mail me.

Sincerely,

Robert Leavitt

Robert Leavitt, Ph.D.
Branch Chief, Executive Secretary, EATF