

<b>FEEDING</b>	Animals must be fed an adequate diet to support their normal condition and weight. [3.9, 3.29, 3.54, 3.82, 3.105, 3.107, 3.129, Policy #25]
<b>Criteria</b>	<p>Dietary regimens must be discussed with and approved by the attending veterinarian.</p> <p>A diet is adequate if :</p> <ul style="list-style-type: none"> <li>• fed in sufficient quantities</li> <li>• contains sufficient nutritive value</li> <li>• appropriate for an individual animal's age, species, size and condition</li> </ul> <p>Animals must be fed at least once a day <b>except</b>:</p> <ul style="list-style-type: none"> <li>• as required for veterinary care</li> <li>• during hibernation</li> <li>• during normal fasting</li> <li>• as required as part of an IACUC-approved protocol</li> <li>• for other professionally accepted feeding practices</li> <li>• juveniles and infants who may require more than once a day feedings</li> </ul>
<b>Species Specific</b>	<p><b>Marine Mammals</b></p> <p>Marine mammals must be fed once a day, <b>EXCEPT</b> as directed by the attending veterinarian. [3.105(a)]</p> <p>Inappetence exceeding 24 hours must be reported immediately to the attending veterinarian. [3.105(c)]</p> <p>Attendants or employees feeding marine mammals individually must be able to: [ 3.105(c)]</p> <ul style="list-style-type: none"> <li>• determine quality and quantity of food</li> <li>• recognize deviations from a normal state of good health</li> <li>• adjust the diet according to the animal's health needs</li> </ul> <p>Public feeding must be done in the presence and under the supervision of a sufficient number of attendants or employees who are:</p> <ul style="list-style-type: none"> <li>• knowledgeable, and</li> <li>• uniformed</li> </ul>

	<p>Public feeding must be done</p> <ul style="list-style-type: none"> <li>• with the proper amount of food</li> <li>• with the proper type of food</li> <li>• only with food supplied by the facility</li> </ul> <p><i>Feeding records</i> [3.105(c)] Feeding records must be kept on the daily food consumption of each marine mammal.</p> <p>An accurate account of food intake must be maintained for marine mammals that are:</p> <ul style="list-style-type: none"> <li>• individually fed, and</li> <li>• not subject to public feeding</li> </ul> <p>An estimated account of food intake must be maintained for marine mammals that are fed:</p> <ul style="list-style-type: none"> <li>• in large, group colonies, and/or</li> <li>• in part, by the general public</li> </ul> <p>Feeding records must be:</p> <ul style="list-style-type: none"> <li>• maintained at the facility for 1 year</li> <li>• available for APHIS inspection</li> </ul>
<b>FOOD</b>	[3.9, 3.29, 3.54, 3.82, 3.105, 3.129, Policy #25]
<b>Criteria</b>	<p>Feed must be:</p> <ul style="list-style-type: none"> <li>• wholesome</li> <li>• uncontaminated</li> <li>• palatable</li> <li>• of sufficient nutritive value</li> <li>• of appropriate size and consistency for the animal's age, species, size and condition</li> <li>• digestible - feed may not be digestible if the following conditions are observed:             <ul style="list-style-type: none"> <li>▸ excessive quantities of feces</li> <li>▸ feces resembles the food product</li> </ul> </li> </ul>

Methods for determining wholesomeness of meat or chicken obtained from a packing plant include, but are not limited to:

- meat marked with charcoal is wholesome for animals
- meat marked with green or blue dye is unwholesome
- chicken marked with red dye is unwholesome

**Species Specific**

**Guinea Pigs**

Guinea pig diets require Vitamin C either as a component of the feed or as a supplement to meet the animal's daily nutritional requirement. [3.29(a)]

The guinea pig's Vitamin C requirement is:

- 10-15mg per day under normal conditions
- 15-25mg per day if pregnant, lactating, or growing

Vitamin C can be provided by: [3.29(c)]

- commercially-prepared feeds with a Vitamin C additive if within 90 days of manufacturing date
- commercially-prepared diets with manufacturer's documentation of Vitamin C viability longer than 90 days, such as:
  - ▶ Harlan Teklab Guinea Pig Diet #7006 (6 months)
  - ▶ Harlan Global High Fiber Guinea Pig Diet #2041 (6 months)
  - ▶ Purina Mills LabDiet® (6 months)
  - ▶ Purina Mills Prolab® (6 months)
- commercially-prepared Vitamin C supplements added to the water
- fresh fruits and vegetables containing Vitamin C (see below)

NOTE: Guinea pigs eat approximately 39 grams of feed per day.

Examples of fruits and vegetables high in Vitamin C include:

- citrus fruits
- broccoli
- mustard greens
- kale
- parsley
- water cress

- turnip greens
- cabbage
- leafy greens

Scurvy is caused by an inadequate amount of Vitamin C.

Signs of inadequate Vitamin C include, but are not limited to:

- posterior paresis
- abortion
- poor hair coat
- respiratory distress
- excessive bleeding during births or abortions
- sudden death

#### **Nonhuman Primates**

Diets must: [3.82(a)]

- be appropriate for the type of nonhuman primate, i.e., prosimians, Old and New World monkeys, and apes (see list of "Commonly Seen Nonhuman Primates" on page 12.3.10)
- contain Vitamin D supplementation for New World monkeys
- contain Vitamin C supplementation for leaf-eaters

Vitamin C can be provided by:

- commercially-prepared feeds with a Vitamin C additive if within 90 days of manufacturing date
- commercially-prepared diets with manufacturer's documentation of Vitamin C viability longer than 90 days, such as:
  - ▶ Harlan's Global Primate Diet #2050 (6 months)
  - ▶ Purina Mills LabDiet® (6 months)
  - ▶ Purina Mills Prolab® (6 months)
  - ▶ Purina Mills Mazuri® (6 months)
- fresh vegetables high in Vitamin C (see below)

Examples of vegetables high in Vitamin C include:

- broccoli
- mustard greens
- kale

- parsley
- water cress
- turnip greens
- cabbage
- leafy greens

Multiple feeding sites must be provided for: [3.82(c)]

- group-housed primates with a dominant individual
- primates fed with other species

Animals must be observed to determine that each animal receives a sufficient quantity of food. [3.82(c)]

#### **Marine Mammals**

Food preparation and handling must be conducted so as to assure the wholesomeness and nutritive value of the food. [3.105(d)]

Fish fed to marine mammals must be wholesome and palatable. [3.105(a)]

Signs of wholesome, palatable fish include, but are not limited to:

- fresh, fishy smell
- firm, elastic flesh
- eyes which are clear and not sunken
- pink or bright red gills
- an abdomen which cannot be opened by running finger down midline
- internal organs which are discernable

Signs of unwholesome fish include, but are not limited to:

- sour odor
- soft, slimy, flabby flesh
- scales that fall off easily
- opaque, sunken eyes
- dry, brown gills
- an abdomen which can be opened by running finger down midline
- internal organs which are indistinct and mushy

Frozen fish or other frozen food must be: [3.105(d)]

- stored, thawed, and maintained until fed in a manner which:
  - ▶ minimizes contamination
  - ▶ retains the food's nutritive value
  - ▶ retains the wholesome quality of the food
- stored in a freezer at a maximum temperature of 0° F (-18° C)
- covered or stored in a manner to prevent freezer burn
- thawed before feeding
- thawed in cold water when standing or running water is used
- fed within 24 hours of:
  - ▶ thawing if thawed under refrigeration, or
  - ▶ removal from the freezer if thawed by any other method

#### **Other Animals**

*Large Felids* [Policy #25]

Commercially prepared diets should be used to feed large felids, such as:

- lions
- tigers
- cougars/pumas/mountain lions
- leopards

Non-commercially prepared diets **must be approved**, in writing, by the attending veterinarian.

The written diet must specify:

- the contents of the diet
- the amount of each ingredient
- any nutritional supplements added, including:
  - ▶ type
  - ▶ quantity
  - ▶ frequency of addition
- amount of food fed routinely
- feeding schedule

Unacceptable diets include, but are not limited to:

- diets composed exclusively of the following without appropriate supplementation:
    - ▶ poultry necks
    - ▶ meat
    - ▶ fish
  - exclusively bakery products
  - spoiled food of any kind
  - unwholesome, spoiled road kill
  - sick animals
  - animals that died of illness or unknown causes
  - animals euthanized with chemical euthanizing agents
  - animals euthanized by gunshot if the lead pellets were not removed prior to feeding
  - downer animals exhibiting signs of central nervous system disorders
- NOTE: Downer animals with physical injuries only may be used for food if properly processed.
- animals known or suspected of having Johne's disease
  - outdated meat from grocery stores if not kept refrigerated or frozen until used

Uneaten food must be removed from pens:

- within 12 hours of feeding, or
- sooner, if the food spoils

In order to mimic their natural feeding behavior, felids may be fasted for 1 or 2 nonconsecutive days per week, if **approved in writing** by the attending veterinarian.

NOTE: During this fasting, the felids should be provided with long, femur bones, oxtails, horsetails, or rawhides.

Young felids not kept with their dams until weaned must be fed a diet **approved in writing** by the attending veterinarian. This diet should be:

- a balanced formula, and
- fed on an appropriate schedule

*Other Animals*

For animals being fed hay in bales, be sure to check the bales to assess the quality of the hay. Some guidelines for assessing hay include, but are not limited to:

- hay should smell fresh
- interior hay should be green
- hay should not be moldy or smell musty/moldy
- hay should not be excessively covered with dust or be caked
- hay should be free of foreign matter

If appropriate, check for mineral blocks or other nutritional supplements.

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**FOOD  
RECEPTACLES**

[3.9, 3.29, 3.54, 3.82, 3.105, 3.129]

**Criteria**

Food receptacles must be:

- accessible to all animals
- located to minimize contamination
- kept clean and sanitary
- maintained to prevent molding, caking, deterioration, contamination, and wetting of food

Non-disposable receptacles must be:

- made of durable material
- cleaned and sanitized regularly
- replaced if no longer properly sanitizable i.e., rough, chewed edges

Disposable receptacles must be discarded after one use.

Self-feeder receptacles must be:

- used for dry food only
- kept clean and sanitary



<p><b>Species Specific</b></p>	<p><b>Dogs &amp; Cats [3.9(b)]</b>                  Food receptacles must be:</p> <ul style="list-style-type: none"> <li>• used to feed the animals</li> <li>• protected from rain and snow</li> <li>• sanitized at least once every 2 weeks if not disposable</li> </ul> <p><b>Guinea Pigs &amp; Hamsters [3.29(d)]</b>                  Food receptacles:</p> <ul style="list-style-type: none"> <li>• are optional</li> <li>• must be sanitized at least once every 2 weeks if used and not disposable</li> </ul> <p><b>Rabbits [3.54(b)]</b>                  Food receptacles must be sanitized at least once every 2 weeks if not disposable.</p> <p><b>Nonhuman Primates [3.82(d)]</b>                  Food receptacles must be sanitized:</p> <ul style="list-style-type: none"> <li>• before being used for other primates</li> <li>• at least once every 2 weeks if not disposable</li> </ul> <p><b>Marine Mammals [3.105(b)]</b>                  Food receptacles must be:</p> <ul style="list-style-type: none"> <li>• cleaned after each use, and</li> <li>• sanitized after each use</li> </ul>
<p><b>FOOD PREPARATION</b></p>	<p>[3.107]</p>
<p><b>Species Specific</b></p>	<p><b>Marine Mammals [3.107(b)]</b>  <i>Food Preparation Areas</i>                  Kitchens and other food preparation areas must be:</p> <ul style="list-style-type: none"> <li>• cleaned at least once daily, and</li> <li>• sanitized at least once a week</li> </ul> <p><i>Equipment and Utensils</i>                  Equipment and utensils used in food preparation must be:</p> <ul style="list-style-type: none"> <li>• cleaned after each use, and</li> <li>• sanitized after each use</li> </ul>

**COMMONLY SEEN NONHUMAN PRIMATES**

PROSIMIANS	OLD WORLD MONKEYS	NEW WORLD MONKEYS	APES
Aye-ayes	African green monkeys	Capuchins**	Bonobos*
Galagos/Bush-babies**	Baboons	Goeldi monkeys	Chimpanzees*
Lemurs**	Barbary apes	Howler monkeys	Gibbons*
Loris	Celebes monkeys	Marmosets**	Gorillas (young*)
Tarsiers	Colobus monkeys	Owl monkeys**	Orangutans*
	Gelada baboons	Saki monkeys	Siamangs*
	Guenons	Spider monkeys*	
	Langurs	Squirrel monkeys**	
	Macaques	Tamarins**	
	Mandrills	Titi monkeys	
	Mangabeys	Woolly monkeys*	
	Patas	Woolly spider monkey*	
	Proboscis monkeys		
	Rhesus monkeys		
	Vervets		

\* - Brachiating species    \*\* - Scent-marking species

NOTE: Tree shrews have been reclassified into the order Scandentia and are no longer considered nonhuman primates.