COOPERATIVE EXTENSION
SAN LUIS OBISPO COUNTY
4-H YOUTH DEVELOPMENT PROGRAM

CAVY LEVEL TESTING
STUDY GUIDE

13 BREEDS OF CAVY ACCEPTED BY A.R.B.A.

-**American**: Short, smooth coat that is the same length from nose to rump.
-**American Satin**: Short, smooth coat from nose to rump, with a very shiny sheen to its coat from hollow hair shafts.
-**Abyssinian**: Medium length coat with numerous rosettes/ridges on the body from nose to rump.
-**Abyssinian Satin**: Medium length coat, with numerous rosettes/ridges on the body from nose to rump with a very shiny sheen to its coat from hollow hair shafts.
-**Coronet**: Long coated, with a single rosette on its head between its ears.
-**Peruvian**: Long coated, with numerous rosettes on the body and hair that grows over the face.
- **Peruvian Satin**: Long coated, with numerous rosettes on the body, hair that grows over the face, with a shiny sheen to its coat from hollow hair shafts.
-**Silkie**: Long coated, with hair that grows straight back from the head to the rump.
-**Silkie Satin**: Long coated, with that grows straight back from the head to the rump with a shiny sheen to its coat from hollow hair shafts.
-**Teddy**: Short kinky/wiry resilient coat that resembles a "teddy bear".
-**Teddy Satin**: Short kinky/wiry resilient coat that resembles a "teddy bear", with a shiny sheen to its coat from hollow hair shafts.
-**Texel**: Long coated with ringlets or curly hair from the shoulders to the rump.
-**White Crested**: Short, smooth coat that is the same length from nose to rump with a single white rosette on its head between its ears.

HOUSING: It is important to have adequate housing for a cavy before you bring it home. Cage flooring should **NEVER** be wire or wire mesh. Wire mesh flooring is not recommended as a result in injuries to the feet called Bumble foot. Cavies have very soft feet pads and over extended periods of time, this type of wire flooring can result in foot pad infections, from abrasive rubbing on wire. Although solid flooring requires more effort to keep sanitary, it is much safer for the cavy. It is important to clean their cage at least once a week for a single cavy, twice a week if two cavies share a cage.

Bedding materials must be clean, non-toxic, absorbent, relatively dust-free and easy to replace. Cedar and Redwood have been associated with respiratory infections and liver disease in some cavies, and therefore should not be used. Corn cob bedding, walnut and other food byproduct materials are also not recommended as fungal spores are more likely in these. Saw dust should also be avoided since it tends to accumulate within the external genitalia of boars, potentially causing an Impaction (a health problem in the male genitalia). Pine shavings, Aspen shavings, and shredded news paper are recommended, as these products are more hygienic, absorbent and less likely to be consumed or cause respiratory irritation.

HEALTH PROBLEMS: ***Malocclusions (over-grown teeth)*** - The primary cause for this condition is overgrowth of the premolars and/or molars. Most often this occurs in older cavies and usually involves the premolars (the most forward positioned cheek teeth). The overgrowth is due to improper alignment of the teeth when chewing. The overgrown tooth causes injury to the cavies tongue and gums resulting in an inability to chew and swallow food, drooling (slobbers), and weight loss. The diagnosis is confirmed by a veterinarian by an examination of the mouth using general anesthesia. Dental work in the mouth of a cavy is difficult due to the extremely small mouth opening. Cavies with this problem should not breed since dental Malocclusions are often hereditary.

Scurvy (Vitamin C Deficiency) - Cavies cannot manufacture Vitamin C and must receive an adequate supply from food sources. The lack Vitamin C in the diet results in Scurvy. The symptoms of Scurvy include poor appetite; swollen, painful joints and ribs; lethargy; poor bone and teeth development, and hair thinning. If left untreated, this disease can be fatal, especially to babies and pregnant sows. The mandatory level of Vitamin C is supplemented in commercial cavy pellet food. However, with improper storage and handling these pellets lose their potency rapidly. This is why it is always important to give your cavy extra fruits and veggies with high Vitamin C content to make up for what their pellets may be lacking.

Barbering (hair chewing) - "Barbering" occurs when cavies chew on the coat of other cavies that are lower than them in the social "pecking order" or as a result of over-grooming. There is no treatment for this condition except separating the cavies. Hair loss or hair thinning can occur for a number of other reasons as well. It is a common among sows that are over-bred or weakened and freshly weaned cavy pups. Certain fungal diseases and external parasites can also cause hair loss.

Heat Stress (stroke) - Cavies are very susceptible to temperature changes, particularly cavies that are overweight or heavily coated. Cavies can live comfortably in temperatures between 55-75 degrees. 80 degrees or higher, high humidity, inadequate shade and ventilation, or overcrowding are additional factors of heat stress. Signs of heat stroke include panting, slobbering, weakness, reluctance to move, convulsion, and death. Heat stressed cavies should be misted with cool water or bathed in cool water. Prevention of heat stoke involves providing shade and proper cooling ventilation. In addition a cool misting of water and/or a fan can be directed toward the cavy's cage. Air conditioning during provides the best method of cooling.

Pneumonia (infection of the lungs) - Respiratory infections are common diseases of a cavy. Respiratory infections are caused by a number of viruses and bacteria. Many of the disease causing organisms inhabit the respiratory tracts of normal cavies. Conditions of stress, poor diet, and improper housing will often set the cavy up for an infection in their lungs. Symptoms of Pneumonia may include difficulty breathing, discharge from the nose and eyes, lethargy, and decreased or no appetite. In some cases, sudden death will occur without any of these signs.

Head Tilt (ear infection) - Middle or inner ear infections usually accompany respiratory infections in cavies. Symptoms include the head being tilted and circling to one side. A bacterial culture of the throat and/or nasal discharge will assist the veterinarian in the selection of an

appropriate antibiotic. Unfortunately, even though elimination of the symptoms is often possible with appropriate treatment, eradication of the bacteria is not.

Bacterial Enteritis (Intestinal Infection) - A number of bacteria are capable of causing infections of the gastrointestinal tract in cavies. Some of these bacteria are introduced through contaminated greens or vegetables or in contaminated water. The most common bacteria that cause intestinal disease in cavies are Salmonella and E. coli. In addition to diarrhea, lethargy and weight loss usually occur. In other cases sudden death may occur before expression of these signs. A bacterial culture of the stool will greatly assist the veterinarian in choosing an appropriate antibiotic.

Pododermatitis (Bumble-Foot) - Severe infections of the foot pads are very common among cavies housed in cages with wire flooring. The cavy's front feet are most susceptible to this condition. Symptoms of this condition include swelling of the feet, lameness, and reluctance to move. Improved sanitation and different flooring are the initial steps in correcting the problem. In addition, the feet themselves should be treated by a veterinarian. Topical dressing with an antibiotic and periodic bandaging is often required. Bumble-foot usually takes months to fully heal. In severe cases, amputation may be necessary. A possible long term affect of bacterial infections of the feet and hocks is arthritis.

External Parasites (Lice and Mites) - Lice and mites are the most common external parasites of cavies. Lice are tiny, wingless, insects that can live within the coats of cavies. Both the adults and eggs are found attached to hair shafts or on the skin. Mites are microscopic, spider-like organisms that affect the top layers of skin. People cannot become infested with these parasites as they are species specific.

Mite infestations are usually more severe than lice. Most commonly, sarcoptic mange mites live in the outer layers of skin causing an intense itching and scratching with hair loss. In some cases, they present without the itching and scratching, but only hair loss and crusting of the skin. A veterinarian can diagnose the mite infestation by performing skin scrapings and viewing them under the microscope. Successful treatment consists of using anti-parasitic drugs at calculated intervals, such as Ivermectin. Cages should be entirely cleaned out, and disinfected with water and bleach. Puppy/Kitten flea shampoos can be used to wash the cavy and help eliminate the infestation.

Lice infestations are usually accompanied with excessive itching, scratching and some hair loss. Scabbing on or around the ears may also be evident. A veterinarian can confirm the diagnosis of lice infestation by examination of the coat as well as microscopic examination of the hair. As with mites, lice transmission occurs through direct contact with infested cavies. Pet cavies are not likely to have this parasite unless they had previous exposure to lice-infested cavies. Lice and mites are most commonly transmitted at shows from infested animals. It is best to inspect your cavy once every month for any parasites.

BREEDING: The single most important consideration regarding cavy breeding is that the female cavy (sow) should be bred before 12 months of age, if she is to be bred at all. If the first breeding is delayed much beyond this time, serious, and often fatal problems with delivery may

result. The reason for this is that the pelvis of the cavy fuses at this early age which narrows the birth canal, preventing the babies from passing easily. Females also tend to have issues with ligaments that support the uterus which can cause a prolapse or other medical problems if bred too often. Males (boars) can be fertile as early as 4 weeks old and can impregnate a female in estrus at any age. Cavy breeding is not recommended unless you are experienced in the care, medical problems, and complications involved in breeding. This is why it is important to keep males and females separate.

The sow's estrus cycle or "heat" lasts 14 to 19 days. The actual period in which the sow is receptive to the boar for breeding is approximately 8 to 15 hours during this cycle. Sows often return to "heat" within a few hours after giving birth. This time is known as "postpartum estrus" which means that she can be nursing one litter while being pregnant with another.

Pregnancy lasts between 62 and 72 days. The gestation is shorter with larger litters, and longer with smaller litters. There is no sure way to tell that a female is pregnant except that she may be more irritable, her appetite may increase and the male will show less interest in mating with her. Of course the most obvious sign is that she is getting very "plump" or "pear-shaped" and you may be able to feel light fluttering or kicking in her belly at about 6 weeks. Pregnant sows should be handled with extreme care as to not cause a miscarriage.

Body weight may actually double during pregnancy. The time of delivery is difficult to assess in cavies due to the long gestation period and lack of nest building. Although it is nature for cavies to have died during delivery, surgery of any kind is not recommended due to the fact cavies do not recover well from anesthesia, if at all.

An uncomplicated delivery usually takes about 30 minutes with an average of 5-10 minutes between babies. Litter sizes range between 1 and 6, with an average of 2 to 3. First time litters are usually smaller. Unfortunately, stillbirths are very common in cavies.

The young are very well developed at birth. They weigh between 6 to 9 ounces and have a full coat. Cavies are even born with teeth and with their eyes open. Mothers are not very maternal in the raising of the offspring, in that they do not build a nest. The young can actually eat solid food and drink from a bowl shortly after birth, but they should be allowed to nurse for 3 weeks before weaning.

HANDLING: Generally, cavies are docile, non-aggressive animals. They rarely bite or scratch when handled, unless they smell food or are panicking. They usually voice their protest simply by letting out a high pitched squeal. They may, however, struggle when being picked up or restrained. Extreme care should be taken not to injure them during handling. The cavy should be approached with both hands. One hand is placed under the cavy's chest and abdomen, while the other hand supports its hindquarters. Adults, and especially pregnant sows, should receive careful attention to gentle, yet firm and total support. This can also be accomplished by wrapping the cavy in a towel like a "burrito" before picking him/her up or using a "cuddle pouch" which is a small fleece pillow case. It is important to always wear long sleeved shirts when handling or showing a cavy so that you arms and wrists do not get injured or scratched if the cavy becomes panicked. When transporting a cavy, it is good to use a carrying cage made with a solid bottom.

Cat carriers are fine to use as well as carriers made specifically for cavies. Never use cardboard boxes for long periods of time because they will become soiled and leak.

FEEDING: Cavies need fresh water, good quality food and fresh hay everyday to stay happy and healthy. Commercially available pellets from a feed store provide all the essential nutrients required by cavies, as long as the pellets are fresh when offered. These pellets contain 18-20% protein, 16% fiber, and approximately 1 gram of vitamin C per kilogram of food. Typically, pregnant and young cavies should have an alfalfa based pellet. Older cavies are better on a Timothy-based pellet. Do not feed rabbit pellets as a substitute for cavy pellets. They are not equivalent in nutritional value. Plenty of Timothy hay or orchard grass should be given daily as it has many nutrients they need for digestion and it also helps prevent their teeth from becoming over-grown.

Unlike most mammals, cavies cannot manufacture their own Vitamin C and therefore they must receive it from an outside source. Most store bought pellet cavy diets are supplemented with necessary levels of this essential vitamin. Despite proper storage (a cool dry area) pellets lose about half of their vitamin C due to degradation within 6 weeks of manufacture. For this reason we also recommend further vitamin C supplementation in the diet. Refer to the accompanying table for a list of greens, fruit, and vegetables with respective vitamin C levels. Water supplementation is not advised, as the vitamin C degrades in water within a few hours.
The fresh fruits and veggies must be washed to avoid exposing your pet to pesticides or bacteria. The hay provides the necessary fiber for digestion. Any change in the cavy's diet should be made gradually, as the digestive tract of this herbivore is very sensitive to rapid change in consumed items. Cavies tend to be creatures of habit, and tolerate neither major changes in the presentation of their food or water, nor changes in the taste, odor, texture, or form of the food itself. Pet owners should avoid making radical changes with the food or water containers as well. Any sudden change in routine can result in the pet refusing its food and water, which can be ultimately dangerous to its health. Because cavies are herbivores, they cannot eat meats or bread. Do not offer these to them as they can become ill.

All foods should be provided in heavy ceramic crocks that resist tipping and chewing. The crocks should be high enough to keep bedding and fecal pellets out of the food, but low enough for easy access by the animal. Water is most easily accessible by the use of a water bottle equipped with a "sipper" tube. cavies tend to contaminate and clog their water bottles by chewing on the end of the sipper tube and "backwashing" food particles into it. For this reason, it is important that all food and water containers be cleaned and disinfected daily.

GROOMING: Grooming is a great way to bond with your cavy and work on training them for the show table. Different breeds require different methods of grooming. 3 tools that all exhibitors should own are nail clippers, a small comb, and a shammy cloth. These tools will work for all breeds to keep them trimmed and clean. Cavies need to have their nails trimmed about every 3-4 weeks. You want to be careful not to cut them too short and not hurt your cavy. If you do, apply a clean tissue and pressure to the toe. If it continues to bleed, you'll need to apply a "stop-bleed" powder or chalk to the toe.

A small comb or brush comes in handy for a long coated breed. They are prone to getting matting and tangling in their coats, especially around the legs and rump. Short and smooth coated breeds do not need to be brushed. They require a shammy cloth to wipe their coat smooth of any dust or lose hair. Most times you can simply use your hand to groom smooth coats or medium coats. The natural oils and moisture in your skin helps the lose hair stick and be removed as you pet your cavy. Cavies with rosettes require virtually no grooming.

All cavies have a "grease gland" that is on their rump (more prominent in boars), right above where their tail would be, if they had one. This gland makes a sticky, grease-like build up that can cause dirt and dust to collect. It is important to check and clean the grease gland about once a month. It can be cleaned with Dawn dish soap or puppy/kitten shampoo. The purpose of this gland is for cavies to mark their territory in nature. You may see you cavy dragging its bottom on the flooring of its cage. This action causes the gland to secrete the grease that is wiped on the surface with an odor and alerts other cavies of its territory.

GENERAL: Always be sure to check the cavy thoroughly prior to show for parasites, sores (abscesses) and lumps, broken teeth or mouth sores, bald spots or barbering, ears for tears or wax buildup, any problems with the eyes such as pea eye (fatty protrusions) or wall/moon eye (glazed appearance), broken toes or bones, extra toes (polydactyl), or discharge from its eyes and nose. Also watch the cavy's behavior to make sure they are active, eating and drinking enough, bright-eyed, not limping or lethargic. These are all signs that your cavy may be ill or injured and may be disqualified from show. To be shown, they must have an ear tag with a legible series of letters and/or numbers. The tag is permanent, like an earring, and is to be placed at the top of the cavy's left ear. This is required so that cavies do not get mixed up while on the judging table.

SHOWING: Cavies come in many varieties (color groups). A.R.B.A. (American Rabbit Breeders Association) recognizes the following varieties in these 5 groups:

SELF	**AGOUTI**	**SOLID**	**MARKED**	**TAN PATTERN**
-Beige	-Dilute agouti	-Brindle	-Broken Color	-Black
-Black	-Golden agouti	-Roan	-Dalmatian	-Blue
-Chocolate	-Silver agouti	-Dilute solid	-Dutch	-Chocolate
-Cream		-Golden solid	-Himalayan	-Lilac
-Lilac		-Silver solid	-Tortoise shell white (TSW)	-Beige
-Red-eyed orange (REO)				
-Red				
-White				

**White Crested is the only breed that cannot be shown in the MARKED group because the only white that a White Crested can have on its body is on its crest (or rosette). This also means that a White Crested cannot be a roan.

CAVY FACTS:

Scientific name:……..… *Cavia Porcellus (Latin for "little pig")*

Life Span:…….…….. 4-6 years

Environmental temperature range:…….. 50-75 degrees

Gestation Period……..…….. Average 62-72 days

Litter Size…….…… Average of 2-3

Weaning Age……..... 3 weeks

Vitamin Content of Certain Foods

Item Vitamin C (mg)

Turnip Greens……...……. 260

Mustard Greens…….. 252

Dandelion Greens……...…… 200

Kale……...…… 192

Brussels Sprouts…….……...…….. 173

Parsley……...…….. 140

Collard Greens…….…….. 140

Guavas……...….. 125

Broccoli Leaf……...…… 120

Beet Greens……...……. 100

Cauliflower*……..…….…… 100

Kohlrabi…….. 100

Strawberries……...…….. 100

Honeydew Melon……..…….. 90

Broccoli Florets*……...…….. 87

Spinach……..…….…… 60

Raspberries……..……...….. 60

Orange…….…… 50

Cabbage* (all leaves & Chinese cabbage)……...….50

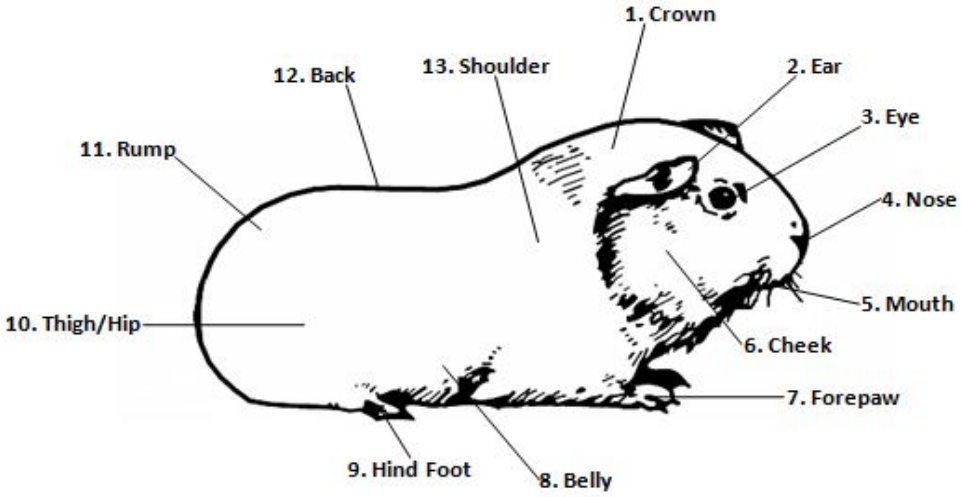
Carrots…….. 34

*Broccoli *stem* has NO vitamin C

*Cabbage should be given sparsely (not daily)

*Cauliflower and Broccoli should be given sparsely (not daily)

Parts of the Cavy



1. _____
2. _____
3. _____
4. _____
5. _____
6. _____
7. _____
8. _____
9. _____
10. _____
11. _____
12. _____
13. _____

Name:_____ **Club:**_____

CAVY - Activity
The Cavy Researcher

The Cavy Researcher can be done at any time. You don't have to complete levels 1-4 in order to complete this activity. You must complete both steps I and II. This is to be done under the guidance of your cavy leader. The cavy leader should also recognize the activity when it is complete.

Step I:
Conduct and report on the results of a research project comparing measurable differences in management procedure.

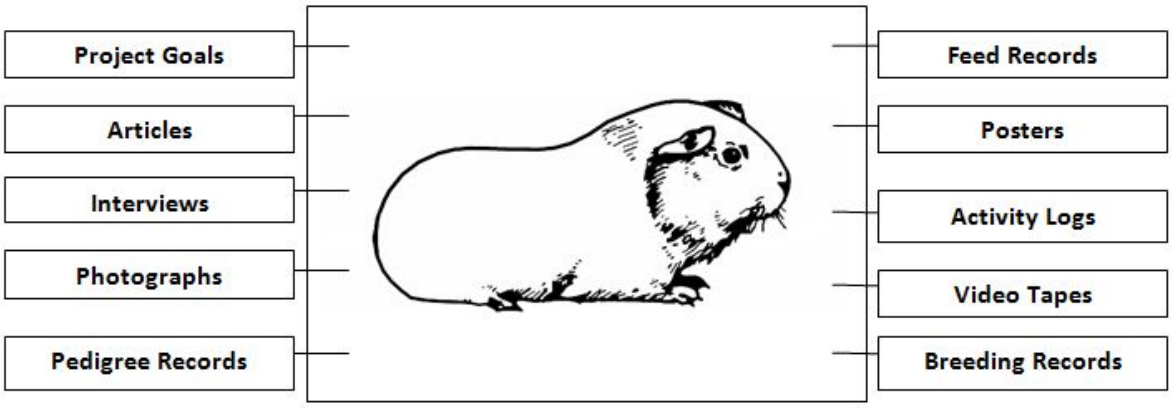
- Explain how age, environment, genetics, diet, or other factors make for a quality Cavy.

Step II
Prepare a paper of 1000 words or more, or a portfolio (see attached portfolio information sheet) on one of the following subjects.

- Management of Cavies.
- Cavy feeds, feeding, and nutrition.
- Cavy diseases, prevention, control, and general sanitation.
- Markets and methods of marketing Cavies.
- Reproduction, breeding, and genetics of Cavies.
- Keeping and using records as a basis for improving your 4-H Cavy project.

Name:_____ **Club:**_____

WHAT MIGHT GO INTO A PORTFOLIO?



What Goes Into a Portfolio?

As you think about what to include in your portfolio you will gain new understandings (even surprises) of the Cavy Project and of yourself as a Cavy Raiser. There is no right or wrong answers about what to include in your portfolio, however; they usually include easy-to-find statements about:

- Description of the project.
- Project goals.
- What you did to achieve goals.
- Explain what you learned of this project.

The portfolio should include whatever you think will tell your story the best. For example, statements of project goals, photographs, listing adult volunteers, examples of cavy breeding, description of your activities, videotapes of events, graphs, charts, selections from your personal journal that you keep on the project, an essay about what you are learning, newspaper clippings about your project, anything that makes sense to you and help tell the story. Most people will probably create individual portfolios, however; teams can also make exciting portfolios for specific activities.