



2025 Lake County Fair Lamb 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.

Lamb 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.****

Market Record Book

https://cdn.saffire.com/files.ashx?t=fg&rid=LakeCoFair&f=2025_Market_Book_FINAL.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 Sheep 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, parents, 4-H agents 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)

By Products,
Wholesale cuts & Primals

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

all of the above plus...
Retail Cuts
Cookery

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

all of the above plus...
Sheep/Lamb Evaluation
Wool Grades
Quality Assurance
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. 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. The American Lamb Check-off is a promotion program begun in 2002 to increase market share, improve prices and increase export markets. Read about it at: <https://lambboard.com/checkoff>.

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). Read about lamb marketing at: <http://www.sheep101.info/201/lambmarketing.html>

Sheep Products and Marketing***

Products of the sheep industry are those derived from the carcass (lamb, mutton, edible and inedible by-products) and wool. There are currently has about 5.21 million head of sheep and lambs. The majority (70%) of the sheep produced in the United States are raised in range conditions. Texas and Wyoming account for about 25% of the sheep and lambs in the United States. The sheep industry in the eastern U.S. is mostly smaller, farm flock operations.

Rank	State	Head
1	Texas	340,000
2	Wyoming	230,000
3	Utah	225,000
4	California	215,000
5	South Dakota	200,000
6	Colorado	175,000
7	Montana	150,000
8	Idaho	140,000
9	Oregon	105,000
10	Ohio	92,000

Source: <https://worldpopulationreview.com/state-rankings/sheep-production-by-state>

Florida has a very small sheep industry. For information on sheep in Florida visit: <https://www.fdacs.gov/About-Us/Publications/Animal-Industry-Publications> . While the local sheep industry in Florida is small, the state is home to the Florida Cracker Sheep, a very unique breed of sheep that thrives in the hot, humid environment. Visit <http://floridacrackersheep.com/> to learn more about this heritage breed.

The sheep industry can also be divided into commercial and purebred production. Though there are far more commercial sheep than purebreds, it is purebred breeders that set the trends for the industry. Selection priorities have shifted toward larger frame size. There are several barriers to having a profitable sheep business, which include: seasonal demand for lamb does not match breeding and lambing season, low per capita consumption, and low wool prices, use of artificial fibers, predators, high labor requirement, inadequate slaughter and marketing opportunities. The sheep industry in the United States has declined to the point that it is only a specialty industry. Though there are more than 88,000 sheep producers in the United States according to the 2022 USDA census of agriculture, income from sheep and lamb production accounts for only two tenths of 1% of animal agriculture's share of cash receipts. The American Sheep Industry Association represents the interests of all sheep producers and has 45 state associations. <http://www.sheepusa.org>. Though sheep numbers in the U.S. are declining, world-wide they are the second most numerous agricultural animals excluding poultry, numbering approximately 1 billion globally. Learn more about the global sheep inventory at <https://iwto.org/wp-content/uploads/2022/04/IWTO-Market-Information-Sample-Edition-17.pdf>.

The American Lamb Board is an industry-funded research and promotions commodity board that represents all sectors of the American lamb industry. The 13-member Board, appointed by the Secretary of Agriculture, is focused on increasing demand by promoting the freshness, flavor, nutritional benefits, and culinary versatility of American Lamb. The work of the American Lamb Board is overseen by the U.S. Department of Agriculture and the board's programs are supported and implemented by the staff in Denver, Colorado. The American Lamb Board is working to build demand for American Lamb through a variety of marketing programs and activities including consumer events, media outreach, culinary education, foodservice and retail promotions, online advertising, social marketing, and more. <http://www.americanlamb.com/>.

A very small niche market in the USA is dairy sheep production. Only about 200 farms in the United States grow sheep for milk. Worldwide the dairy sheep industry is concentrated in Europe and in Mediterranean countries. Milk from sheep is highly nutritious and is mostly used to produce specialized cheeses. For more information, visit: <http://www.sheep101.info/dairy.html#:~:text=The%20dairy%20sheep%20industry%20is%20still%20in%20its,mostly%20in%20New%20England%20and%20the%20Upper%20Midwest..>

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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 rolled 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 processors in finding uses for by-products leads to the saying "the packer uses everything but the bleat". Read some more about products we get from sheep at: <http://www.sheep101.info/sheepproducts.html>

Edible by-products

Raw Material

Brains, Kidneys, Heart, Liver, Testicles
Spleen, Sweetbreads, Tongue
Cheek and head trimmings
Blood

Principal Use

Variety Meats

Sausage ingredient
Sausage component

Fats
 Intestines
 Esophagus
 Bones

Shortening (candies, chewing gum)
 Sausage casings
 Sausage ingredient
 Gelatin for confectioneries (marshmallows),
 ice cream and jellied food products

Inedible by-products

Raw Material

Processed by-product

Principal Use

Hides

Leather
 Glue
 Hair

various leather goods
 paper boxes, sandpaper, plywood, sizing
 Felts, plaster binder, upholstery, brushes,
 insulation

Pelts

Wool
 Skin
 Lanolin

Textiles
 Leather goods
 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
 Dry bone

Livestock and poultry feeds
 Glue, hardening steel, refining sugar,
 buttons, bone china

Bone meal

Animal feed, fertilizer, porcelain enamel,
 water filters

Feet

Neatsfoot stock
 Neatsfoot oil
 Pharmaceuticals

Fine lubricants
 Leather preparations

Glands

Lungs

Blood

Blood meal
 Blood albumen
 Meat meal

Medicines
 Pet foods

Livestock and fish feeds

Leather preparations, textile sizing

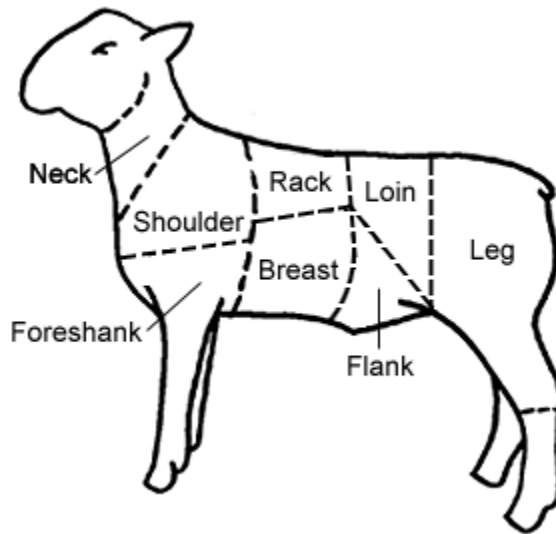
Livestock, pet and poultry feeds

Viscera and
 meat scraps

Wholesale Cuts of Lamb

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Fabrication of carcasses is the cutting of the carcass into wholesale and retail cuts for distribution to various markets. The size of the carcass and the preferences of the customer will determine how it is fabricated. For lamb carcasses, wholesale cuts come from standard cutting methods developed to: *a) Separate fat from lean portions b) Separate tough from tender sections c) Separate thick from thin sections d) Separate valuable from less valuable cuts e) Separate retail cuts by cutting across the grain.*



Primal Cuts

Of the wholesale cuts, those that are lean, tender, thick, and valuable and that contain a large proportion of their muscles running in the same direction are called *primal* cuts. The ***primal lamb cuts are shoulder, rack, loin and leg.***

(Copied with permission from NCBA, "The Guide to Identifying Meat Cuts")

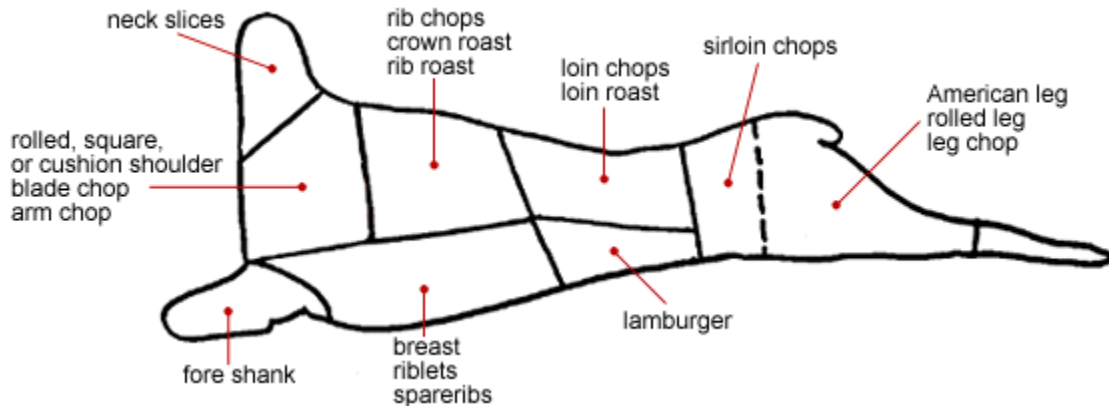
Shoulder Arm Cuts	 Arm Bone
Shoulder Blade Cuts (Cross Section of Blade Bone)	 Blade Bone (near neck)  Blade Bone (center cuts)  Blade Bone (near ribs)
Rib Cuts	 Back Bone and Rib Bone
Short Loin Cuts	 Back Bone (T-shape) T-Bone
Hip (Sirloin) Cuts (Cross Sections of Hip Bone)	 Pin Bone (near short loin)  Flat Bone (center cuts)  Wedge Bone (near round)
Leg or Round Cuts	 Leg or Round Bone
Breast or Brisket Cuts	 Breast and Rib Bones

Retail Cuts of Lamb

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At the retail markets, boxed cuts are used to generate retail cuts for the meat case. Different stores have their own styles for each cut in an attempt to meet their customers' needs. Retail specifications include size or thickness of cut, external fat trim, boneless or bone-in, and number of cuts per package. Items generated other than steaks and roasts may include stir fry, kabob, cubing material, and grinding material for processed or value-added products. Labels on meat must be specific for species, wholesale cut and retail cut names (example: Lamb Shoulder Blade Chop). Retail cuts of lamb can be reviewed at:

<http://www.tvsp.org/retail-cuts.html>



Source: <https://sites.google.com/site/andersoncounty4hlivestock/meats>



American Leg

Arm Chop

Blade Chop

Center Loin Chop



Center Rib Chop

Frenched Leg

Neck Slice

Visit the grocery store and practice visually identifying cuts of lamb or go to: <https://aqrilife.org/4hmeat/academics/meat-science/4h/retail-id/lamb-id-table-senior/>

Meat Cookery

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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 steaks or chops. 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 tenderer 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.

Read about cooking various cuts of lamb by printing out the fact sheet:

<http://www.askthemeatman.com/pdf%20files/lambprocessing.pdf>

Meat Facts ***

100g Roasted	Calories (g)	Fat (g)	Sat'd 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