Rabbit Project Manual

A Senior Project

presented to

the Faculty of the Agriculture Education and Communication Department

California Polytechnic State University, San Luis Obispo

In Partial Fulfillment

of the Requirements for the Degree

Agricultural Science, B.S.

by

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June, 2014

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Abstract

The purpose of this study was to create a rabbit project manual for agriculture teachers to help provide another supervised agriculture experience (SAE) project to those students who cannot participate in the traditional livestock projects.

SAE projects give students the opportunity to learn by doing by participating in agricultural projects outside of the classroom. FFA members are able to gain hands-on, real world agriculture education in the field that most interests them. Because of lifestyles changing and more people moving to a more urban environment student SAE projects are changing. Small animal projects allow students who have an interest in animals but who live in an urban area and do not have facilities to keep larger animals the opportunity to participate.
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Chapter One

Introduction

During the 2010-2011 school year high school agriculture education reached over 70000 students. Agriculture education is broken down into three major components, classroom and laboratory instruction, FFA, and Supervised Agriculture Experience project (SAE). A SAE project allows students to apply the knowledge and skills they learn in the classroom and laboratory into real life situations. There are many different options for SAE projects that students are able to choose from that are broken into four different categories.

Entrepreneurship

Own and operate an agricultural business (e.g. a lawn care service, a pay-to-fish operation, holiday poinsettia production and sales.)

Placement

Get a job or internship on a farm or ranch, at an agriculture-based business, or in a school or factory laboratory.

Research and Experimentation

Plan and conduct a scientific experiment. (e.g. Determine whether the phases of the moon affect plant growth, or test and determine the efficacy of different welding methods.)
Exploratory

Explore careers in agriculture by attending an agriculture career fair, or creating a report or documentary on the work of a veterinarian. (FFA.org)

Some of common SAE projects are growing plants or crops, ornamental horticulture, floral design, agriculture mechanics projects, and the most popular raising livestock for the local county fair. Animal projects are the most popular, but because of people moving to a more urban lifestyle students do not have the facilities to house their projects, and a lot of high schools do not have school farms for their students so students house their projects.

Statement of the problem

In this economy and change in life styles more and more students in agricultural programs are not able to participate in the traditional supervised agriculture experience (SAE) projects. More people are moving into a more urban area which prevents students from having a traditional livestock or production agriculture project at home and students are growing up having no agriculture or large animal experience (Barrick, 1992). There needs to be other options for these students to gain agriculture experience. Rabbits are a great project for students who do not have a lot of room, live in the city limits, don’t have a lot of money, or want to start with a small animal project before moving to a larger animal. The problem is that a lot of agriculture teachers have no experience with rabbits and do not know how to get the students started.

Importance

Students are required to have a SAE project, ideally one that interests them. Small animal projects allow students who have an interest in animals but do not have facilities to keep larger animals
the opportunity to participate. This project helps agriculture teachers gain knowledge about rabbits, the rabbit industry, and showing rabbits, so they can encourage students who are unable to participate in traditional SAE projects to participate and be able to gain hands on knowledge about agriculture.

**Purpose**

The purpose of this project is to develop rabbit project manual for agriculture teachers to help them develop SAE projects for their students. This manual will teach agriculture teachers about rabbits, the rabbit industry, and showing rabbits.

**Objectives**

The objectives to accomplish the purpose of this project are as follows:

1. Provide agriculture instructors with a manual for small animals
   a. Manual can provide parents and students with information on a rabbit SAE
   b. Can also be used by 4-H leaders as well as others starting a rabbit project
2. Create an electronic version that can be uploaded
3. Provide students with additional options for SAE projects
4. Provide a SAE option for students who live in an urban area or who do not come from an agricultural background
5. To give students another way for students to earn a profit form a SAE

**Definition of important terms**

**FFA**- an educational, nonprofit, nonpolitical youth organization for students enrolled in school-based agricultural education programs.
SAE- Supervised Agriculture Experience- Is the planned application of concepts and principles learned in agricultural education. Students are supervised by agriculture teachers in cooperation with parents/guardians, employers and other adults who assist them in the development and achievement of their educational goals. The purpose is to help students develop skills and abilities leading towards a career (Barrick, 1992).

ARBA- American Rabbit Breeders Association- The ARBA is an organization dedicated to the promotion, development and improvement of the domestic rabbit and cavy (ARBA)

Learn by Doing- Hands on learning in real life situations

Summary
Every year Agriculture education is growing, and many of the incoming students do not come from an agriculture background and live in an urban area. Many of these students are not able to participate in the traditional SAE projects like raising livestock for the county fair. Agriculture teachers have to come up with projects that these students can do that interests them. Rabbits are a great project for students who live in an urban area and do not have a lot of experience with animals because they are small, and also give these students the opportunity to earn a profit from their project.
Chapter Two
Review of Literature

FFA makes a positive difference in the lives of students by developing their potential for premier leadership, personal growth and career success through agriculture education. (National FFA Organization 2007, cover page). The FFA and agriculture education use three circles, which are classroom and laboratory instruction, FFA, and supervised agriculture experience (SAE) to develop their student’s potential, and prepare them for successful careers. Because of lifestyles changing and more people moving to a more urban environment student SAE projects are changing.

Supervised Agriculture Experience

A SAE Project gives students the opportunity to learn by doing by participating in an agricultural project outside of the classroom. FFA members are able to gain hands-on, real world agriculture education in the field that most interests them. (Solomonson, pg. 5) There are four categories of the SAE program which are exploratory, agriscience research and experimentation, entrepreneurship and placement (Thies, pg. 11). A SAE project also teaches very important life skills such as responsibility, record keeping, work ethic, and time management. FFA members can choose from raising an animal for the local county fair, having a livestock breeding project, growing a plant, tending to a garden, working at a vet clinic, working at a feed store, working for an agricultural company, and much more. Through these projects students are also able to explore different career fields and get involved in bettering their communities.
Traditional SAE

According to Dryer and Osborn each of the three circles has undergone changes, but the SAE circle has undergone the most (Dryer & Osborne, 1995, p. 10). SAE projects started out as strictly farming operation projects, and students were encouraged to develop home projects that were production based. Because of urbanization SAE projects have changed dramatically because it is harder for students to have their project at home, and a lot of the new incoming students come from no agriculture background. According to Dryer and Osborne SAE participation is greatest in rural areas and teachers in these areas place more emphasis on having a SAE project that urban teachers (Dryer & Osborne 1995, p. 11). An entrepreneur SAE based on livestock and/or crop production are the more traditional type of SAE projects. In this SAE students have opportunities to raise livestock for county fairs, have a livestock breeding program, and grow crops. Because of urbanization less and less students are able to participate in these traditional projects.

Urban Agriculture

Because more students live in urban environment students and teachers have to come up with SAE projects that can take place in an urban setting. These types of projects are called urban agriculture. According to Resource Centers on Urban Agriculture & Food Security (RUAF) urban agriculture can be defined as the growing of plants and the raising of animals with in and around cities (Green Villages). Urban agriculture can take place inside city limits, or on the outskirts of the city limits. Some examples of urban agriculture projects include growing different grains and crops on plots of land, and raising poultry, rabbits, guinea pigs, and fish if they are allowed within the city.
Small Animal SAE

According to the 2013 proficiency award area descriptions, a small animal production and care project is where the student owns the enterprise, or works for a business that includes the best management practices available to efficiently produce and market small pet animals such as rabbits, cats, dogs, mice, hedgehogs, guinea pigs, lizards, small birds, and programs that typically provide a service in caring for the well-being of pets, such as working at a pet shop, as a groomer, as a dog trainer, providing pet sitting services, working at a kennel, or preparing guide and assistance animals. (Proficiency award area Descriptions, 2013 p. 7). A small animal project offers the opportunity for a student to have a SAE project even if they do not live in a rural area or have a lot of money. They can vary from just raising a single small animal to having a large breeding project to working somewhere else with animals.

Rabbits

Having a rabbit project as a small animal SAE project offers many different opportunities. Starting a rabbit project has a much lower start up investment compared to larger animal projects, and do not require as much space. Rabbits do not need vaccines like most other livestock, they make little noise, and there are a variety of types and sizes to choose from (Gendron, 200, p. 10). A student who lives in an urban area has the opportunity to have a project at home because most city regulations consider rabbits to be a domestic animal. A rabbit project can range from raising just one rabbit and possibly showing it at the county fair, to a large scale breeding project for meat, wool, or purebred show rabbits. Having a larger scale breeding project offers the opportunity to create a possible business of breeding and selling rabbits to 4-H and FFA members, selling rabbits as pets to other people, possibly selling to pet stores, and selling their meat and fiber. There is also a market for rabbit manure for home gardens.
Barriers

The biggest barrier to a successful SAE rabbit project is the advisors lack of knowledge. Most FFA advisors focus on the more traditional SAE projects and the teacher’s experience playes a role in the student’s participation (Dryer & Osborne 1995, p. 3). Some other barriers to having a successful rabbit SAE project are lack of facilities. Students who wish to have a large scale breeding program will need to have large well ventilated facilities to house a rabbitry. Depending on the county having a large scale breeding project may not be legal within city limits, and may need to be moved to a county location if it gets too big. Another barrier to a successful project is poor record keeping. Pedigrees on pure bred rabbits and offspring need to be kept up to date as well as breeding records and record books. This takes quite a bit of time and is really hard to get caught up on if not kept up to date.

With more and more students entering into agriculture education classes who do not come from an agriculture background and who live in urban areas, other SAE projects need to be considered. Having a strong rabbit project within the FFA chapter will give students who are unable to participate in the traditional SAE projects the opportunity to get involved and have the hands on learning. With having a strong rabbit project and getting more students involved will increase participation in the FFA and agriculture education program.
Chapter Three

Methods

The purpose of this project is to develop a manual to promote rabbit projects as a part of the supervised agriculture experience program in high schools. This manual was developed in an electronic format for ease in editing and distributing to agriculture educators. The expected outcome of this manual is to increase the amount of successful rabbit projects. This chapter is focused on all of the considerations in developing the manual for the rabbit projects, including the readability of the manual, illustrations, forms that are included, and sources of information.

Readability

The manual was written at a high school level, so teachers can use it as a source of information to help advise their student’s projects as well as give it to students who are interested in starting a rabbit project or who have just starting a rabbit project. The manual was scored using a readability index score calculator to make sure it was written so high school students will understand. This manual will give students who may be unable to participate in traditional livestock projects because of living in an urban area another option for a SAE project. This manual will also help students expand current projects and be successful with them.

Illustrations

The photographs used in the manual are mostly personal photos from my small animal proficiency applications and from years of raising and showing rabbits, from kids I have helped
over the years and online photos from the American Rabbit Breeders Association (ARBA) website and other rabbit related websites. The personal photographs and photographs from the ARBA were chosen to be used because there is not a lot of up to date rabbit project information and personal and ARBA photographs are the most up to date and showed the latest techniques and/or equipment. Having examples of the latest techniques and equipment is important because the ways of raising rabbits and the equipment used is always changing and improving. Another reason for using personal photographs and ARBA photographs is because the standards of the different breeds are revised every four years and new breeds are always being added. Figure 1 is an example of a personal photograph that shows a new product, Vetericyn, which is now being used to treat eye infections in rabbits. Figure two is an example of a student doing rabbit showmanship and being judged, this gives the students an example of what to expect when they get to their first show.

Figure 1. Student treating an eye infection with Vetericyn.
Figure 2. 4-H member being judged on their showmanship routine.

**Forms and Resources**

The ARBA showmanship judging form is included to give the students a guide to learn showmanship from. This form is really easy to follow and outlines the various steps and parts of the rabbit that should be checked. This form also shows the student different vocabulary that the judge could quiz them on after they are done with their routine. This form also shows the student what the judge will be judging them on. With the showmanship sheet I also included a list of possible showmanship questions that are popular questions judges ask. This shows the students what information they should know about their own rabbit before going into showmanship as well as what industry knowledge they should know. All these questions
came off the showmanship sheet or out of the Standards of Perfection book this is created by the ARBA. Figure 3 is an example of the ARBA showmanship sheet that is included in the manual. This sheet is included because it is the standards for judging rabbit showmanship, and to become a better showman it is very important to know the standards. Figure 4 is another example of a learning tool that will be included in the manual. The parts of the rabbit are very important to know for showmanship as well as selection.

![Figure 3 Copy of the ARBA Rabbit Showmanship sheet. This sheet lists the showmanship steps as well as the points for each step. (ARBA.net)](image-url)
In this manual I included a page that lists all the equipment and supplies needed to start a rabbit project with estimated prices. This sheet is something I have used when talking to students about starting a rabbit project, and gives them an idea of what goes into a rabbit project. This form is also a good thing for students to take home to their parents to show them what goes into a rabbit project. The prices estimates of the equipment came from KW Cages and Pets Mart. I used these two companies because a student who is going to start a larger scale project like a breeding or meat project will most likely order in bulk from a company like KW Cages, and a student who is just going to have one rabbit will most likely get their equipment from a local pet store.
Sources of info

To create this manual a lot of research had to be done. A lot of the information came from articles, magazines and books published by the American Rabbit Breeders Association (ARBA) and numerous other rabbit related print and online articles. Information from the ARBA was used because they always have the latest information on the rabbit industry and sanction most rabbit shows. They also revise the breed standards every five years. Figure 5 and 6 show two different publications produced by the ARBA that are used in this manual. The different topics discussed in the manual give an overview of a basic rabbit project such as selection, feeding, and health. It also briefly shows different kinds of rabbit projects, such as breeding, meat rabbits and fiber projects. This information was included to help students who only have a small scale project as well as a student with a larger scale project. This manual also shows them different options with rabbit project.

Figure 5 Raising Better Rabbits & Cavies is an ARBA publication that is revised every few years and give the most up to date information on rabbits. (ARBA.net)
Figure 6 The ARBA’s Standards of Perfection is published every five years. This book gives the most up to date information on ARBA recognized breeds and their standards. (ARBA.net)

Summary

The purpose of this manual is to promote rabbit projects as part of the supervised agriculture experience program in high schools and to give students who are unable to participate in traditional livestock projects the opportunity to have an animal project. This manual gives agriculture instructors an up to date, easy to access reference to help advise their students.
INTRODUCTION

FFA makes a positive difference in the lives of students by developing their potential for premier leadership, personal growth and career success through agriculture education. (National FFA Organization 2007, cover page). The FFA and agriculture education use three circles, which are classroom and laboratory instruction, FFA, and supervised agriculture experience (SAE) to develop their student’s potential, and prepare them for successful careers. Because of lifestyles changing and more people moving to a more urban environment student SAE projects are changing. Small animal projects allow students who have an interest in animals but who live in an urban area and do not have facilities to keep larger animals the opportunity to participate.

STARTING A RABBIT PROJECT

Project options

Rabbits have many different purposes, they can be a family pet, show rabbit, a lab animal, or raised for their meat or wool. Some of the different projects that students can participate in are market rabbits, fiber, and pure bred show rabbits. When choosing a breed for your project some other considerations are:

- What size rabbit, small breeds are usually about 2-6 lbs, medium breeds are 6-9 lbs, large breeds are 9-11 lbs, and giant breeds are 11 lbs and heavier.
- Cost is also another thing to consider, the bigger the rabbit the more it is going to cost to feed and house. Rabbits should be fed 4oz per 4lbs of weight and the cage size should be .75 square feet per pound of body weight

Market rabbit project

In this type of project rabbits are bred and the offspring are raised and marketed for meat as a meat pen. A meat pen is made up of three rabbits of the same breed and variety, no older than 60 days and no heavier than 5 pounds. These rabbits can be cross bred or purebred rabbits. These rabbits tend to be the medium to heavy weight breeds. The breeds usually used for a market rabbit project are Californian, New Zealand, Palominos, and Satin.

Fiber Project

Fiber rabbits are raised for their wool, they are typically Angora breeds. The wool is sheared or plucked 3 to 4 times a year, and can be knitted into warm blankets and garments. These rabbits need a lot more maintenance; they require a climate controlled environment, regular grooming, and a very clean cage.

Pure bred show rabbits

There are over 46 breeds of rabbits recognized by the American Rabbit Breeders Association. Each breed is bred for a different
proposes and all have different standards that they are judged on that are set by the ARBA.

**SELECTION**

**Which breed?**

There are over 46 different breeds of rabbits recognized by the ARBA. They range from small breeds that weigh about 2.5 pounds to giant breeds that could weigh up to 25 pounds. When choosing which breed is best for you, you have to decide what you are raising the rabbit for, meat, wool, show, or pet. Another thing to consider is the amount of space available, larger rabbits require more space. The cost, the larger the rabbit the more it will need to eat. Rabbits come in five different body types, they are compact, commercial, full arch, semi arch, and cylindrical.
Finding a Rabbit

First step to getting started is to find a reputable breeder. The Breeder list on the ARBA website is a very good reference. Another good way to meet breeders is to attend ARBA sanctioned shows. At these shows the rabbits entered are broken into different breed and variety classes and judged on their breed characteristics. This is a great place to see many different breeds that the ARBA recognizes, and to talk to breeders.

Selection:

Selecting a show rabbit, breeding rabbit or a pet rabbit is very different. One thing that they all have in common is looking for health issues. You never want to bring a sick rabbit into your rabbit area and chance contaminating the facilities or getting other rabbits sick. If there is any question whether a rabbit is sick it should be quarantined until it is all better before introducing it into the rabbit area. Here are some health things to look for when selecting a rabbit:

- The rabbit should be active and bright-eyed
- Coat should be in good condition
- Eyes and nose should be free of any discharge
- Teeth should be straight and the top should be over the bottom
- Body should be in good condition
- Ears should be clean
- Needs to be checked for vent disease
- Must be eating and drinking well
- Legs must be straight
- Tail must be straight

Snuffles is a common an upper respiratory infection in rabbits. Symptoms include runny nose and watery eyes. (numblesminirsabbitry.weebly.com)

When selecting a show rabbit you must know the breed’s standards. When you know the breeds standards you look for the following:

- Correct color (fur, nails)
- Correct markings
- Correct body type
- Correct length of ears
- Anything else the standard requires

When selecting a breeding rabbit you want to look at all the things for when selecting a pet and show bunny. A breeder needs to have:

- Good breed characteristics to pass on to the offspring
- Good pedigree (check the genetics on a breeder so you know about what colors the rabbit will produce, what size and what quality)
- Does need to have good bone structure to be able to carry and deliver kits.
**Equipment**

**Equipment needed**

![Image of rabbit cage](image)

- Sitting board (So the rabbit has someplace to get off the wire)
- Feed
- Hay
- Grooming supplies (Toenail trimmers, brushes)
- Carrier

![Image of KW Cages catalog](image)

The KW Cages company is a great place to order all rabbit equipment. (kwcages.com)

The equipment that should be on hand before purchasing a rabbit is:

- Cage (Should be big enough for the rabbit to eat drink and lay down)
- Feeder (Ceramic bowls work the best)
- Water bottle

**Optional Equipment**

- Rags (very handy for cleaning up messes and holding rabbits)
- Treats
- Grooming table (Very handy for shows)
- Grooming supplies
- Shavings (for under cages to absorb rabbit waste)
- Tack box (to store supplies in)
- Binder (too keep pedigrees in)
- Toys
- Rugs
- Tattoo kit

![Image of rabbit carrier](image)

A proper carrier is a necessity to safely transport rabbits to and from shows. (hoppinherdofhares.com)
**Equipment need for Breeding**

- Nest box (just slightly larger than doe)
- Newspaper or straw (nest material)
- Blank pedigrees
- More cages

**FEEDING**

There are many brands of rabbit feed on the market and everyone who raises rabbits has their own favorite brand and method of feeding. A general rule for feeding rabbits they should be fed about 4 oz of a complete rabbit feed per 4 pounds of body weight.

The rabbit feed should be kept in a sealed container to prevent rodents and other animals from getting in to it. Keeping it in a sealed container will also prevent it from getting wet and molding.

**CARE**

**Heat**

Rabbits are very sensitive to the heat. They can get heat stroke in 70 degree weather. On top of having clean fresh water available to the rabbit to keep a rabbit cool on hot days frozen water bottles should be placed in the rabbit's cage. The rabbit's cage should never be kept in direct sunlight or in a building/structure that gets hotter than the outside.

**Symptoms**

Symptoms of heat stress and that can lead to heat stroke are labored breathing, flaring of the nostrils and distress.

**Treatment**
Cooling down a rabbit that has heat stroke or who is over heated needs to be done gradually. Getting the paws and ears wet will help to cool them down and getting the rabbit into a cool area like an air conditioned room. A trick that is useful when cooling down a rabbit is to put rabbit into an air conditioned car on the floor board with the ac blowing on it. This slowly brings the body temperature down.

**Worming**

Rabbits should be wormed every couple months. The easiest method of worming is using Piperazine wormer that can be purchased through a vet or KW Cages. This wormer is mixed in the rabbit’s water. Rabbit wormer also comes in a paste form and injectable. Another method is using a horse wormer.

**Grooming**

The amount of grooming a rabbit needs is going to depend on the breed. The angora rabbits require a lot more grooming than the shorter hair breeds. The rabbit’s nails also grow at different rates. The nails should be checked at least once a month and trimmed when necessary. Rabbit’s toenails should also be trimmed before shows.

**Sanitation**

Sanitation is very important for maintaining healthy rabbits. Cages should be cleaned out as often as necessary and rabbits should never be sitting on their own waste. Cages and trays can be sanitized with a bleach solution or vinegar solution to kill pathogens.

**SHOWING**

**Showmanship**

Showmanship is an important skill that can be used to teach students about their animal and the judging process. Showmanship is where students are judged on their ability to handle their rabbit and their rabbit knowledge. Rabbits that are handled a lot tend to be easier to do showmanship with.

**Rabbit shows**

Rabbit shows are where rabbits are judged on their breed characteristics. Rabbits are divided into classes based on breed, variety, sex and age.
Rabbit Showmanship

General Note to judge: Judge the contestant's actions and knowledge. Do not judge the behavior or condition of the rabbit.

<table>
<thead>
<tr>
<th>Step</th>
<th>Actions</th>
<th>Terms</th>
<th>pts</th>
<th>pts</th>
</tr>
</thead>
<tbody>
<tr>
<td>Carry</td>
<td>Proper support; Maintain control</td>
<td></td>
<td>5</td>
<td></td>
</tr>
<tr>
<td>Pose</td>
<td>Correct pose for breed</td>
<td>Bread, Compact, Cylindrical, Full Arch; Mandolin, Semi-Arch, Commercial</td>
<td>2</td>
<td>5</td>
</tr>
<tr>
<td>Ears</td>
<td>Check both ears; Head tattoo</td>
<td>Mite, Carrier, Carriage, Thickness, Color; Tom or Missing Portions, Fur Covering</td>
<td>2</td>
<td>5</td>
</tr>
<tr>
<td>Turn over</td>
<td>Smooth motion; Proper control</td>
<td></td>
<td>5</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Rest weight on table</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Eyes</td>
<td>Properly open eyes; Not forcing open</td>
<td>Proper Color, Blindness, Wall eye, Moon Eye; Weak Eye or Signs of Conjunctivitis</td>
<td>2</td>
<td>5</td>
</tr>
<tr>
<td>Nose</td>
<td>Proper hand position; Show both nostrils</td>
<td>Snuffles, Nasal Discharge; Foreign Spots or Colors</td>
<td>2</td>
<td>5</td>
</tr>
<tr>
<td>Teeth</td>
<td>Proper hand position; Show upper and lower incisors</td>
<td>Malocclusion, Buck teeth, Wolf Teeth; Pag Teeth, Broken Teeth</td>
<td>2</td>
<td>5</td>
</tr>
<tr>
<td>Front Feet/Legs</td>
<td>Check straightness of legs; Check toenails, pad &amp; dewclaw; Proper thumb position</td>
<td>Broken, Extra &amp; Missing Toes; Mismatched White, Missing Toenails; Bone Density, Dewclaw, Pad</td>
<td>2</td>
<td>5</td>
</tr>
<tr>
<td>Belly</td>
<td>Check under jaw &amp; chest; Check abdomen &amp; sides; Smooth and complete coverage</td>
<td>Abscesses, Tumor, Abnormalities; Pigeon Breast, Blemishes, Mastitis</td>
<td>2</td>
<td>5</td>
</tr>
<tr>
<td>Rear Feet/Legs</td>
<td>Check straightness of legs; Check toenails and hooks; Proper thumb position</td>
<td>Broken &amp; Missing Toes; Mismatched White, Missing Toenails; Bone Density, Straightness, Sore Hocks</td>
<td>2</td>
<td>5</td>
</tr>
<tr>
<td>Sex</td>
<td>Proper position of rabbit and hand; Expose vent; penis &amp; testicles</td>
<td>Buck/Doe, Vent Disease, Hutch Burn; Split Penis, Descended Testicles in Int'1 Sr</td>
<td>2</td>
<td>5</td>
</tr>
<tr>
<td>Tail</td>
<td>Extend tail; Move side to side; Examine underside</td>
<td>Wry, Dead, Bobbed, Broken Color, Straightness</td>
<td>2</td>
<td>5</td>
</tr>
<tr>
<td>Fur</td>
<td>Return to pose; Smooth motion; Proper control; Stroke coat from tail to head to show fur type</td>
<td>Density, Texture, Sheen, Lustre; Rollback, Flyback, Flex, Standing, Wool Undercoat; Ring Color, Surface Color, Molt</td>
<td>2</td>
<td>5</td>
</tr>
<tr>
<td>Judging Comments</td>
<td>Final pose; Head, Ears, Shoulder; Rump, Breast specific (markings/color)</td>
<td>Excellent, Good, Fair, Poor, Distance Condition, Finish; Did not use word &quot;Nice&quot;!</td>
<td>10</td>
<td>15</td>
</tr>
<tr>
<td>Overall Presentation</td>
<td>Show coat; Apron; Long sleeves; Smile, Hair neat; No rings, No dangling jewelry, No gum</td>
<td>Humane treatment; controls animal at all times; Good eye contact, Follows directions; Thanks judge</td>
<td>5</td>
<td>10</td>
</tr>
<tr>
<td>Judge Knowledge</td>
<td>Answers to questions</td>
<td>Total Score</td>
<td>10</td>
<td>10</td>
</tr>
</tbody>
</table>

Comments:
Rabbit Showmanship Questions

How many teeth does a rabbit have?

Good ventilation is important for disease control. True or False?

Name a cause of Sore Hocks and how to treat it.

Name three meat breeds.

Where are rabbits believed to have originally come from?

What is a pedigree? What information is on it?

What is ear canker? How is it treated?

What do "BOB" and "BOS" stand for?

What is it called when the rabbit's teeth are not properly aligned?

Name three parts of a rabbit besides eye, ear, nose, mouth, foot or tail.

Name two ways to control disease in your rabbitry.

What is the gestation period for rabbits?
What is any defect or fault that detracts from appearance?

What does ARBA stand for?

When do a baby rabbit’s eyes open?

What does “lactate” mean?

What book lists pictures, descriptions and standards for all the breeds?

What does the term “Density” refer to?

Where would a “Butterfly” be located?

This disease of often caused by Pasteurella or parasitic infections and causes the head to twist to the side.

What is the age for intermediate rabbits?

Name a Commercial breed.

Name an infection of the does mammary glands often caused by Staph or Strep.

What is a bacterial infection spread by mating.
How do you treat Vent Disease?

How do you treat Weepy Eye?

Give an example of a General Disqualification.

How many pairs of chromosomes do domestic rabbits have?

Imperfection not serious enough to disqualify are called.

Swelling caused by infection under the skin.

Eye with a milky film over the surface.

How does a rabbit acquire B Vitamins?

What do BOV and BOSV stand for?
Chapter 5

Summary, Conclusions, and Recommendations

Summary

This rabbit project manual was developed to be used as a tool for agricultural teachers to promote small animal projects within their chapter. The California population is becoming more urbanized. Because of this urbanization there is a need for more options of supervised agricultural experience (SAE) projects for these students who are unable to participate in the traditional livestock projects. This senior project provides agriculture programs with an up-to-date rabbit project manual that can be used to promote rabbit projects, to help students starting rabbit projects and in the classroom.

Conclusions

The following are conclusions based on the development of this manual.

1. This senior project provides agriculture educators an up-to-date rabbit project manual that can be used to promote SEA projects, used for students starting a rabbit project, as well as in the classroom.

2. The California population is becoming more urbanized. Because of this urbanization there is a need for more options of supervised agricultural experience projects for these students who are unable to participate in the traditional livestock projects.

3. This manual was published in an electronic form so it can be easily accessed by agricultural teachers and can be used in the classroom.

4. Promoting small animal projects to students in urban areas could increase participation and interests in SAE projects.
5. This manual provides an avenue for every student to have a project.

**Recommendations**

The following are recommendations based on the development of this manual.

1. This manual was written for high school students who are starting a rabbit SAE project and for agricultural teachers who are encouraging rabbit projects.

2. This manual is not complete. It provides an overview of its topics; depending on which direction the rabbit project will go there is a lot more information that needs to be researched.

3. A future project could be to do a manual on a certain topic in more depth such as nutrition and showmanship.
Work Cited


Appendix A

Rabbit Project Manual
**INTRODUCTION**

FFA makes a positive difference in the lives of students by developing their potential for premier leadership, personal growth and career success through agriculture education. (National FFA Organization 2007, cover page). The FFA and agriculture education use three circles, which are classroom and laboratory instruction, FFA, and supervised agriculture experience (SAE) to develop their student’s potential, and prepare them for successful careers. Because of lifestyles changing and more people moving to a more urban environment student SAE projects are changing. Small animal projects allow students who have an interest in animals but who live in an urban area and do not have facilities to keep larger animals the opportunity to participate.

**STARTING A RABBIT PROJECT**

**Project options**

Rabbits have many different purposes, they can be a family pet, show rabbit, a lab animal, or raised for their meat or wool. Some of the different projects that students can participate in are market rabbits, fiber, and pure bred show rabbits. When choosing a breed for your project some other considerations are:

- What size rabbit, small breeds are usually about 2-6 lbs, medium breeds are 6-9 lbs, large breeds are 9-11 lbs, and giant breeds are 11 lbs and heavier.

- Cost is also another thing to consider, the bigger the rabbit the more it is going to cost to feed and house. Rabbits should be fed 4oz per 4lbs of weight and the cage size should be .75 square feet per pound of body weight.

**Market rabbit project**

In this type of project rabbits are bred and the offspring are raised and marketed for meat as a meat pen. A meat pen is made up of three rabbits of the same breed and variety, no older than 69 days and no heavier than 5 pounds. These rabbits can be cross bred or purebred rabbits. These rabbits tend to be the medium to heavy weight breeds. The breeds usually used for a market rabbit project are Californian, New Zealand, Palominos, and Satin.

**Fiber Project**

Fiber rabbits are raised for their wool, they are typically Angora breeds. The wool is sheared or plucked 3 to 4 times a year, and can be knitted into warm blankets and garments. These rabbits need a lot more maintenance; they require a climate controlled environment, regular grooming, and a very clean cage.

**Pure bred show rabbits**

There are over 46 breeds of rabbits recognized by the American Rabbit Breeders Association. Each breed is bred for a different
proposes and all have different standards that they are judged on that are set by the ARBA.

**SELECTION**

**Which breed?**

There are over 46 different breeds of rabbits recognized by the ARBA. They range from small breeds that weigh about 2.5 pounds to giant breeds that could weigh up to 25 pounds. When choosing which breed is best for you, you have to decide what you are raising the rabbit for, meat, wool, show, or pet. Another thing to consider is the amount of space available, larger rabbits require more space. The cost, the larger the rabbit the more it will need to eat. Rabbits come in five different body types, they are compact, commercial, full arch, semi arch, and cylindrical.

*Harlequin* (arba.net)

*The Tan breed is an example of a full arch body type* (arba.net)

*The Holland Lop is an example of a compact type rabbit* (drchba.ca)

*English Lops are an example of a semi arch type rabbit* (arba.net)

*The Himalayan is the only breed that has a cylindrical body type* (raising-rabbits.com)
Finding a Rabbit

First step to getting started is to find a reputable breeder. The Breeder list on the ARBA website is a very good reference. Another good way to meet breeders is to attend ARBA sanctioned shows. At these shows the rabbits entered are broken into different breed and variety classes and judged on their breed characteristics. This is a great place to see many different breeds that the ARBA recognizes, and to talk to breeders.

Selection:

Selecting a show rabbit, breeding rabbit or a pet rabbit is very different. One thing that they all have in common is looking for health issues. You never want to bring a sick rabbit into your rabbit area and chance contaminating the facilities or getting other rabbits sick. If there is any question whether a rabbit is sick it should be quarantined until it is all better before introducing it into the rabbit area. Here are some health things to look for when selecting a rabbit:

- The rabbit should be active and bright-eyed
- Coat should be in good condition
- Eyes and nose should be free of any discharge
- Teeth should be straight and the top should be over the bottom
- Body should be in good condition
- Ears should be clean
- Needs to be checked for vent disease
- Must be eating and drinking well
- Legs must be straight
- Tail must be straight

Snuffles is a common an upper respiratory infection in rabbits. Symptoms include runny nose and watery eyes. [numblesminisrabbity.weebly.com]

When selecting a show rabbit you must know the breed’s standards. When you know the breeds standards you look for the following:

- Correct color (fur, nails)
- Correct markings
- Correct body type
- Correct length of ears
- Anything else the standard requires

When selecting a breeding rabbit you want to look at all the things for when selecting a pet and show bunny. A breeder needs to have:

- Good breed characteristics to pass on to the offspring
- Good pedigree (check the genetics on a breeder so you know about what colors the rabbit will produce, what size and what quality)
- Does need to have good bone structure to be able to carry and deliver kits.
Three generation rabbit pedigree
(A2rabbits.com)

**EQUIPMENT**

**Equipment needed**

- Sitting board (So the rabbit has someplace to get off the wire)
- Feed
- Hay
- Grooming supplies (Toenail trimmers, brushes)
- Carrier

A proper carrier is a necessity to safely transport rabbits to and from shows. (hoppinherdofhares.com)

**Optional Equipment**

- Rags (very handy for cleaning up messes and holding rabbits)
- Treats
- Grooming table (Very handy for shows)
- Grooming supplies
- Shavings (for under cages to absorb rabbit waste)
- Tack box (to store supplies in)
- Binder (too keep pedigrees in)
- Toys
- Rugs
- Tattoo kit
The rabbit feed should be kept in a sealed container to prevent rodents and other animals from getting in to it. Keeping it in a sealed container will also prevent it from getting wet and molding.

**CARE**

**Heat**

Rabbits are very sensitive to the heat. They can get heat stroke in 70 degree weather. On top of having clean fresh water available to the rabbit to keep a rabbit cool on hot days frozen water bottles should be placed in the rabbit’s cage. The rabbit’s cage should never be kept in direct sunlight or in a building/structure that gets hotter than the outside.

**Symptoms**

Symptoms of heat stress and that can lead to heat stroke are labored breathing, flaring of the nostrils and distress.

**Treatment**

---

**Equipment need for Breeding**

- Nest box (just slightly larger than doe)
- Newspaper or straw (nest material)
- Blank pedigrees
- More cages

---

**FEEDING**

There are many brands of rabbit feed on the market and everyone who raises rabbits has their own favorite brand and method of feeding. A general rule for feeding rabbits they should be fed about 4 oz. of a complete rabbit feed per 4 pounds of body weight.
Cooling down a rabbit that has heat stroke or who is over heated needs to be done gradually. Getting the paws and ears wet will help to cool them down and getting the rabbit into a cool area like an air-conditioned room. A trick that is useful when cooling down a rabbit is to put rabbit into an air-conditioned car on the floor board with the ac blowing on it. This slowly brings the body temperature down.

**Worming**

Rabbits should be wormed every couple months. The easiest method of worming is using Piperazine wormer that can be purchased through a vet or KW Cages. This wormer is mixed in the rabbit’s water. Rabbit wormer also comes in a paste form and injectable. Another method is using a horse wormer.

**Grooming**

The amount of grooming a rabbit needs is going to depend on the breed. The angora rabbits require a lot more grooming than the shorter hair breeds. The rabbit’s nails also grow at different rates. The nails should be checked at least once a month and trimmed when necessary. Rabbit’s toenails should also be trimmed before shows.

**Sanitation**

Sanitation is very important for maintaining healthy rabbits. Cages should be cleaned out as often as necessary and rabbits should never be sitting on their own waste. Cages and trays can be sanitized with a bleach solution or vinegar solution to kill pathogens.

**SHOWING**

**Showmanship**

Showmanship is an important skill that can be used to teach students about their animal and the judging process. Showmanship is where students are judged on their ability to handle their rabbit and their rabbit knowledge. Rabbits that are handled a lot tend to be easier to do showmanship with.

**Rabbit shows**

Rabbit shows are where rabbits are judged on their breed characteristics. Rabbits are divided into classes based on breed, variety, sex and age.
General Note to judge: Judge the contestant's actions and knowledge. Do not judge the behavior or condition of the rabbit.

<table>
<thead>
<tr>
<th>Step</th>
<th>Actions</th>
<th>Terms</th>
<th>pts</th>
<th>pts</th>
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<tbody>
<tr>
<td>Carry</td>
<td>Proper support</td>
<td>Bread, Compact, Cylindrical, Full Arch</td>
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<td></td>
<td>Maintain control</td>
<td>Mandoloth, Semi-arch, Commercial</td>
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<td>Pose</td>
<td>Correct pose for breed</td>
<td>Mites, Canker, Carriage, Thickness, Color</td>
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<td>Introduction-greeting/name, Step back</td>
<td>Tomb or Missing Portions, Fur Covering</td>
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<td>Ears</td>
<td>Check both ears</td>
<td>Proper Color, Blindness, Wall eye, Moon</td>
<td>3</td>
<td></td>
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<tr>
<td></td>
<td>Read tattoo</td>
<td>Eye, Weepeye or Signs of Conjunctivitis</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Turn over</td>
<td>Smooth motion. Proper control</td>
<td>Proper Color, Blindness, Wall eye, Moon</td>
<td>5</td>
<td>5</td>
</tr>
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<td></td>
<td>Ract weight on table</td>
<td>Eye, Weepeye or Signs of Conjunctivitis</td>
<td></td>
<td></td>
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<tr>
<td>Eyes</td>
<td>Properly open eyes</td>
<td>Snuffles, Nasal Discharge</td>
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<td>5</td>
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<td></td>
<td>Not forcing open</td>
<td>Foreign Spots or Colors</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nose</td>
<td>Proper hand position</td>
<td>Proper Color, Blindness, Wall eye, Moon</td>
<td>3</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td>Position</td>
<td>Eye, Weepeye or Signs of Conjunctivitis</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Teeth</td>
<td>Proper hand position</td>
<td>Mastocclusion, Buck teeth, Wolf Teeth</td>
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<td>5</td>
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<td>Snow upper and lower incisors</td>
<td>Peg Teeth, Broken Teeth</td>
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<td>Front Feet/Legs</td>
<td>Check straightness of legs</td>
<td>Broken, Extra &amp; Missing Toes</td>
<td>3</td>
<td>5</td>
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<tr>
<td></td>
<td>Check toenails, pad &amp; dewclaw</td>
<td>Mismatched, White, Missing Toenails</td>
<td></td>
<td></td>
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<tr>
<td></td>
<td>Proper thumb position</td>
<td>Bone Density, Dewclaw, Pads</td>
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<tr>
<td>Belly</td>
<td>Check under jaw &amp; chest</td>
<td>Abscess, Tumor, Abnormalities</td>
<td>2</td>
<td>5</td>
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<tr>
<td></td>
<td>Check abdomen &amp; sides</td>
<td>Pigeon Breast, Eczemases, Mastitis</td>
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<td></td>
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<tr>
<td></td>
<td>Smooth and complete coverage</td>
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<td></td>
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<tr>
<td>Rear Feet/Legs</td>
<td>Check straightness of legs</td>
<td>Broken &amp; Missing Toes</td>
<td>2</td>
<td>5</td>
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<td>Check toenails and hocks</td>
<td>Mismatched, White, Missing Toenails</td>
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<tr>
<td></td>
<td>Proper thumb position</td>
<td>Bone Density, Straightness, Sore Hocks</td>
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<tr>
<td>Sex</td>
<td>Proper position of rabbit and hand</td>
<td>Buck/Doe, Vent Disease, Hutch Burn</td>
<td>3</td>
<td>5</td>
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<tr>
<td></td>
<td>Expose vent, penis &amp; testicles</td>
<td>Splint Pains, Desonared Testicles in Inf Sr</td>
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<tr>
<td>Tail</td>
<td>Extend tail. Move side to side</td>
<td>Wyi, Dead, Robbed, Broken</td>
<td>3</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td>Examine underside</td>
<td>Color, Straightness</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fur</td>
<td>Return to pose, Smooth motion</td>
<td>Density, Texture, Sheen, Luster</td>
<td>3</td>
<td>5</td>
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<tr>
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<td>Proper control, Stroke coat from</td>
<td>Rollback, Flyback, Flex, Standing, Wool</td>
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<td>Undercolor, Ringing Color, Surfase Color,</td>
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<td></td>
<td></td>
<td>Molt</td>
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<td>Judging</td>
<td>Comments</td>
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<td>Final pose, Head, Ears, Shoulder, Chest,</td>
<td>Excellent, Good, Fair, Poor, Balance</td>
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<td>Midsection, Lon, Hindquarters, Rump, Breed</td>
<td>Condition, Finish</td>
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<tr>
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<td>specific (markings/color)</td>
<td>Did not use word &quot;Nice&quot;</td>
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</tr>
<tr>
<td>Overall</td>
<td>Presentation</td>
<td>Overall score</td>
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<td></td>
</tr>
<tr>
<td></td>
<td>Show coat, Apron, Long sleeves</td>
<td>Humane treatment/controls animal at all</td>
<td>5</td>
<td>10</td>
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<tr>
<td></td>
<td>Smile, Hair neat</td>
<td>times</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>No rings, No dangling jewelry, No gum</td>
<td>Good eye contact, Follows directions</td>
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<td></td>
</tr>
<tr>
<td>Knowledge</td>
<td>Answers to question</td>
<td>Thanks judge</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Judge</td>
<td></td>
<td></td>
<td></td>
<td>10</td>
</tr>
</tbody>
</table>

Total Score: 100
Rabbit Showmanship Questions

How many teeth does a rabbit have?

Good ventilation is important for disease control. True or False?

Name a cause of Sore Hocks and how to treat it.

Name three meat breeds.

Where are rabbits believed to have originally come from?

What is a pedigree? What information is on it?

What is ear canker? How is it treated?

What do "BOB" and "BOS" stand for?

What is it called when the rabbit’s teeth are not properly aligned?

Name three parts of a rabbit besides eye, ear, nose, mouth, foot or tail.

Name two ways to control disease in your rabbitry.

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