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RAISING GUINEA PIGS

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U.S. DEPARTMENT OF AGRICULTURE • LEAFLET NO.466

RAISING GUINEA PIGS

Before 1870, guinea pigs were kept exclusively as pets. Since that date, their use by Pasteur, Koch, and other scientists in experiments has established their value in studying disease symptoms of humans and animals. Because their reactions to different tests are now well known, guinea pigs are valuable in genetic studies, in analyzing the effects of drugs, in standardizing vaccines and serums, and in determining the vitamin content of foods.

DESCRIPTION

The guinea pig is a quiet, gentle rodent with a short, stocky body, short ears, short legs, and no tail. Adult guinea pigs weigh about $1\frac{3}{4}$ to $2\frac{1}{2}$ pounds; they are vegetarians, are relatively easy to keep, and breed rapidly. The principal types differ from one another in hair characteristics and color. All domesticated guinea pigs are descended from stock originally found in the Andes Mountains of Peru.

A guinea pig's hair may be smooth and short, rough and short, or silky and long. The short-haired, English variety of guinea pig is the most common. The coat of the Abyssinian guinea pig is short and rough; the Peruvian variety is long-haired. Generally, the English guinea pig is the type used in laboratory work and most successfully raised commercially.

Most guinea pigs have solid colors—black, white, brown, red, tan, or gold. Some have hair of mixed colors, alternating in bands of light and dark fur. Others are characterized by solid colors with white spots. Commercial breeders have developed various colors and color combinations. Guinea pigs with two or even three colors are not uncommon,

BUYING AND SELLING

Guinea pigs may be bought from pet stores or laboratory supply houses. For names of dealers and reference books, write to the Institute of Laboratory Animal Resources, National Research Council, National Academy of Sciences, 2101 Constitution Avenue NW, Washington, D.C. 20402. There is no charge for this service.

The Department of Agriculture does not purchase or sell guinea pigs and has none for free distribution.

The Laboratory Animal Welfare Act requires commercial raisers of guinea pigs to obtain a license, pay an annual fee, and comply with the act's provisions. Research facilities must register and acknowledge the act's standards. For additional information and a copy of this act, write to the Director, Animal Health Division, Agricultural Research Service, U.S. Department of Agriculture, Hyattsville, Md. 20782. There is no charge for this service.

Breeding guinea pigs are usually sold in pairs or in trios of one male and two females. These animals are usually more expensive than general laboratory stock. Producers of



39265-B

The English or short-haired guinea pig.

laboratory animals usually sell to hospitals, laboratories, or dealers.

Before investing in guinea pigs, find out if you can sell laboratory animals in your area. Determine whether guinea pigs are needed or whether other laboratory animals are used. If there is a demand, you can select breeding animals and plan their housing and feeding.

Do not expect to make large profits immediately by raising laboratory animals. Most successful producers have succeeded only after years of patience and experience.

HOUSING

Guinea pigs may not be housed with any other species of animal. They should be housed indoors, and the temperature must be kept between 60° and 85° F. Ventilation to minimize drafts, odors, and dampness may be supplied through windows, doors, or air conditioners. Lighting should be adequate to permit routine inspection and cleaning.

In mild climates, guinea pigs may

be placed in pens outdoors, provided some shade is available to them. If you raise guinea pigs commercially, before housing them outdoors you must first obtain the approval of the Director of the Animal Health Division, Agricultural Research Service.

Because guinea pigs usually do not climb, jump, or gnaw on wood, the pens need not be elaborate. Most pens have screen wire or hardware cloth across the top, as well as across the sides.

A pen 30 by 36 inches and 12 to 15 inches high is large enough for one male and five breeding females. A larger pen, 5 by 10 feet and 1 to 1½ feet high, can accommodate 30 to 40 guinea pigs.

Provide a shelf about 4 inches above the floor in a shaded corner of the pen. Guinea pigs like to sleep on a shelf; females and their litters will seek shelter under it.

Cover the pen floors with wood shavings, shredded paper, straw, or similar material to absorb moisture.

Clean the pen floors at least once a week.

FEEDING

Feed your guinea pigs a balanced diet and supply them with fresh water daily. Suspend their feed cups and water bottles above their bedding to prevent contamination by waste and dirt.

Ground oats and wheat bran can supply the grain portion of their ration. Commercially prepared laboratory chows, made especially for guinea pigs and available in pet and feed stores, consist of a mixture of grains and minerals compressed into pellets. A ready-made ration recommended for rabbits can substitute for the commercial guinea pig preparation.

Guinea pigs cannot produce their own vitamin C; without it they develop scurvy. Some pellets supply all vitamin C requirements, but this vitamin's potency lasts only a short time. Supplement your guinea pigs' diet with fresh greens or hay. Green

alfalfa, green cabbage, lettuce, kale, lawn clippings, and similar plants all supply vitamin C. When abundant, fresh greens satisfy their need for water.

GROWTH

Guinea pigs are vigorous and can care for themselves almost from birth. They are born with hair and teeth, and with their eyes open. Within an hour after birth they are able to move about. After 2 or 3 days they can eat solid food.

Leave the young with their mother for 3 to 4 weeks. Keep them in the same pen with their parents, but never with other adults.

Young guinea pigs gain weight rapidly and weigh about one-half pound in about 4 to 6 weeks. Young of this weight are preferred for many experiments. For the next 18 months their growth rate is slower.

At maturity, an adult male may weigh $1\frac{3}{4}$ to $2\frac{1}{2}$ pounds. At 18 months of age, unbred females are



The Abyssinian or rough-haired guinea pig.

33615-B



39263-B

The Peruvian or long-haired guinea pig.

usually about 2 ounces lighter than males. Guinea pigs have lived past 7 years of age.

Guinea pigs produce young until they are 3 years old, and may continue to breed until the age of 5.

BREEDING

Guinea pigs are prolific, and it isn't difficult to build up a sizable herd within a year or two.

Female guinea pigs (sows) become sexually mature 30 to 45 days after birth and will breed at this age. Estrus occurs every 14 to 17 days and lasts about 24 hours.

Male guinea pigs (boars) become sexually mature about 60 days after birth. Remove those not to be used for breeding when 40 to 50 days old and place them in separate pens.

The gestation period of the guinea pig lasts 65 to 70 days, and a vigorous sow may give birth to four or five litters a year. The average litter contains three young, but some litters contain five or more.

The female comes into heat immediately after giving birth and usually mates within 10 to 12 hours. To insure regular mating, place the female in the same pen as the breeder male at this time.

HEALTH

When laboratory guinea pigs develop a rough coat, lack appetite, or lose weight rapidly, a disease is probably the cause. Because many of the symptoms of diseases that affect guinea pigs are similar, even a trained person may have difficulty in distinguishing one disease from another. Your veterinarian can recommend the best measures to control and eradicate disease.

Sulfa drugs or antibiotics can be used in treating most infectious diseases of guinea pigs. These drugs should be used as approved by the Food and Drug Administration and only with professional advice; incorrect dosages can injure your animals.

With some diseases, the best procedure is to dispose of the infected or exposed animals promptly and humanely. Burn the carcasses or bury them deeply. Burn all refuse and disinfect the animals' pens. Use

one of the commercially available disinfectants that contain cresol, obtainable at most drugstores.

DISEASE PREVENTION

You can do several things to guard against outbreaks of disease.

- Sanitize pens and food receptacles at least once every 2 weeks. Wash them with hot, soapy water at 180° F.; then apply a safe, effective disinfectant.

- Feed your guinea pigs a balanced diet. Guard against food contamination by rats or mice.

- Provide fresh drinking water in clean containers daily.

- Never transfer water or feed containers from one pen to another.

- Protect your guinea pigs from cold, drafts, and excessive moisture. At temperatures lower than 60° F., they may get colds or other respiratory diseases, such as pneumonia, and the young may be dead at birth or may die soon thereafter.

If disease breaks out in your guinea pig colony—

- Thoroughly sanitize the pens in which the diseased animals have been kept.

- Wait several weeks before obtaining new stock.

- Isolate new animals to prevent

exposure to potential carriers and to reduce the possibility of introducing disease into a clean colony.

CONTROLLING LICE

Guinea pigs, frequently infested with lice, may be deloused by dipping or dusting with powder containing the insecticide rotenone. Keep a careful record of the insecticide's strength and the date of treatment. Many buyers need this information for planning experiments; without it, the application of insecticide could jeopardize the success of experiments.

Dipping is the most effective method of treating guinea pigs for lice. To prepare the dip, take soapy water and mix 10 tablespoons (2 ounces) of 3- to 5-percent rotenone with each gallon of the water.

A single dipping is usually sufficient; at the same time be sure to clean the pens and dust them with rotenone as well. Between dippings, dust the guinea pigs with 3- to 5-percent rotenone to control lice.

PRECAUTION

Pesticides used improperly can be injurious to man, animals, and plants. Follow the directions and heed all precautions on the label.

Prepared by

ANIMAL HUSBANDRY RESEARCH DIVISION
AGRICULTURAL RESEARCH SERVICE



Use Pesticides Safely
FOLLOW THE LABEL

U.S. DEPARTMENT OF AGRICULTURE

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