



2025 Lake County Fair Rabbit Skillathon Study Guide

Juniors (age 8-10 as of September 1, 2024)
Intermediates (age 11-13 as of September 1, 2024)
Seniors (age 14 and over as of September 1, 2024)

Skill-a-thon tests will be administered on March 17, 2025 between 5:00 and 8:00pm at the Lake County Fairgrounds Main Exhibit Hall located at:
2101 County Rd 452 Eustis, Fl. 32726.

All registered Lake County 4H and FFA members showing in the Lake County Fair are eligible to compete in the Skill-a-thon except for Cloverbuds (ages 5-7) who are not eligible to compete.

Exhibitors have two options:

Option one - Exhibitors can take the test for any of the divisions that they are registered in.

Option two- Exhibitors can take the test for all divisions to compete in the Overall Skill-a-thon.

Awards:

Individual area Skill-a-thon - Banners will be awarded to the top 3 scores in each age division for each animal division - only exhibitors that are showing animals in that division will be eligible to place for the banners.

Rabbit Divisions:

1st Place Junior - Award

2nd Place Junior - Award

3rd Place Junior - Award

1st Place Intermediate - Award

2nd Place Intermediate - Award

3rd Place Intermediate - Award

1st Place Senior - Award

2nd Place Senior - Award

3rd Place Senior - Award

Overall Skill-a-thon - Buckles will be awarded to the top score in each age division.

Overall Skill-a-thon:

Junior: Belt Buckle

Intermediate: Belt Buckle

Senior: Belt Buckle

Skillathon Areas are as follows:

Beef Breeding

Steer

Poultry

Dairy Goat

Breeding and Market Goat

Market Lamb

Rabbit

Swine

*** Each age division will have a record book question as a tiebreaker.****

Non Market Record Book

[https://cdn.saffire.com/files.ashx?t=fg&rid=LakeCoFair&f=2025_Non_Market_Record_Book_FINAL\(3\).pdf](https://cdn.saffire.com/files.ashx?t=fg&rid=LakeCoFair&f=2025_Non_Market_Record_Book_FINAL(3).pdf)

** The following pages are from Florida State Fair Skillathon Book***

INTRODUCTION

This manual has been developed as a study guide for the Florida State Fair Rabbit Skillathon which is part of the Champion Youth Program. The topic for this year's Skillathon is **Products and Marketing**.

The Florida State Fair recognizes that agricultural education instructors, 4-H agents, parents, and leaders provide the traditional and logical instructional link between youth, their livestock projects, and current trends in the animal agriculture industry. **PLEASE NOTE:** This manual is provided as a **study guide** for the skillathon competition and should be used as an additional aid to ongoing educational programs.

Sections are labeled **Junior, Intermediate, & Senior, Intermediate & Senior, or Senior** to help exhibitors and educators identify which materials are required for each age level.

****** Denotes additional information in the study manual for preparing for the Champion of Champions competition.

The knowledge and skills vary by age group and may include:

Juniors (age 8-10 as of September 1, 2024)

Animal By-Products
Breeds by Use and Classes

Intermediates (age 11-13 as of September 1, 2024)

All of the above plus...
Standard of Perfection
Types of Fur
Cookery

Seniors (age 14 and over as of September 1, 2024)

all of the above plus....
Carcass Grading
Skeletal Anatomy

GOOD LUCK

Products and Marketing***

Youth livestock projects focus on the selection, raising, showing, and often selling of animals. By virtue of their participation in livestock projects, youth become part of an industry that provides food and fiber for the world. The steps involved in the movement of animals and animal products from producer to consumer are known as *processing and marketing*. Tremendous changes have occurred in recent years in the ways animal products are harvested and marketed but the fundamentals remain the same. Price is dependent on *supply and demand*. We can impact supply through increased breeding, but demand is more difficult to affect. In order to maintain a stable market for animal products, consumers must have confidence in the ***wholesomeness and quality*** of what they are buying. That means the products must be safe, nutritious, and tasty. Many livestock organizations have implemented promotion programs to increase market share, improve prices and increase export markets.

Marketing may be as simple as receiving a set price per pound or may involve a pricing system known as 'Value Based Marketing'. ***Value based pricing systems*** account for quality and apply deductions or bonuses as products deviate from an accepted *baseline*. This should ultimately improve the quality of products offered to consumers, therefore boosting consumer confidence. Animal products may be marketed at auctions, by direct sales, contracts or electronically with the use of computers and satellite technology. Regardless of the marketing method, the seller is trying to receive the highest *price* while the buyer is trying to receive the greatest *value* (high quality and reasonable price).

Rabbit Products and Marketing***

In the United States rabbit industry rabbits are produced for meat, Angora wool, pets, laboratory use, and show rabbits. According to the USDA 2023 Census of Agriculture (https://www.nass.usda.gov/Publications/AqCensus/2022/Full_Report/Volume_1,_Chapter_1_US/st99_1_032_034.pdf) more than 3,000 US farms market over 430,000 rabbits annually, and nationwide there are approximately an estimated 10 million rabbits. Though many people consider rabbits as pets and raise them as a hobby, rabbits truly can constitute a livestock enterprise. Rabbits are extremely efficient meat producers due to their high reproductive rate (25 - 50 offspring per year) and excellent conversion of feed to muscle (4 pounds feed/ 1 pound of gain for fryers). They produce a carcass with white meat, high protein, and low fat. Rabbits are a significant source of meat worldwide, led by China in which produced 932,000 metric tons of rabbit meat in 2023. Between 2007-2017, world-wide rabbit meat consumption was up 12% and amounted to 6.4 billion dollars (<https://www.newfoodmagazine.com/news/85045/global-rabbit-meat-market-grow/>). Worldwide, rabbit consumption is still growing with a projected compound annual growth rate (CAGR) of 2.5% expected in 2025. In the U.S. where rabbits are considered more of a pet, commercial rabbitries produce about 6 million pounds of rabbit meat each year (2700 metric tons). Since Americans consume 8 to 10 million pounds of rabbit meat annually, we must import rabbit meat in order to meet demands. This would indicate room for expanded production. Global rabbit consumption is projected to continue to increase each year through 2025.

A by-product of meat processing is pelts. Skins may be used for fur garments, slippers, glove linings, toy making and felt. Since colored pelts bring lower prices, white breeds are preferred as meat animals. There are some breeds with particularly fine pelts that are raised specifically for fur and others that produce wool or hair that can be harvested and spun into yarn. With the increase of synthetic fibers and artificial furs, markets for rabbit skins and pelts are diminishing.

One of the most significant contributions that rabbits bring to mankind is their usefulness in laboratory research and diagnostics. Over 200,000 rabbits per year are used in medical schools, laboratories, and hospitals to aid in areas like cardiac surgery, hypertension, virology, infectious diseases, toxins and antitoxins, and immunology. These institutions must adhere to strict government guidelines in the care and use of these animals and they in turn place stringent guidelines on their suppliers.



1. The rabbit was the first animal model of cancer caused by a virus.
2. Rabbits are used to produce antibodies, used for research into infectious diseases and immunology.
3. Rabbits are used as models for cystic fibrosis and cholera.
4. Louis Pasteur used rabbits to develop his rabies vaccine.
5. Rabbits are important in the study of cardiovascular disease, particularly hypertension and arteriosclerosis.
6. Rabbits are key for studies on cancer, glaucoma, ear infections, eye infections, diabetes, and emphysema.
7. Surgical lasers were developed using rabbits.
8. Rabbits are used to research the influence of high cholesterol.
9. Rabbits love liquorice root.
10. Rabbits can use a litter box.

Source: <https://www.understandinganimalresearch.org.uk/what-is-animal-research/a-z-animals/rabbit>

Animal By-Products

Animal by-products are anything of economic value other than the carcass that comes from animals during harvest and processing. They are classified as edible or inedible for humans. There may be some disagreement about what is edible, but we can all agree that there are many uses for what is left after the carcass is placed into the cooler. In developing countries by-products may become jewelry, religious implements, tools, fuel, construction material, fly swatters, or musical instruments. In developed countries, advances in technology have created many products from non-animal sources (synthetics) which compete with animal by-products, thus reducing their value. Still, by-products represent multibillion dollar industries in the United States and other developed countries. An added benefit of changing inedible parts of carcasses into useful products is that the decaying materials don't pile up and cause environmental problems. **Rendering** is the term for reducing or melting down animal tissues by heat and the rendering industry refers to itself as the "original recyclers". The creativity of meat processors in finding uses for by-products has led to the saying "the packer uses everything but the squeal".

Edible by-products

<u>Raw Material</u>	<u>Principal Use</u>
Brains, Kidneys, Heart, Liver, Testicles	Variety Meats
Cheek and head trimmings	Sausage ingredient
Blood	Sausage component
Fats	Shortening (candies, chewing gum)
Intestines	Sausage casings
Bones	Gelatin for confectioneries (marshmallows), ice cream and jellied food products

Inedible by-products

<u>Raw Material</u>	<u>Processed by-product</u>	<u>Principal Use</u>
Hides	Leather	various leather goods
	Glue	paper boxes, sandpaper, plywood, sizing
	Hair	Felts, plaster binder, upholstery, brushes, insulation
Pelts	Wool	Textiles
	Skin	Leather goods
	Lanolin	Ointments
Fats	Inedible tallow	Industrial oils, lubricants, soap, glycerin
		Insecticides, weed killers, rubber, cosmetics, antifreeze, nitroglycerine, plastics, cellophane, floor wax, waterproofing agents, cement, crayons, chalk, matches, putty, linoleum
Bones	Tankage	Livestock and poultry feeds
	Dry bone	Glue, hardening steel, refining sugar, buttons, bone china
	Bone meal	Animal feed, fertilizer, porcelain enamel, water filters
Glands	Pharmaceuticals	Medicines
Lungs		Pet foods
Blood	Blood meal	Livestock and fish feeds
	Blood albumen	Leather preparations, textile sizing
Viscera and meat scraps	Meat meal	Livestock, pet and poultry feeds

Rabbit Breeds by Use and Classification

A descendant of the European wild rabbit, the domestic rabbit is used for many purposes in the United States. In terms of numbers of owners, the pet segment of the industry is the largest (over 6 million rabbits). There are roughly 23,000 members of the American Rabbit Breeders Association and the majority of them raise rabbits as a hobby or to exhibit at shows. In 2022, over 400,000 rabbits were marketed for meat purposes and those producers typically raise hundreds to thousands of rabbits each year. Schools and universities use rabbits for teaching and research purposes. Other uses might include “feeder rabbits” for carnivorous pet reptiles, or for endangered or injured animals like eagles, condors, alligators, and wolves. There are also seed stock producers who provide high quality breeding animals for new producers. With all of the potential uses for rabbits, it is no surprise that there are 52 breeds of rabbits described by the American Rabbit Breeders Association (ARBA) in their Standard of Perfection. They are classified by **color, type, shape, weight, fur, wool and hair**. <https://arba.net/recognized-breeds/>.

Large breeds - 14 to 16 pounds mature weight
 Medium breeds - 9 to 12 pounds mature weight
 Small - 2 to 4 pounds mature weight.

Some examples of rabbit breeds and their uses are:

Californian - is considered a good **commercial** breed due to their good growth characteristics and white (normal) fur. They are often raised for show. (Medium)

Checkered Giant – A popular show breed, the Checkered Giant is one of 11 breeds with **defined markings**. It may also be used as a meat and a fur breed (Medium to Large)

Dutch - is a popular show breed and are most noted for their **distinctive markings**. Their small size also makes them a good lab animal. (Small)

Holland Lop - is one of the breeds recognized by the ARBA as a **pet breed** and are popular at shows. (Small)

English and French Angora - breeds which produce high quality **wool**. Because the wool is harvested by shearing or plucking, the animal does not need to be slaughtered to harvest the product. (Medium)

Florida White – The Florida White was developed for laboratory use, third best **commercial** breed due to their good growth characteristics, also used for show. (Small)

Flemish Giant – Originally a **commercial** breed, this breed is a popular show breed, and as the name implies, is of impressive **size**. (Large)

New Zealand - is considered an outstanding **commercial** breed due excellent growth characteristics and meaty carcass. They are used as a show animal and the white variety is very popular for laboratory use. (Medium)

Rex – their plush, velvety **fur** used by the garment industry makes them a pelt breed, but they are also good **commercial** rabbits and are a popular pet and show breed. (Medium)

Satin – is named for its silky **fur** but is also a good **commercial** breed. (Medium).

Standard of Perfection

Standard of Perfection is the basis of the rabbit judging system. The Standard of Perfection for each breed is broken into sections with the most points being placed on the items of greatest importance for that breed. Standard of Perfection is used to create an image of the ideal animal in a particular breed. Judging rabbits is still done by comparing one rabbit to another but a judge must have a working knowledge of the breed Standard of Perfection while comparing rabbits for placing. By combining comparison judging with a point system, a judge should get the most accurate placing. An example of Standard of Perfection for the Dutch breed follows. For Dutch rabbits, markings are the most important aspect for judging with 50 points placed on this section. Each breed will have Standards of Perfection with detailed explanation of the ideal rabbit as well as faults and disqualifications.

Dutch Standard of Perfection

General Type	<u>27 Points</u>	Markings	<u>48 Points</u>	Fur	<u>10 Points</u>
Body Type	17 Points	Cheeks	12 Points	Color	<u>10 Points</u>
Head	5 Points	Blaze	5 Points		
Ears	2 Points	Neck	3 Points	Condition	<u>5 Points</u>
Eyes	1 Point	Saddle	10 Points		
Feet, Leg and Bone	2 Points	Stops	10 Points	Undercut	8 Points

Standard and Guide for Judging Meat Classes (from 2021-2025 Standard of Perfection)

Single Fryer Class

Single fryers, not over 10 weeks of age, minimum weight of 3 pounds, maximum weight of 5 pounds.

Point Schedule:

Meat type	50
Condition of flesh	40
Fur	10
Total points.....	100

Meat Pens

Pens consist of 3 rabbits of the same breed and variety, not over 10 weeks old, at least 3 pounds but no more than 5 pounds each.

Point Schedule:

Meat type	40
Condition of flesh	30
Uniformity of body and weight	20
Fur	10
Total points.....	100

A video explaining the evaluation of a meat pen is available at:

<https://www.youtube.com/watch?v=6dmYfwatVwo>.

Roaster Class – All animals entered must be under 6 months of age, over 5 1/2 pounds and not more than 9 pounds.

Stewers Class – All animals are at least 6 months and at least 8 pounds.

Types of Fur

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The manufacture of fur garments or trim requires specific characteristics for which standards have been defined. The hair/fur classifications for show are normal, rex, satin, and wool.

Commercial Normal Fur Classes – all normal furred breeds. A coat of fur which “**flies back**” to its smooth normal position when stroked from the hindquarters to the shoulders. All breeds not having commercial normal fur are shown in their respective breed or wool classes.

Colored – All colors except white. White – Usable portion of the pelt to be white.

Point Schedule

Texture..... 40 points

Guard hair offers resistance when stroked toward head, flies back and lies smoothly.

Fine, soft undercoat should be interspersed thickly with heavier/thicker guard hair.

Density..... 30 points

Underfur soft, fine, dense interspersed with guard hairs which extend above and provide a protective surface. Quality should carry down sides to stomach.

Balance and Condition..... 30 points

Combination of texture, density and uniform length with a differential between guard hair and underfur not to exceed 1/8 inch. The coat should be uniform, tight, clean, bright, and free of stain.

TOTAL.....100 points

Breed Fur and Wool Classes

Judged by the fur and wool standard for their respective breeds

White Breed Fur/Wool Class – Any white or variety with a white usable portion of the pelt.

Colored Breed Fur/Wool Class – All colors except white. Color not to be considered.

Fryer Fur – White and colors judged together, must be entered in fryer or meat pen class.

An interesting video that demonstrates how to harvest fiber from an Angora rabbit is available here: <https://www.youtube.com/watch?v=eJokunZfwpo>.

Meat Facts ***

100g Roasted	Calories (g)	Fat (g)	Saturated Fatty Acids (g)	Protein (g)	Iron (mg)
Beef	216	9.9	3.79	29.58	2.9
Chicken	190	7.41	2.04	28.93	1.21
Goat	108	2.58	.79	29	3.3
Lamb	206	9.52	3.4	28.22	2.05
Pork	212	9.66	3.41	29.27	1.1
Rabbit (stewed)	206	8.41	2.51	30.38	2.37

Meat Cookery

Methods of cooking meat include dry heat or moist heat. Dry heat cookery methods improve flavor of meat through crust formation and caramelization but increase chewiness and decrease tenderness because of protein hardening. Moist heat cookery methods increase the tenderness of meat cuts that are comprised of muscles containing large amounts of connective tissue. Cookery under moist conditions for long periods at relatively low temperatures generates steam that then converts the collagen in connective tissue into gelatin. Methods should be selected based on initial tenderness of the cut, desired quality characteristics of the resulting product, available cooking facilities/equipment, and the amount of time available for preparation.

Dry Heat

Dry Heat methods of cooking are suitable for tender cuts of meat or less tender cuts which have been marinated. Use cuts low in collagen and elastin.

Roasting - This method of cooking is recommended for larger cuts of meat. Meat is seasoned and placed in an open roasting pan with a cooking thermometer placed in the center to determine degree of doneness.

Broiling - This method is most suitable for tender, usually thin cuts of meat. Less tender cuts may also be broiled when marinated. Meat is directly exposed to the source of heat from above or from both sides at the same time. It involves high heat and produces a distinct caramelized flavor.

Grilling - This method is actually a method of broiling. Meat can be grilled on a grid or rack over coals, heated ceramic briquettes or an open fire.

Pan-Broiling - This method is faster and more convenient than oven broiling for cooking thinner cuts. It involves conduction of heat by direct contact of the meat with hot metal. Fat drippings are poured off as they accumulate.

Pan-Frying - This method differs from pan-broiling in that a small amount of fat is added first or allowed to accumulate during cooking. Pan-frying is for ground meat, small or thin cuts of meat.

Stir-Frying - This method is similar to pan-frying except that the food is stirred almost continuously. Cooking is done with high heat, using small or thin pieces of meat.

Deep-Fat Frying - This method is cooking meat immersed in fat. This method is only used with very tender meat.

Microwave Cookery - High frequency electrical energy causes molecules inside the product to vibrate creating friction and heat without heating the surrounding air. The rapid speed of microwave cooking makes it ideal for frozen cuts in institutions and restaurants. Consumers complain that microwaved meat is inferior in flavor.

Moist Heat

Moist Heat methods of cooking are suitable for less tender cuts of meat. Moist heat cooking helps to reduce surface drying in those cuts requiring prolonged cooking times. With moist heat cookery, meat may lose some water-soluble nutrients into the cooking liquid. However, if the cooking liquids are consumed, as in stews or soups, nutrients are transferred and not totally lost. Meat should never be boiled because high temperatures toughen protein.

Braising - In some regions of the country the term "fricassee" is used interchangeably with braising. The surface of the meat is seasoned, covered with flour and browned. Afterward the meat is placed in a covered pan with a small amount of liquid and cooked at low temperatures to soften the connective tissue and yield a more tender product.

Stewing – Small pieces of lean meat can be browned on the surface then covered with liquid and gently simmered in a covered pan until tender. Care should be taken not to let the temperature of the liquid exceed 195°F, because boiling toughens meat protein.

Simmering - Involves cooking in water at low temperatures (180°F) like stewing except more water is used and the meat is usually not browned first.

Pressure Cooking – Cooking under pressure produces steam which aids in softening connective tissue. Pieces of meat may be browned then cooked with a small amount of water in a special vented pressure cooker.

Poaching - Cook in a liquid that is not actually bubbling at 165 to 180 degrees. It is usually used to cook delicate foods such as fish and eggs. It takes one third less time than roasting. Poaching helps to keep shrinkage of meat to a minimum.