# COMMISSARY MANAGEMENT OF PRODUCT SHELF LIFE

# Debbie A. Tanciatco, $BS^{1*}$ , Deborah A. Lowe, $BA^{1}$ , David P. Szabo<sup>1</sup>, and Jennifer D'Amato-Anderson, $MS^{1}$

## <sup>1</sup>Nutritional Services, San Diego Zoo Global, 2920 Zoo Dr, San Diego, CA 92101, USA.

#### Abstract

Managing products used for animal consumption and determining their shelf life is a necessary part of safe food handling and is regulated through inspections by USDA and IACUC. Commissary product management should include monitoring storage conditions, product rotation, and regular inventorying of current stock. Commissary personnel should also have knowledge of basic terms used for shelf life, proper product labeling, and the ability to determine shelf life dates from manufacturer codes. Routine commissary management of animal food products and shelf life will be helpful in keeping the commissary well stocked and inspection ready.

## Determining Shelf Life and Understanding Manufacturer Terms, Labels, and Codes

The shelf life dates of each product can be determined by manufacturer, zoo nutritionist, and food safety organizations guidelines and recommendations. Expiration dates are sometimes easily found and printed on packaging. Common label phrases include "Best if Used By/Before" date, "Sell-By" date, "Use-By" date, and "Freeze-By" date. At the San Diego Zoo commissary, once a product is past its best/use/sell by date, it is considered expired to simplify the process of determining whether a product is past its shelf life. If no expiration date is listed, manufacturer codes can be used to determine expiration. The codes will indicate when the item was produced alongside various information like manufacturing plant, batch number, time & date of production, bag number, etc. Often, having a Julian calendar is helpful in determining the production date. After determining the production date, refer to the manufacturer guidelines to establish the expiration date.

#### **Storage Conditions**

Temperature, humidity, light, and ventilation can extend or shorten the shelf life of products. These factors need to be taken into consideration when determining shelf life especially when packaging is opened, bulk items are broken down into smaller portions, and the bags are re-labeled. Freezing and vacuum sealing may be used to extend the shelf life but are not always recommended.

#### Inventory

Taking routine inventory allows for monitoring of product expiration. Every four weeks the San Diego Zoo commissary takes inventory for finance purposes. On the same spreadsheet, each type of product has multiple areas of input indicating when the product was received, the production date, the expiration date, and if applicable, when the product was placed in the freezer for extended freshness.

# Labeling

Commissary inspections are performed by USDA and IACUC. Products must be properly labeled if they are to be stored for long-term use with either the original documents or in-house made labels. In-house made labels should include the following:

- Proper name of product indicated on the original packaging
- Date of receipt at the commissary
- If applicable, the date the packaging was opened
- If applicable, the manufacturer's lot number or codes
- Expiration date based on manufacturers' recommendation or in-house storage standards using various references on expiration dates.