

Rabbit & Pocket Pet Nutrition

Species Covered in this Lecture

- rabbit
- rat
- mouse
- guinea pig
- gerbil
- golden hamster

Rabbit

Oryctolagus cuniculus



- English angora



- Belgian hare

Rabbit Digestive System

- **Strict herbivores**
- **Hind gut fermenters – cecum**
 - ❖ **excellent use of protein**
 - ❖ **limited fermentation of fiber**
 - ❖ **coprophagy**
 - ⊕ **cecatrophs**
 - ❖ **microbial protein, B-vit, vit k, butyric acid**
 - ⊕ **hard pellets - fiber**

Rabbit Nutrition

- **energy, 2500 kcal/kg-growth, gestation, lactation**
 - 2100 kcal/kg maintenance
- **protein, 15-19%**
- **calcium, 0.8 %**
- **phosphorus, 0.5 %**
- **fiber, 10-15% (alfalfa fiber is best)**
- **vitamins, rarely necessary, alfalfa & coprophagy**

Feeding Rabbits

- **Additional Information**
 - ❖ ~ 5 gm feed/100 gm body weight
 - ❖ ~ 10 gm water/100 gm body weight
- **use rabbit feed**

Rat

Rattus norvegicus



Rat Nutrition

- energy, 4000 kcal ME/kg
- protein, 16-22%
- calcium, 0.5%
- phosphorus, 0.3%

Mouse

Mus musculus



Mouse Nutrition

- energy, 4000 kcal ME/kg
- protein, 18-20 %
- calcium, 0.5 %
- phosphorus, 0.3 %

Guinea Pig (cavy)

Cavia porcellus



Guinea Pig Nutrition

- energy, 2800-3500 kcal ME/kg
- protein, 18-20%
- calcium, 0.8 %
- phosphorus, 0.4 %
- fiber, 15 %

Guinea Pig Nutrition

- require vitamin C
- have higher folic acid requirement
- sensitive to excess Ca, Vit. A, Vit. D
 - ❖ leads to metastatic calcification
 - ❖ mineralization of soft tissues

Feeding Guinea Pigs

- **Additional Information**
 - ❖ ~ 6 gm feed/100 gm body weight
- **Use guinea pig feed!!!**
- **NOT RABBIT FEED**
 - ❖ no vit. C and high in vit. D

Golden (Syrian) Hamster

Mesocricetus auratus



Hamster Nutrition

(little work has been done)

- **energy, 5600 kcal GE/kg**
 - cereal based diet-digested 81.5% of 5600 GE
 - 75% alfalfa diet-digested 50.2% of 4050 GE
- **protein, 18-20 %**
- **calcium, 0.6 %**
- **phosphorus, 0.3 %**
- **fiber, 15%**
 - cereal based diet-digested 45.2% NDF
 - 75% alfalfa diet-digested 33.4% of NDF

(Mongolian) Gerbil
Meriones unguiculatus



Gerbil Nutrition

(almost no work)

- energy, 4000 kcal ME/kg
- protein, 16%
- calcium, 0.5%
- phosphorus, 0.3%
- are often fed rodent diets