INTRODUCTION

This manual has been developed as a study guide for the Florida State Fair Skillathon which is part of the Champion Youth Program. The topic for this year’s Skillathon is nutrition and feeding management.

The Florida State Fair recognizes that agricultural education instructors, 4H 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.

** Additional information is noted in the study manual for preparing for the Champion of Champions competition.

Juniors (age 8-10 as of September 1, 2010)
Digestive tract parts identification
Feed classification & identification

Intermediates (age 11-13 as of September 1, 2010)
Digestive tract functions
Feed tag analysis
Aging by teeth

Seniors (age 14 and over as of September 1, 2010)
all of the above plus....
Evaluating Feed Efficiency
Evaluating and selecting feedstuffs
Body Condition Scoring

GOOD LUCK
**Dairy Nutrition**

What an animal eats, how it is digested, absorbed, utilized and what is excreted are the essence of nutrition. Good nutrition is basic to good health and production. Proper feeding requires knowledge of nutrients in feedstuffs available to the producer and the nutrient needs of their animals. It also includes an understanding of animal behavior and a management strategy that allows the animals to consume all that is required without causing digestive upset. Though general rules of thumb are helpful, each situation may require adjustments in order to optimize growth and production.

*Nutrients* are substances in the diet that support normal body functions. Some nutrients can be manufactured in the animal's body and are classified as *dietary non-essential*. Dietary essential nutrients must be provided in the ration. Nutrients can be classified into six groups: *water, carbohydrates, fats (lipids), proteins, vitamins and minerals*.

*Water* is the most essential nutrient and is involved in all body functions. It is the most abundant and therefore the cheapest nutrient. Animals receive water from drinking as well as from feeds that contain water. An animal that is not receiving enough water will not eat well. Factors which affect an animal's water consumption are the animal's size, feed intake, environmental temperature, humidity, and water quality.

*Proteins* function as the basic structural unit of the animal body and in metabolism. Protein is the main component of the organs and soft structures of the animal body with the exception of water. The dietary requirement for protein is highest in young, growing animals. All proteins are composed of simple units called amino acids. The particular amino acids in a protein determine the quality of that protein. Protein is one of the most expensive portions of the diet.

*Carbohydrates* are organic compounds formed in plants by the process of photosynthesis. They constitute about 75% of the dry weight of plants and grain. Carbohydrates serve as a source of energy in the body. A surplus of carbohydrates is transformed into fat and stored.

*Fats* function much like carbohydrates in that they serve as a source of energy. Fats produce 2 ¼ more energy than carbohydrates when digested; therefore a smaller amount is required to serve the same function.

*Vitamins* are essential for the development of normal tissue and necessary for metabolic activity. They are effective in the animal body in small amounts. When not eaten correctly and in the right amounts, a specific deficiency disease can result or toxicity may result if eaten in extremely high amounts. Vitamins are classified as being either fat soluble (A, D, E, K) or water soluble (B complex & C).

*Minerals* are inorganic, solid, crystalline chemical elements. They are classified as being either macro (Ca, P, Na, Cl, K, Mg & S) meaning found in high concentrations or micro minerals (Cr, Co, Cu, F, Fe, I, Mn, Mo, Ni, Se, Si, & Zn) meaning found in trace amounts. Calcium makes up nearly 50% of the total body mineral, phosphorus composes 25%, and other minerals make up the remaining 25%. Minerals function in protein synthesis, oxygen transport, and in skeletal formation and maintenance.
Specific nutrient requirements vary between species but also between individuals. Factors such as weight, environmental temperature, and level of production must be considered when determining optimum nutrient levels in a ration. Though it is tempting to provide more than enough as insurance, some nutrients cause problems (toxicity) if fed in excess. Also, the feeding of livestock accounts for 45-75% of production costs so overfeeding shrinks profits. Too much of a good thing is not good.

**Digestive Anatomy**

You are what you eat sounds silly but is somewhat true. Farm animals are grouped by what they eat, which is based on the type of digestive system they possess. **Herbivores** are vegetarians (cattle, sheep, goats, rabbits). **Carnivores** are flesh eaters (dogs). **Omnivores** eat both flesh and plants (pigs, chickens, humans). Based on the digestive system, animals are grouped as **monogastric** or **simple stomach** (pig), **polygastric** or **ruminant** (cattle, sheep, goats), **avian** (chickens), or **pseudo-ruminants** with a functional cecum (rabbits). Understanding the digestive system is fundamental to selecting the proper feeds and feeding system for your animal.

After studying this manual, you should be able to identify the parts of the digestive tract of a dairy cow and tell the function of each part.
Feed Classification and Identification

The “stuff” fed to animals in order to meet their nutritional needs are called feeds. The National Research Council (NRC) produces many publications on nutrient requirements of animals and nutrient content of most feedstuffs. Most youth purchase “complete rations”, however, it is helpful to know what may go into those rations. Go to the web site: http://www.ca.uky.edu/agripedia/AGMANIA/FEEDID/INDEX.asp and study feed ingredients so that you can visually identify those typically used in livestock feeds.

Though we generally group feeds into roughages (high fiber, >18% crude fiber (CF), less digestible) and concentrates (low fiber, <18% CF, more readily digestible). There are 8 international feed classes that are based on content and use.

1. Dry forages and roughages - cut and cured products with >18%CF like hay, straw, corn cobs, shells and hulls, paper, wood by-products and stover.
2. Pasture, range plants and forages fed fresh - all forages not cut or cut and fed fresh.
3. Silages and haylages - ensiled forages like corn, alfalfa and grass.
4. Energy feeds - products with <20% crude protein (CP) and <18%CF like cereal grains (corn, oats, wheat), mill byproducts, beet and citrus pulp, molasses, animal, marine and vegetable fats, nuts, roots and tubers.
5. Protein supplements - products with >20% CP or more protein from animal origin as well as oil meals like gluten, legume seeds, milling by-products of grains, brewery and distillery by-products, yeast, non-protein nitrogen.
6. Mineral supplements
7. Vitamin supplements
8. Non-nutritive additives - supplements such as antimicrobials, antifungals, antibiotics, antioxidants, probiotics, buffers, coloring material, flavors, hormones and medicines.

Digestive Function

The physical and chemical changes of feed within the gastrointestinal tract that allow nutrients to be released and absorbed into the body are called digestion. There are significant differences in the digestive processes between species. The type of digestive system an animal has determines what the animal can successfully use as feed. Complicated feed (forage) requires a complicated digestive tract (ruminant). The steps in digestion include: prehension (gathering), mastication (chewing), salivation, deglutition (swallowing), microbial, enzymatic and chemical breakdown, absorption of nutrients, defecation, and micturition (urination). For a review of rumen anatomy visit: http://mc050.k12.sd.us/Ruminant%20Digestive%20System.ppt
Mouth - Upper dental pad, lower incisors and both upper and lower molar teeth used in prehension, mastication, and salivation.

Esophagus - Hollow muscular tube that transports food from the mouth to the stomach

Stomach - four compartments; Rumen, Reticulum, Omasum and Abomasum (54 gallons)

Rumen - Large, hollow, muscular compartment that almost entirely fills the left side of the abdomen, functions in storage, soaking, mixing and microbial fermentation, and acts to absorb some specific nutrients (volatile fatty acids, ammonia). (40 gallons)

Reticulum - Nicknamed honeycomb, functions in moving ingested feed into the rumen or into the omasum and regurgitation of partially chewed food during rumination. Has very thick walls, traps foreign objects. (2.5 gallons)

Omasum - Nicknamed “many plies” or butcher’s Bible, reduces particle size and removes water. It is located on the right side and holds (4 gallons)

Abomasum - This is the glandular portion of the stomach which produces acid. It is located on the right, is called the true stomach and is where enzymatic digestion begins. (5
Gallons) Sm. Intestine- Pancreatic and intestinal juices break down proteins and carbohydrates while bile from the liver breaks down fats. The first section (duodenum) is involved in digestion, and the next two sections (jejunum & ileum) are actively involved in nutrient absorption. (17 gallons and 150 feet)

Lg. Intestine- Mainly absorbs water and end products of microbial digestion. The cecum has little function in ruminants. The colon is the site for water resorption and storage reservoir of undigested material which passes out of the rectum as feces. (8 gallons)

Feed Tag Analysis

It is required by law that all commercial feed products carry a proper label. You should be able to read and understand the information on a feed tag. Some of the information included will be: net weight in pounds, company brand name (trade name), product name (class or use), product type (textured, pelleted, extruded, etc.) purpose statement, warning or cautions, active drug ingredient (when applicable), guaranteed analysis (protein, fat, fiber, etc.), feed ingredients in order of content, company name and address, detailed use directions, other feeds (suggestions for other feeds in the total program). Go to a feed store and look at the tags on several types of feeds and determine which feeds are best suited to your program and which are the best value in terms of nutrients per dollar. Be prepared to interpret the information on a feed tag.

Guaranteed Analysis:

**Crude Protein**: not less than __%. This number represents nitrogen content of feed and does not give a clear picture of protein quality, (e.g. amino acid profile). If all of the protein is not from “natural” ingredients (e.g. contains urea or a similar product) the following statement must be added: “this includes not more than __% equivalent protein from non-protein nitrogen”

**Crude Fat**: not less than __%, typically 1 to 3%. At equal volumes fat contributes 2.25 times the amount of energy compared to carbohydrates. Increased crude fat levels can decrease digestion of forages (e.g., hays and grasses). Fat can be added to the diet in hot weather to maintain energy level when intake decreases

**Crude Fiber**: not more than __%. The higher the Crude Fiber, generally, the lower the digestible energy of the feed. The price should reflect this lesser energy, but frequently does not.

Some manufactures also show minimum/maximum quantities of calcium and phosphorus and other macro and micro minerals. Units of vitamins A and D may also be shown.

**Ingredients**: listing on the tag does not necessarily identify individual feedstuffs. Instead, it uses categories of feedstuffs, e.g., grain products (such as corn, oats, barley, wheat), processed grain by-products (bran, brewers grain, hominy), plant protein products (soybean meal, cottonseed meal, etc.), molasses products (cane or beet molasses, dehydrated molasses, wood molasses), and forage products (alfalfa meal or leaf meal). The phrase, roughage products, identifies the presence of cottonseed hulls or other types of hulls or ground hays. This total must be shown as a percentage of the feed. Their presence will cause the crude fiber guarantee to be abnormally high (16-26% or more) and, as indicated above, lowers the digestible energy content.
The feed tag will also list sources of minerals, any preservatives used, and any vitamin supplements present or used.

The fictitious tag below is included to encourage you to think about what information is actually available on the feed tag and to consider what it means to you in your feeding program.

**Super Milker Feed**

**GUARANTEED ANALYSIS**

Crude Protein, Minimum ......................... 30.0%
(This includes not more than 8.3% equivalent crude protein from non-protein nitrogen)
Crude Fat, Minimum .................................. 2.0%
Crude Fiber, Maximum .............................. 7.5%
Calcium (Ca), Minimum ......................... 1.3%
Calcium (Ca), Maximum ............................ 2.3%
Phosphorus (P), Minimum ....................... 0.9%
Iodine (I), Minimum .............................. 0.00015%
Salt (NaCl), Minimum ............................ 1.0%
Salt (NaCl), Maximum ............................. 2.0%

**INGREDIENTS**

Ground Newspapers, Ground Uncooked Turkey Feathers, Ammonium Nitrate, Super Phosphate, Tincture of Iodine, Used Crankcase Oil, Hardwood Sawdust, Ground Marble Chips, Vitamin A & D Oil, Ground Shoes (without Rubber Soles), Barber Shop Sweepings, Salt.

Manufactured By: LEAST IN THE EAST

Selling Directions: For price conscious feeders who are not interested in results.

**Teeth**

No matter how good your feeding program, if an animal cannot grasp and chew the feed effectively, production will be compromised. Though dairymen do not routinely mouth their cattle, it is a good idea to know if your cattle have “sound” mouths, particularly if that animal is a poor performer. A bonus when checking the teeth is that eruption and wearing patterns of teeth can be used to “age” an animal. This useful skill is almost a lost art. Visit the following web sites and view pictures of teeth from cattle of different ages.


Evaluating and Selecting Feeds

Dairy cows must consume a lot of feed to achieve high levels of production. One of the biggest challenges for dairy producers when evaluating and selecting feeds is the changing nutrient requirements in the dairy cow’s production cycle. Phase feeding is practiced on most successful operations in order to take into account the specific needs of the cows in the various phases of production.

Phase 1 - calving to 10 weeks of lactation – peak lactation, nutrient requirements exceed dry matter intake. Utilizing body stores to meet nutrient requirements so increase concentrate to forage ratio and/or add fat. Consider increased dietary protein requirements.

Phase 2 - 10 weeks to about 6 months – maximum dry matter intake meets requirements due to lower level of milk production.

Phase 3 - 6 months to end of lactation – intake exceeds requirements so regain body reserves

Phase 4 – Most of the dry period (6-8 weeks) when the body is restoring – reduced feed intake to maintenance and to meet gestation needs

Phase 5 – 1 to 3 weeks before calving – increase feed intake to adjust digestive system

Replacement heifers are expected to reach puberty and enter the breeding herd at 15 months of age. A goal of 1.7 pounds average daily gain should yield maximum growth with minimum fat deposition. Ionophores (lasalocid and monensin) are often fed to heifers to improve rate of gain, increase feed efficiency and to help fight coccidiosis. After breeding, it is important to balance protein and energy to encourage growth and discourage excess fat.

Newborn calves are separated from their mothers soon after birth and must be fed individually. Typically calves receive 2 quarts of colostrum (rich in antibodies) in two feedings during the first 12 hours of life. Even though calves have a ruminant digestive system, the rumen is
not fully functional until about 60 days of age. Therefore, calves are fed whole milk or milk replacer for the first two months of life. Calves should be fed with their head elevated in order to encourage the milk to by-pass the rumen via the esophageal groove. The more frequently the calf is fed, the better. At one week of age, calves should be offered a high protein starter ration and shortly after high quality hay. When calves are eating one pound of starter ration per day plus hay and milk replacer, it is time to start weaning them. They can then be offered a growing ration.

The type of animal being fed is a critical consideration in selecting a feed. There are other considerations as we try to determine VALUE of a feed. It is easy to look at the price of feed per bag and assume that lower cost is the same as higher value. Spend time thinking about your feeding management situation and the types of feeds you have available. Be prepared to judge the relative value of feeds for various scenarios. There are several methods to assess the value of a feed.

1. Physical evaluation of feedstuff: Does it look good and smell good? Is it free of dust and mold? Is it fresh? Can you see indicators of quality such as high stem to leaf ratio in hays or a high percentage of corn in a finishing ration?

2. Cost per unit of nutrients: This requires some analysis and calculations but it is not difficult. 

   **Example:**

<table>
<thead>
<tr>
<th>Product</th>
<th>Soy Bean Meal</th>
<th>Linseed Meal</th>
</tr>
</thead>
<tbody>
<tr>
<td>Crude Protein</td>
<td>44%</td>
<td>35%</td>
</tr>
<tr>
<td>Cost</td>
<td>$9.40 per 100 Pounds</td>
<td>$5.50 per 100 pounds</td>
</tr>
</tbody>
</table>

   To solve this problem you must determine the value of each feedstuff for protein:

   - Do this by dividing the cost by the percentage of protein

   Soy bean Meal: $9.40/44 = 21 cents per pound of Crude Protein
   Linseed Meal: $5.50/35 = 15 cents per pound of Crude Protein
   Therefore linseed meal is cheaper.

   Another way is to look at productivity. If you must feed your animal twice as many pounds of a low cost, but low protein feed to achieve 100 pounds of gain, it may be more cost effective to pay for a higher price but feed less total pounds of feed.

   **Example:**

   Let’s look at the feed stuffs from above but add in rate of gain expected for each feed.

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</tr>
<tr>
<td>Rate of Gain</td>
<td>1 pound of gain per 4 pounds of feed</td>
<td>1 pound of gain per 7 pounds of feed</td>
</tr>
</tbody>
</table>

   Solve for cost per pound of gain.

   - First, determine cost per pound of feed
     - Soy Bean Meal $9.40/100 pounds = $0.094/pound
     - Linseed Meal $5.50/100pounds = $0.055/pound
   - Next, determine cost per pound of gain
     - Soy Bean Meal: $0.094 /pound X 4 pounds feed/pound gain = $0.376/pound of gain
     - Linseed Meal: $0.055 /pound X 7 pounds feed/pound gain = $0.385/pound of gain
   On a cost of gain basis, Soy Bean Meal saves you money.

3. There are a number of chemical analyses that are carried out on feeds by the companies that
produce them. This information is useful in evaluating quality.

4. An often used method of determining quality is to do a home feeding trial. You may do this already without thinking about it. If you run into problems one year, you make adjustments the next year. With limited numbers of animals, this is a slow, often costly process.

### Evaluating Feed Efficiency

Evaluating Feed Efficiency

Performance in growing heifers can be evaluated by calculating average daily gain as well as feed efficiency. Feeding management strategies should strive to optimize growth to reach the desired end point in an appropriate time frame. For example; if the beginning of the breeding season is 175 days away and your heifer must gain 300 pounds in order to reach puberty or a desirable body condition, the heifer must gain an average of 1.71 pounds per day. If the heifer eats 11 pounds of feed per day for 175 days at that rate of gain, feed efficiency for that period of time is 6.4 pounds of feed per pound of gain. The cost of gain is determined by multiplying the cost per pound of feed by the pounds of feed per pound of gain. Therefore, in this scenario, $8.00 per 100 pounds of feed with 6.4:1 feed efficiency comes out to $0.51 per pound of gain.

### Evaluating Body Condition

Evaluating Body Condition

Adjustments in feeding management require knowledge of the individual or herd nutritional status. Changes in body condition or fat deposition provide valuable insight. The degree of fatness is evaluated visually and by touch, considering the shoulder, brisket, rib, and rump regions. Below are the descriptions of the 5 body condition scores used in dairy production. You should be familiar with this system of evaluation and its applications.

**BCS 1** Individual short ribs have a thin covering of flesh. Bones of the chine, loin, and rump regions are prominent. Hook and pin bones protrude sharply, with a very thin covering of flesh and deep depressions between bones. Severe depression appear below tail head and between pin bones. Bony structure protrudes sharply, and ligaments and vulva are prominent.

**BCS 2** Individual short ribs can be felt but are not prominent. Ends of ribs are sharp to the touch but have a thicker covering of flesh. Short ribs do not have as distinct an "overhanging shelf" effect. Individual bones in the chine, loin, and rump regions are not visually distinct but easily distinguished by touch. Hook and pin bones are prominent, but the depression between them is less severe. Area below tail head and between pin bones is somewhat depressed, but the bony structure has some covering of flesh.

**BCS 3** Short ribs can be felt by applying slight pressure. Altogether, short ribs appear smooth and the overhanging shelf effect is not so noticeable. The backbone appears as a rounded ridge; firm pressure is necessary to feel individual bones. Hook and pin bones are rounded and smooth. Area between pin bones and around tail head appears smooth, without signs of fat deposit.

**BCS 4** Individual short ribs are distinguishable only by firm palpation. Short ribs appear flat or rounded, with no overhanging shelf effect. Ridge formed by backbone in chine region is rounded and smooth. Loin and rump regions appear flat. Hooks are rounded and the span between them is flat. Area of tail head and pin bones is rounded, with evidence of fat deposit.
BCS 5 Bony structures of backbone, short ribs, and hook and pin bones are not apparent; subcutaneous fat deposit very evident. Tail head appears to be buried in fatty tissue.

Review the power point presentations: Beginner’s Guide to BCS as well as Learn to Score BC Step by Step found at the web site: http://www.das.psu.edu/dairynutrition/nutrition/

Processing Feeds**

Because feed constitutes a major portion of the cost of intensive animal production, it is very important that a diet have the right nutrient content and be in a form that will encourage consumption without excessive feed waste. Feeds are often processed by mechanical, chemical or thermal methods in order to alter the physical form or particle size to prevent spoilage, isolate certain parts of the seed or plant, to improve palatability and digestibility, or sometimes to inactivate toxins. Occasionally feed is processed to improve handling, like chopped hay. Some methods include: roller mill cracking, grinding, steam-rolled and steam-flaked, pelleting, extruding, popping, drying and cubing. Obviously there are costs associated with processing so the improvements in productivity must offset price increases.

Poisonous Plants**

There are many plants which are harmful to cattle. Most of the time cattle will not eat them but in drought situations, they may. Some examples are: Bracken fern, Birdsfoot trefoil, Cocklebur, Elderberry, Low Larkspur, Oak, Tall Larkspur, Timber milk vetch, Tall Fescue, Pigweed, Water hemlock, Broom weed, Choke cherry, Copper weed, Desert parsley, Halogeton, locoweed, leu pine, Milk weed, lambs quarters,Crotolaria, Lantana, Poinsettia, Sorghum, and Nightshade. Visit the following web sites to learn about the poisonous plants in the southeast. http://www.ansci.cornell.edu/plants/anispecies.html http://www.caf.wvu.edu/~forage/library/poisonous/content.htm

Common Nutritional Disorders**

<table>
<thead>
<tr>
<th>Disorder</th>
<th>Chief Cause</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hardware disease</td>
<td>Wire or nails lodged in reticulum</td>
</tr>
<tr>
<td>Ketosis</td>
<td>Sudden need for extra energy</td>
</tr>
<tr>
<td>Milk fever</td>
<td>Sudden need for Ca (lactation)</td>
</tr>
<tr>
<td>Acidosis</td>
<td>Excess grain consumption</td>
</tr>
<tr>
<td>Grass tetany</td>
<td>Mg deficiency</td>
</tr>
<tr>
<td>Night blindness</td>
<td>Vitamin A deficiency</td>
</tr>
<tr>
<td>Goiter</td>
<td>Iodine deficiency</td>
</tr>
<tr>
<td>Rickets</td>
<td>Ca, P, or vitamin D deficiency (young animals)</td>
</tr>
<tr>
<td>Anemia</td>
<td>Fe, Cu, vitamin B&lt;sub&gt;12&lt;/sub&gt;, or folic acid deficiency</td>
</tr>
<tr>
<td>Founder (laminitis)</td>
<td>Too rapid change in the ration</td>
</tr>
<tr>
<td>Liver abscesses</td>
<td>Bacteria in the gut that grows quickly when cattle are on low roughage/high concentrate finishing rations</td>
</tr>
<tr>
<td>Photosensitization</td>
<td>Some feeds or forages or accumulation of metabolites</td>
</tr>
<tr>
<td>Bloat</td>
<td>Slime producing bacteria increase and slime traps rumen gas.</td>
</tr>
</tbody>
</table>
Calf scours
Most common on lush legume pastures
Severe diarrhea
**DAIRY SHOWMANSHIP**

**ATTIRE:**
Required Dress Code: All exhibitors will be required to be clean and neat and dressed in white, green, dark blue or dark black jeans or slacks with a solid white shirt with a white collar. (White is preferred for dairy cattle) FFA and 4-H accessories are strongly recommended. No caps or hats. Closed-toed shoes or boots are required. Leather shoes are recommended when showing large animals.

Showmanship Scorecard:

A. Appearance of Animal........................................................................................................................30
   1.  Condition and thriftiness, showing normal growth, being neither too fat nor too thin......................... 5
   2.  Grooming ....10
    Hair properly groomed and the hide soft; hoofs trimmed and shaped to enable animal to walk and stand naturally.
   3.  Clipping  5
    The final clipping should be done about two days before the show.
   4.  Cleanliness. .......................................................................................................................... 10
    Hair and switch clean and, if possible, free from stains; hide, ears, feet and legs free of dirt.

B. Appearance of Exhibitor ...........................................................................................................................10
   Follow Florida State Fair required dress code.

C. Showing Animal in the Ring......................................................................................................................60
   1.  Leading  25
    Enter the ring leading the animal in a clockwise direction, walking opposite her head on the left side, holding the lead strap with the right hand quite close to the halter with the strap neatly gathered in one or both hands. Holding close to the halter insures a more secure control. Your animal should lead readily and respond quickly. It is important to have a halter of right type, fitting properly and correctly placed on animal. A leather halter with a narrow nose strap is preferred. When the judge is evaluating your animal, the preferred method of leading is walking slowly backward facing the animal and holding the lead in the left hand with the remainder of it neatly, but naturally, gather in one or both hands. (Face forward when leading at all other times.) Lead slowly with the animal’s head held high enough for impressive style, attractive carriage and graceful walk.
   2.  Posing ........................................................................................................................................ 15
    When posing and showing an animal, stay on the animal’s left side and stand faced at an angle to her in a position far enough away to see stance of her feet and her topline. To pose a heifer, place feet squarely under her with the hind leg nearest to the judge slightly behind the other one. When posing a cow in milk, the hind leg nearest to the judge should be slightly ahead of the other one. If possible, pose the animal on an incline. Neither crowd the exhibitor next to you, nor leave enough space for another animal when you lead into a side by side position.

   An animal may be backed out of line when a judge requests that her placing be changed. Many prefer to lead an animal forward and around the end of the line or back through the line. Do not lead an animal between the judge and an animal he/she is observing. Do most of the showing with the halter lead strap and avoid stepping on the animal’s hind feet to move them.

   Step an animal ahead by a slight pull on the lead strap. Move an animal back by exerting pressure on the shoulder point with the thumb and fingers of the right hand as you push back with the halter.

   3.  Show Animal to Best Advantage........................................................................................................10
    Quickly recognize the conformation faults of the animal you are leading and show her to overcome them. You may be asked to exchange with another and show her or his heifer or cow for a while.

   4.  Poise, Alertness and Attitude............................................................................................................ 10
    Keep an eye on your animal and be aware of the position of the judge at all times. Do not be distracted by persons and things outside the ring. Respond rapidly to requests from the judge and officials. Be courteous and sportsmanlike at all times, and keep showing until the entire class has been placed and the judge has given his/her reasons.

Total .........................................................................................................................................................100