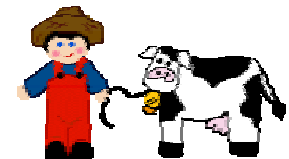


Virginia 4-H Dairy Quiz Bowl Team Study Materials
Section 13. Dairy Cattle Judging, Fitting and Showing

- PDCA Dairy Cow Unified Score Card (Most recently revised in 1994)
 - Frame15%
 - Dairy Character20%
 - Body Capacity10%
 - Feet and Legs15%
 - Udder.....40%
- Dairy Heifer Score Card
 - Frame40%
 - Dairy Character20%
 - Feet and Legs30%
 - Body Capacity10%
- According to the PDCA Dairy Cow Score Card...
 - A mature Ayrshire cow in milk should weigh 1200 lb.
 - A mature Brown Swiss cow in milk should weigh 1500 lb.
 - A mature Guernsey cow in milk should weigh at least 1150 lb.
 - A mature Holstein cow in milk should weigh 1500 lb.
 - A mature Jersey cow in milk should weigh about 900 lb.
 - A mature Milking Shorthorn cow in milk should weigh 1400 lb.
- When exhibiting a dairy animal, the parading circle before the judge should move clockwise.
- One should lead a dairy animal from the left side of the animal.
- When showing a dairy heifer, the rear leg nearest the judge should be placed farther back than the other. When showing a dairy cow, the rear leg nearest the judge should be placed farther forward than the other.
- Heifer classes in a dairy show:
 - Spring heifer calf
 - Winter heifer calf
 - Fall heifer calf
 - Summer yearling heifer
 - Spring yearling heifer
 - Winter yearling heifer
 - Fall yearling heifer
- The PDCA Dairy Cow Unified Score Card was first copyrighted in 1943.
- The three major differences in breed character of all dairy animals are:
 - Color
 - Shape of head
 - Size
- Fitting and Showmanship Score Card:
 - Appearance of animal 40 points
 - Appearance of exhibitor 10 points
 - Presentation of animal 50 points
- Important points in selecting a calf as a project animal:
 - Age
 - Breed
 - Health
 - Pedigree
 - Conformation
- Items that a judge looks for when judging a fitting and showmanship contest:
 - Animal's condition
 - Cleanliness
 - Clipping
 - Grooming
 - Appearance of exhibitor
 - Leading the animal
 - Posing the animal
 - Showing the animal to best advantage
 - Poise, alertness, and attitude
- The *Hoard's Dairyman* Cow Judging Contest begins with the January 10 issue each year.
- The National 4-H Dairy Cattle Judging Contest is held at the World Dairy Expo in Madison, Wisconsin.
- The hock is used as the reference point to determine the height of the udder floor.



Virginia 4-H Dairy Quiz Bowl Team Study Materials

Section 14. People and Organizations

- Chairman, US House Agriculture CommitteeRep. Larry Combest (R-TX)
- Chairman of the US House Livestock and Horticulture SubcommitteeRep. Richard Pombo (R-CA)
- Chairman of the US Senate Agriculture, Nutrition, and Forestry Committee Sen. Richard Lugar (R-IN)
- US Secretary of Agriculture Ann Veneman
- CEO, National Milk Producers Federation.....Jerry Kozak
- CEO, National Dairy Herd Improvement AssociationDr. Paul Miller

- Dairy Management, Inc. is a nonprofit organization formed by the National Dairy Board and Unified Dairy Industry Association. The organization conducts programs in integrated marketing, communications, promotion, and research for US dairy farmers.
- The North American International Livestock Exposition is held in Louisville, Kentucky.
- The World Dairy Expo is held in Madison, Wisconsin.
- *Hoard's Dairyman* is the "national dairy farm magazine" which was founded in 1885 and is published in Fort Atkinson, Wisconsin.
- The National Dairy Shrine is located in Fort Atkinson, Wisconsin.
- The National Milk Producers Federation has its headquarters in Virginia.
- The Northeast Dairy Practices Council was founded in 1970. In 1994, the name of the organization was changed to the Dairy Practices Council.
- The Southeast United Dairy Industry Association, Inc., exists for the purposes of promoting dairy products and educating consumers.
- The National Cheese Exchange is located in Green Bay, Wisconsin.
- S. M. Babcock developed the butterfat test in 1890 that was the basis for DHIA testing.
- Louis Pasteur of France invented the pasteurization process. He is considered the first person to discover that bacteria cause food spoilage and disease.
- The following items are traded daily at the Chicago Mercantile Exchange:
 - Block and barrel cheese (cash)
 - Class III and Class IV milk futures and options
 - Butter futures
- Ray Williams of Milton-Freewater, Oregon was elected the first president of the Professional Dairy Heifer Growers Association in April 1998.
- The National Conference on Interstate Milk Shipments (NCIMS) establishes the standards for Grade A milk.
- The American Dairy Science Association (ADSA), the American Society of Animal Science (ASAS), and the Poultry Science Association (PSA) formed the Federation of Animal Science Societies (FASS), effective January 1, 1998.
- The headquarters of National DHIA is located in Columbus, Ohio.
- Kraft Foods is the largest dairy processor in the U.S. based on 1998 dairy sales.
- The largest milk processor in the U.S. is Suiza Foods, based in Dallas.
- The largest dairy cooperative in the U.S. is Dairy Farmers of America.
- The New Zealand Dairy Board is the world's largest private exporter of dairy products.
- The Council on Dairy Cattle Breeding oversees approval of records systems standards and appoints the group to certify performance of DHI's and other herd record providers.

Virginia 4-H Dairy Quiz Bowl Team Study Materials
Section 15. Famous Dairy Cattle

- World Record Holder for Milk Production
 - Muranda Oscar Lucinda – ET (67,914 lb.)
- World Record Holder for Milk Production for Red & White Holstein cows
 - Elm Park Martini-Red (52,110 lb.)
- World milk production record for Brown Swiss cows
 - IE Olson Thane Jane (51,500 lb.)
- World milk production record for Jersey cows
 - Greenridge Berretta Accent (41,610 lb.)
- Ayrshire world production leader for milk, fat, and protein
 - Mini-Ayr IC Charlene C
- Queen Mother of the Brown Swiss breed
 - Jane of Vernon
- Supreme Champion at the 2000 World Dairy Expo
 - Vandyk-K Integrity Paradise (Holstein)
- First color breed Supreme Champion at the World Dairy Expo
 - Oak Ridge Kelly Rosid (Ayrshire) - 1975
- A cow in Scotland named “Old Jersey” holds the record for lactation length. She calved in 1914. Her lactation lasted for 15 years.
- The world’s oldest dairy cow, Star, was owned by Gust and Emma Dahlstrom from Ashland, Wisconsin. She was 39 years old when she died.
- Fisher-Place Mandingo was the first bull to produce one million units of semen.



- **Best Management Practices (BMPs) for livestock farms.** Cost share funds are often available to help farmers pay for these.
 - Fence animals out of bodies of surface water to prevent contamination of the water with nutrients and pathogens from manure.
 - Install an alternative water source to keep animals out of surface water. Well-managed alternative water sources usually provide the animals with cleaner water, and help prevent exposure to certain diseases.
 - Install stream crossings to keep animals out of surface water.
 - Install buffer strips between cropland and surface water to reduce nutrient runoff.
 - Shoreline or creek bank stabilization and protection to reduce erosion.
 - Animal travel lane stabilization to reduce runoff and erosion.
 - Rotational loafing lot management system. These are vegetated exercise and rest areas installed to replace dirt exercise lots. Runoff and soil erosion is reduced because the grass growing on the lots uses nutrients and stabilizes soil, and cows stay cleaner.
 - Install a storm water retention pond to collect runoff during rainstorms.
 - Plant small grain cover crops to increase use of land applied nutrients, and stabilize cropland, prevent erosion in wintertime.
 - Install a manure storage facility: Allows manure to be applied according to crop needs rather than on a daily basis.
 - Manure testing: Measuring nutrient content of manure may reduce fertilizer purchases and prevent application of nutrients in excess of crop requirements.
 - Controlling surface water runoff.
 - Implement a nutrient management plan.
- Common dairy cattle bedding materials
 - Newspaper
 - Recycled manure solids
 - Sand
 - Sawdust (green or kiln-dried)
 - Shavings
 - Straw
- Composting is an acceptable way of disposing of dead calves and cows. Two to six months are required for composting depending on the size of the animal and the rate of the compost reaction.
- Composting requires:
 - Air
 - Moisture
 - Nutrients
 - Carbon
- Phosphorus and nitrogen contamination of ground and surface water are the leading environmental issues facing farmers.
- Methods of reducing soil erosion:
 - Wind breaks
 - Cover crop
 - Strip cropping
 - Contour cropping
 - Terracing
 - Grass waterways
 - Reduced tillage
 - Soil seeding
- Advantages of composting manure:
 - Reduces volume
 - Doesn't attract flies and insects
 - Reduces potential for nutrient runoff
 - Weeds and pathogens destroyed
 - More uniform than manure
 - Reduces fertilizer needs
 - Excellent soil conditioner
- The anaerobic pit is the method of manure storage that results in the least loss of nitrogen. The lagoon results in the greatest loss.
- Factors that affect the nutritive value of manure after it has been applied to land:
 - Type of feed ration
 - Method of collection
 - Method of storage
 - Amount of added feed, bedding, and water
 - Time of application
 - Method of application
 - Soil characteristics
 - Crop
 - Climate



- Top Five States - Milk Production Per Cow (1999)
 - Washington 22,409 lb
 - Arizona 21,873 lb
 - Colorado 20,819 lb
 - California 20,788 lb
 - New Mexico 20,366 lb
- Top Five States - Total Milk Production (1999)
 - California 30.5 billion lb
 - Wisconsin 23.1 billion lb
 - New York 12.0 billion lb
 - Pennsylvania 11.0 billion lb
 - Minnesota 9.5 billion lb
- Top Five States - Number of Dairy Cows (1999)
 - California 1,466,000 cows
 - Wisconsin 1,365,000 cows
 - New York 701,000 cows
 - Pennsylvania 616,000 cows
 - Minnesota 545,000 cows
- According to the Wisconsin Agricultural Statistics Service in 1998, Japan had the highest annual milk production per cow in the world at 18,475 pounds.
- The United States had the highest total milk production of any country in the world in 1998.
- The number of cows in the US reached its peak in 1945.
- Four necessary economic inputs for a dairy operation are land, labor, capital, and management.
- The minimum wage in the US was increased to \$5.15 per hour effective September 1, 1997.
- The Basic Formula Price was replaced by Class III (cheese milk) and Class IV (butter/powder) prices, based on product price surveys. The last Basic Formula Price was calculated in December 1999.
- The Agricultural Marketing Agreement Act of 1937 provided for Federal Milk Marketing Orders.
- As of January 1, 2000, there are 11 Federal Milk Marketing Orders in the US. Component pricing will be used in 7 of the orders.
- The current support price for milk is \$9.90 per hundredweight for 3.67% fat milk.
- Top Five Milk Producing Cooperatives in the US (1999)
 - Dairy Farmers of America
 - California Dairies
 - Land O'Lakes, Inc.
 - Northwest Dairy Association
 - Dairylea Cooperative, Inc.
- Five principles used to cool cows during heat stress:
 - Shade
 - Air exchange
 - Air movement
 - Water
 - Sprinkle
- Weights and measures
 - A gallon of milk weighs 8.6 lb
 - A quart of milk weighs 2.15 lb
 - A bushel of corn weighs 56 lb
 - A bushel of wheat weighs 60 lb
 - A bushel of barley weighs 48 lb
 - A bushel of oats weighs 32 lb
 - A bushel of soybeans weighs 60 lb
 - A hundredweight (cwt.) weighs 100 lb
- Selection tools that a dairy manager can use when hiring a new employee:
 - Application forms
 - Interviews
 - Reference checks
 - Work tests
 - Trial periods
- June is National Dairy Month.

- Types of flies that are commonly found around the dairy farm:
 - House fly
 - Stable fly
 - Face fly
 - Horn fly
 - Heel fly
 - Deer fly
- Conditions which house and stable flies need to survive and reproduce:
 - Heat
 - Moisture
 - Suitable breeding medium
- The four phases of a fly's life cycle are:
 - Egg
 - Larvae
 - Pupa
 - Adult
- The standard length of a DHIA record is 305 days.
- The meaning of "305-2X-ME" on dairy records is that the lactation record was adjusted to a 305 day lactation, twice a day milking, mature equivalent.
- If one sees "3X" in a dairy animal's production records, it stands for milked three times a day.
- DHIA members are required to choose how their records will be disclosed. The three options available are:
 - Open disclosure
 - Limited disclosure
 - No disclosure
- Three things may terminate a DHIA record:
 - Dried off
 - Aborted
 - Died
- Three things that a lactation is generally adjusted for in dairy records:
 - Lactation length
 - Mature equivalent
 - 2 times a day milking
- Dairy cattle can be sold privately on the farm or in auction sales. Three types of auction sales are:
 - Consignment
 - Dispersal
 - Reduction
- American ID numbers for dairy cattle consist of nine digits and are used by DHI organizations, breed associations, and state animal health departments.
- The American Farm Bureau Federation's eighth annual dairy herd survey found that, as of July 2000, there were 83,025 herds with permits to sell milk.
- One kilogram equals 2.2 pounds.
- Cheese and nonfat dry milk are traded daily at the Chicago Mercantile Exchange.
- Fifteen cents per hundredweight of milk sold are deducted from every dairy producer's milk check to pay for promotion and research.
- The purpose of the Dairy Options Pilot Program (DOPP) is to educate dairy producers in the use of options contracts as risk management tools and to ascertain the usefulness of options to dairy producers in various regional markets. The program was first launched by USDA in June 1998.
- The main reason that dairy cows refuse to use freestalls is size.
- The most important feature when selecting tags or brands for identification is visibility.
- Twenty-five percent of the US beef supply is supplied by dairy farmers.

Virginia 4-H Dairy Quiz Bowl Team Study Materials

Appendix A – Selected References

- Hoard's Dairyman. 1993. Fresh Cow Problems. W. D. Hoard & Sons Company, Fort Atkinson, WI.
- Hoard's Dairyman. 1993. Herd Health. W. D. Hoard & Sons Company, Fort Atkinson, WI.
- Hoard's Dairyman. 1994. Calf Care and Raising Young Stock. W. D. Hoard & Sons Company, Fort Atkinson, WI.
- Hoard's Dairyman. 1996. Dairy Cattle Fertility & Sterility. W. D. Hoard & Sons Company, Fort Atkinson, WI.
- Holstein Foundation. 1997. World of Dairy Cattle Nutrition. Holstein Foundation, Inc., Brattleboro, VT.
- Hutjens, M. 1998. Feeding Guide. W. D. Hoard & Sons Company, Fort Atkinson, WI.
- Mayer, Shelly. 1995. Preparing Dairy Cattle for Show. W. D. Hoard & Sons Company, Fort Atkinson, WI.
- McCullough, M. E. 1989. Roughage for Dairy Cattle. W. D. Hoard & Sons Company, Fort Atkinson, WI.
- McCullough, M. E. 1994. Total Mixed Rations & Supercows. 2nd ed. W. D. Hoard & Sons Company, Fort Atkinson, WI.
- Philpot, W. N., and S. C. Nickerson. 1991. Mastitis: Counter Attack. Babson Bros. Co., Naperville, IL.
- Purebred Dairy Cattle Association. 1994. Dairy Cow Unified Score Card. Purebred Dairy Cattle Association, Brattleboro, VT.
- Spahr, S. L., and G. W. Opperman. 1995. The Dairy Cow Today. W. D. Hoard & Sons Company, Fort Atkinson, WI.