

Effect of Storage Time and Temperature on the Vitamin Levels in LabDiet® Certified Rodent Diet 5002 (1998).

LabDiet® Certified Rodent Diet, 5002, was stored at 10° (-12), 70° (21) and 100° (38) F(C) and 50% relative humidity for 0, 90, 180 and 360 days post manufacture. Vitamin content was assayed. Retention of assayed vitamins is recorded in Figures 7 and 8.

Figure 7. Effect of storage (0, 90, 180, 270 days) temperature (10, 70 and 100° F) and time on the percent retention of thiamin in LabDiet 5002.

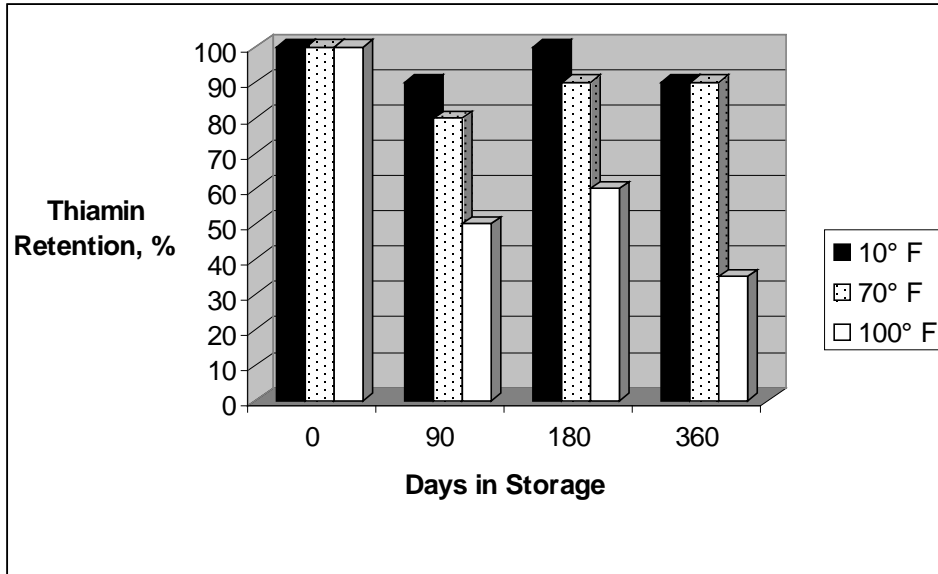
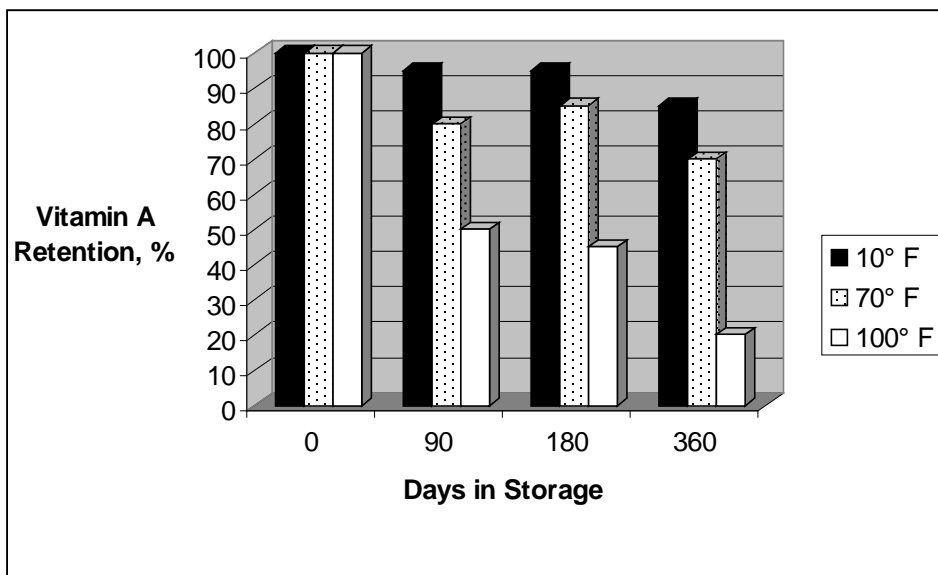


Figure 8. Effect of storage (0, 90, 180, 270 days) temperature (10, 70 and 100° F) and time on the percent retention of Vitamin A in LabDiet 5002.



Results indicate stability of thiamin and vitamin A is inversely related to storage temperature. Very little vitamin loss was observed through 6 months post manufacturing when stored at 10° or 70° F. However, at least 60% of both thiamin and vitamin A was lost when stored at 100° F for 90, 180 and 360 days post manufacturing.

Storage of 100° F is never recommended for laboratory animal diets resulting in a diet with inadequate thiamin and vitamin A concentrations to meet the animals' minimum requirements.

LabDiet products should always be stored at 72°F (22°C) and 50% or less relative humidity.