

Concentrated Animal Food.

(Report No.2)

KAEW NUALCHAWEE, WILLIAM G. PREWETT, PAKORN PAKARNSEREE

Applied Scientific Research Corporation of Thailand (ASRCT), 1974

ABSTRACT

A number of concentrated animal food samples were supplied, by Charoen Phokphan Feed Mill Co. Ltd., through the Military Research and Development Center (MRDC) of the Supreme Command Headquarters, to the Exposure Testing Project for use as test specimens. The liaison personnel for MRDC were Col. Adulsuckdi Mitrabhuckdi, Maj. Sripan Vichapen, and Maj. Howard S. De Witt. The purpose of the test is to study the shelf life of the concentrated animal food. The animal food in two different types of container and in five different formulae, were placed on the wooden floors of the wooden huts, built to simulate field depots. The two wooden huts are located in the clear site, and at the jungle site. There is one wooden building, fitted with an air-conditioner to serve as a control room, located near the two aforementioned huts. Therefore conditions for exposure are storage in the clear site, storage in the jungle site, and storage in the control room.

Tests were performed on the animal food for changes in weight, visible changes, microbiological changes, and changes in chemical composition occurring during exposure. Changes in weight were positive in most cases except in some cases of samples stored in the control room which were negative. Visible changes of containers and the food itself varied widely with the kind of container and conditions of exposure. Most plastic containers suffered from ants and rodents as well as from breakage of seams (creases) due to inadequacy of sealing procedure. They also suffered breakage in the course of handling and transportation. In not very cases did laminated paper/plastic containers show any defect.

Many cases, especially samples from the jungle site showed mold growth which could be seen through plastic containers. This could also be confirmed by the temperature of the containers which were warm to the touch. Results from microbiological study showed an increasing quantity of microorganisms in the animal food, especially

02-174

on ones exposed in the jungle site depot. Results of chemical analysis indicates very small degrees of deviation from the results of the first withdrawal. The free fatty acid test showed very little change from the results of the first withdrawal.

