

NIH SPECIFICATION 52

DRY FEED FOR RODENTS  
(21.5% Protein, 2.4% Crude Fiber, 9% Fat)

1. SCOPE

1.1 This specification is for a commercially available closed formula pelleted ration for rodents which is void of any additives that are known to contain antibiotics or estrogen activity. The diet provides constant level of nutrients taking into account the natural variation in natural ingredients. The actual set of ingredients does not change.

2. APPLICABLE DOCUMENTS

2.1 Specifications and Standards - The following specifications and standards, of the issue in effect on date of invitation-for-bids or request for proposal, form a part of this specification to the extent specified herein.

National Institutes of Health Standards:

NIH STD. 1 - Animal Feed processing and Mill  
Sanitation Standard

NIH STD. 5 - For Nutrient and Chemical Contaminant  
Analyses of Laboratory Animal Diets

(Copies of NIH Specifications and Standards required by suppliers in connection with specific procurement functions should be obtained from the procuring activity or as directed by the contracting officer).

3. REQUIREMENTS

3.1 Material - Material shall be as specified herein

3.1.1 Ingredients - The ingredients used in the formulation of the product covered by this specification must be selected from the following list. **A specification sheet including the ingredient composition and expected nutrient concentrations shall be provided to the NIH at the time of solicitation.**

## Ingredients

Corn (yellow),ground  
Dehulled soybean meal  
Beet pulp,dried  
Fish meal  
Oats, ground  
Brewers yeast,dried  
Cane molasses  
Alfalfa meal, dehydrated  
Whey (dried)  
Wheat germ  
Porcine fat, preserved with BHA  
Porcine meat meal  
Wheat middlings  
Salt  
Calcium carbonate  
DL-methionine  
Choline chloride  
Cholcalciferol  
Vitamin A acetate  
Folic acid  
Menadione dimethylpyrimidinol bisulfite  
Pyridoxine hydrochloride  
Thiamine mononitrate  
Nicotinic acid  
Calcium pantothenate  
dl-alpha-tocopheryl acetate  
Vitamin B<sub>12</sub> supplement  
Riboflavin  
Ferrous sulfate  
Manganous oxide  
Zinc oxide  
Ferrous carbonate  
Copper sulfate  
Zinc sulfate  
Calcium iodate  
Cobalt carbonate  
Sodium selenite

The manufacturer shall determine the amount of each ingredient used in the formulation of this ration that will insure the nutrient content specified in Section 3.1.2 and will be a palatable ration for rodents maintained under laboratory conditions where their physical activity is limited.

3.1.2 Based on the latest ingredient analysis information the finished product at the time of manufacture shall conform to the following calculated standards. Since nutrient composition of natural ingredients varies, analysis will differ accordingly.

Nutrient	Concentration(%)
Crude protein (not less than)	21.50
Crude fat (not less than)	9.00
Linoleic acid	2.20
Crude fiber (not more than)	2.40
Ash (not more than)	5.00

Amino acids (% of total diet)	Concentration(%)
Arginine	1.21
Glycine	0.95
Lysine	1.12
Methionine	0.58
Tryptophan	0.24
Cystine	0.40
Histidine	0.52
Leucine	1.82
Isoleucine	0.91
Phenylalanine	0.98
Threonine	0.80
Valine	1.00
Serine	1.03
Tyrosine	0.66
Aspartic acid	2.07
Glutamic acid	4.57
Alanine	1.33
Proline	1.53
Taurine	0.03

Minerals		Concentration
Calcium	(%)	.80
Phosphorus	(%)	.60
Potassium	(%)	.70
Magnesium	(%)	.16
Sodium	(%)	.26
Chloride	(%)	.64
Iron	(PPM)	170
Zinc	"	120
Manganese	"	110
Copper	"	16
Cobalt	"	.56
Iodine	"	1.50
Selenium	"	.33
Chromium	"	.01

Vitamins

Concentration

Thiamin	PPM	15.0
Riboflavin	"	8.1
Niacin	"	78.0
Pantothenic Acid	"	21.0
Choline	"	2200.0
Folic Acid	"	2.9
Pyridoxine	"	8.0
Biotin	"	0.3
B-12	Mcg/Kg	51.0
Vitamin A	IU/gm	15.0
Vitamin D	IU/gm	3.4
Alpha-Tocopherol	PPM	57.0
Vitamin K	PPM	3.1

- 3.1.3 Proximate Analysis - Analysis for nutrient content of both ingredients and the finished product shall be conducted in accordance with the procedures of the Association of Official Agricultural Chemists (most recent issue). All nutrients contents shall be expressed as a percentage by weight on air-dry basis.
- 3.1.4 Ingredients Standards - Ingredients used in the manufacture of this ration will not be contaminated with any more than 3% of foreign materials such as other grains, weed, seeds, chaff, etc. Manufacturers may be required to provide a significant amount of data to show an effective ingredient quality control program is being followed.
- 3.2 Form - The finished product (extruded biscuits) shall be furnished in the form, as specified: Standard pellets- 10mm x 16mm 25mm(3/8"x5/8"x1")
- 3.3 Nutrient and Chemical contaminant Assays - The product covered by this Specification is subject to nutrient and chemical contaminant analyses assays in accordance with the latest issue of National Institutes of Health Standard No. 5. All assays shall be conducted by an independent laboratory under National Institutes of Health contract.
- 3.3.1 Samples Analyses - A laboratory receiving the samples will be under NIH Contract to analyze them for compliance with section 3.1.2 of this Specification. If nutrient concentrations in these samples are not consistent with the requirements specified in Section 3.1.2 of this specification, the batch of feed from

which the sample was obtained may be rejected and returned to the manufacturer at no cost to the Government.

3.4 Processing Restrictions - All milling and warehousing conditions and/or restrictions as specified in the latest issue of National Institutes of Health Standard No. 1 apply to the feed covered by this Specification

#### 4. QUALITY ASSURANCE PROVISIONS

4.1 Responsibility for Inspection - Unless otherwise specified in the contract or purchase order, the supplier is responsible for the performance of all inspection requirements as specified herein. Except as otherwise specified, the supplier may utilize his own facilities or any commercial laboratory acceptable to the Government. The Government reserves the right to perform any of the inspections set forth in Specification where such inspections are deemed necessary to assure supplies and services conform to prescribed requirements.

#### 5. PREPARATION FOR DELIVERY

5.1 Packaging - The finished product shall be packaged into commercially acceptable 3 ply laminated paper bags. Bags shall be of a quality that will prevent the bleeding of fat to the outside of the bag under all weather conditions. The bags shall be closed in a manner that will insure the delivery of uncontaminated animal feed at the National Institutes of Health.