2014 Sarasota County

Rabbit Skill-a-thon Study Guide

Provided by:

Small Animal Tent Personnel
Introduction

This manual has been developed as a study guide for the Sarasota County Fair Rabbit Skillathon. The topic for this year’s Skillathon is “Products and Marketing.

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.

The knowledge and skills vary by age group and may include; but not limited to the following:

1. Animal By-products – Juniors/Seniors
2. Breeds by Use and Classes – Juniors/Seniors
3. Types of Fur – Juniors/Seniors
4. Cookery – Juniors/Seniors
5. Skeletal Anatomy – Juniors/Seniors

Juniors (age 8 - 12 as of September 1, 2013)

Seniors (Age 13 - 18 as of September 1, 2013)
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, by-products represent multibillion dollar industries. An added benefit of changing inedible parts of carcasses into useful products is that the decaying materials do not 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".

Edible by-products:

<table>
<thead>
<tr>
<th>Raw Material</th>
<th>Principal Use</th>
</tr>
</thead>
<tbody>
<tr>
<td>Brains, kidneys, heart, liver, Testicles</td>
<td>Variety Meats</td>
</tr>
<tr>
<td>Cheek and head trimmings</td>
<td>Sausage ingredient</td>
</tr>
<tr>
<td>Blood</td>
<td>Sausage component</td>
</tr>
<tr>
<td>Fats</td>
<td>Shortening (candies, chewing gum)</td>
</tr>
<tr>
<td>Intestines</td>
<td>Sausage casings</td>
</tr>
<tr>
<td>Bones</td>
<td>Gelatin for food products</td>
</tr>
</tbody>
</table>

Inedible by-products

<table>
<thead>
<tr>
<th>Raw Material</th>
<th>Processed by-products</th>
<th>Principal Use</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hides</td>
<td>Leather</td>
<td>Leather goods</td>
</tr>
<tr>
<td></td>
<td>Glue</td>
<td>Sandpaper, plywood</td>
</tr>
<tr>
<td></td>
<td>Hair</td>
<td>Felts, brushes, insulation</td>
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<tr>
<td></td>
<td></td>
<td>Upholstery</td>
</tr>
<tr>
<td>Pelts</td>
<td>Wool</td>
<td>Textiles</td>
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<tr>
<td></td>
<td>Skin</td>
<td>Leather goods</td>
</tr>
<tr>
<td></td>
<td>Lanolin</td>
<td>Ointments</td>
</tr>
<tr>
<td>Fats</td>
<td>Inedible tallow</td>
<td>Industrial oils, lubricants</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Insecticides, weed killers</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Rubber, plastics, floor wax</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Matches, crayons, chalk</td>
</tr>
<tr>
<td>Bones</td>
<td>Dry Bone</td>
<td>Glue, hardening steel, buttons</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Bone china</td>
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<tr>
<td></td>
<td></td>
<td>Animal feed, fertilizer</td>
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<tr>
<td></td>
<td></td>
<td>Water filter</td>
</tr>
<tr>
<td>Glands</td>
<td>Pharmaceuticals</td>
<td>Medicines</td>
</tr>
<tr>
<td>Lungs</td>
<td>Blood meal</td>
<td>Pet foods</td>
</tr>
<tr>
<td>Blood</td>
<td>Blood albumen</td>
<td>Fish feeds</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Leather preparations</td>
</tr>
<tr>
<td>Meat scraps</td>
<td>Meat Meal</td>
<td>Livestock, pet &amp; poultry feeds</td>
</tr>
</tbody>
</table>
Rabbit Breeds by Use and Classification

A descendant of the European wild rabbit, the domestic rabbit is used for many purposes in the US. In terms of numbers of owners, the pet segment of the industry is the largest. There are roughly 24,000 members of the American Rabbit Breeders Association and the majority of them raise rabbits as a hobby or to exhibit at shows. Between 6 and 8 million rabbits are marketed annually for meat purposes. Schools and universities use rabbits for teaching and research purposes. Other uses might include "feeder rabbits" for carnivorous/endangered/injured animals like eagles, condors, alligators and wolves. Rabbits are classified by color, type, shape, weight, fur, wool and hair.

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

Some examples of rabbit breeds and their uses are:

- **California** is considered the second best **commercial** breed due their good growth characteristics and white (normal) fur. (Medium)

- **Checkered Giant** – The Checkered Giant is one of 11 breeds with **defined markings**. It can be used as a meat and fur breed. (Medium to Large)

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

- **Holland Lop** is a pet breed that is popular at shows. (Small)

- **English & French Angora** – breeds which produce high quality **wool**. Wool is harvested by shearing or plucking. (Medium)

- **Florida White** – was developed for lab use and as a smaller **commercial** animal. (Small)

- **Flemish Giant** – Originally a **commercial** breed and is of impressive size. (Large)

- **New Zealand** – considered the best **commercial** breed due to excellent growth characteristics and meaty carcass. (Medium)

- **Rex** – their plush velvety fur used by the garment industry make them a pelt breed; but they are good **commercial** rabbits. (Medium)

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

Types of Fur

1. **Rex Fur** – The fur is short and plush-like. Rex fur stands upright and has guard hairs almost as short as the undercoat. This fur feels extremely smooth to the touch. The ideal length of Rex is 5/8 inch. It is a disqualification of Rex fur is less than ½ inch or more than 7/8 inch long. Rex fur should be extremely dense and have a springy resistance to the touch.

2. **Satin Fur** – This fur is fine, silky and very soft and dense. The special feature of Satin fur is its glossy sheen. Satin fur looks glossy because of the gloss-like hair-shaft and its ability to reflect light. The greater transparency makes Satin fur appear more brilliant in color compared to normal furred rabbits. Like normal and Rex fur. Satin Fur consists of guard hairs and underfur. Ideal length for Satin fur is one inch.
3. **Wool** – Angora breeds produce high quality wool that can be made into very soft, warm garments. Angora rabbit wool is much finer than sheep's wool. Angora wool can be harvested 3-4 times a year. The wool can be plucked or sheared. Angora rabbits raised for wool can produce ½ to 1 ½ pounds of wool each year.

4. **Normal Fur** – Includes all normal furred breeds. A coat of fur which "flies back" to a 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.

**Meat Cookery**

Methods of cooking meat include dry heat or moist heat. Dry heat improve flavor of meat; but increase chewiness and decrease tenderness. Moist heat cookery methods increase the tenderness of meat cuts. Cookery under moist heat for long periods generates steam. Methods should be selected based on initial tenderness of the cut, amount of time available for preparation, available cooking facilities/equipment and desired quality of the resulting product.

**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.

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

b) **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 form above or from both sides at the same time. It involves high heat and produces a distinct caramelized flavor.

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

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

e) **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.

f) **Stir-Frying** - 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.

g) **Deep-Fat Frying** – Cooking meat is immersed in fat. This method is only used with very tender meat.

**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 nutrients into the cooking liquid. However, if the cooking liquids are consumed and not totally lost, nutrients are transferred. Meat should never be boiled as it will toughen.

a) **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 temperature to soften and yield a tenderer product.

b) **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. Remember to not have liquid exceed 195 degrees.
c) **Simmering** – Involves cooking water at low temperatures (180 degrees) like stewing except more water is used and the is usually not browned first.

d) **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.

e) **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.
Rabbit Skeleton

Caudal Vertebrae
Hip Joint
Pelvis
Femur
Patella
Cervical Vertebrae
Sternal
Scapula
Skull
Maxilla
Mandible
Radius
Sternum
Metatarsus
Phalanges
Elbow
Tibia
Tarsus
Ribs