HISTORY OF POULTRY PRODUCTION

“Not just feet and feathers”
WHAT IS POULTRY?

*Poultry* is a term for domesticated fowl, particularly focusing on the species valued for their meat and egg use, such as chickens and turkeys. In this lesson, we will focus on chicken production of meat and eggs.
I. Chicken Production
   A. Individual households and small flocks.
      - Backyard farming.
      - Egg and meat birds for family consumption.
      - Excess birds and eggs sold to neighbors.

II. Egg Production
   A. Due to the lack of research and information, programs such as photoperiod cycling were inexistent.
   B. Farmers did not know that lighting can have an impact on the laying cycles of chickens.
I. Beginning of Broiler Production

- The increasing demand for eggs = an excess amount of young male birds.
- Farmers would then sell these birds to the locals for meat.
- Increase in demand for meat birds
  - Farmers began to notice some birds were better suited for laying eggs while others were better producers of meat.
- Farmers began to raise *single purpose* chickens used for one reason -- either egg or meat production and were efficient, as opposed to *dual purpose* chickens that were used for both egg and meat production, but just average in production.
Selection of certain birds created the best yields for the farmer because they could specialize in one area with better birds. These backyard farmers began to sell eggs and live birds at local farmers markets.

Broiler: a specialized meat bird (single purpose).
Do you/your parents buy whole body chickens or pieces?
THE BEGINNING OF PROCESSED CHICKENS

- Poultry industry begins to modernize.
- Producers begin to sell their birds already processed -- killed and cleaned.
- The prominent way to buy a chicken became a "New York Dressed":
  - a plucked and slaughtered chicken carcass with its feet and head intact.
Producers begin to grow businesses.

- Need more space to expand and profit.
- Became fully *integrated*, or involved in all areas of the production process, and build facilities.
  - Hatcheries, feed-mills, farms, and processing plants in separate locations.
  - Allows expansion of the company in an area and also reduce the risks of potential diseases spreading throughout the different areas of production.
1949: the United States Department of Agriculture established a voluntary carcass grading of the birds.

- Help consumers determine the quality of the carcasses.
- Set a standard to be met by producers.

**Egg Production in ’40s**

- Wire-caged housing for egg layers begins.
  - Healthier and more efficient for producers.
    - Eggs could be collected easier.
    - Diseases were easier to prevent and control.
EGG CONSUMPTION DECLINE

- **Cholesterol Controversy**
  - Late 1940s: studies released proposing controversial negative effects of eggs because of high cholesterol.

- **Movement from Rural to Urban Living**
  - Less eggs being consumed as families began to move from their farms and rural areas into urban cities for work.
  - Less time and space for having personal flocks.
Vertical Integration

- Poultry industry moved to *vertical integration*: integrators involved in every stage of production, processing, and marketing.
- Advantages: more efficient, responsive, and profitable.
- Mid-1960s: 90% of broilers produced came from vertically integrated operations.
Television provides new marketing opportunities

Poultry industry uses TV and media to promote more consumption of chicken, turkey, and eggs.

- Advertising increased both consumer demand and brand name recognition
1954: NATIONAL BROILER COUNCIL ESTABLISHED

- The National Broiler Council created
  - Stimulate consumer demand
  - Name was changed in 1990 to the National Chicken Council.

1959: USDA MANDATORY FEDERAL INSPECTION OF BROILERS

- Mandatory inspection of all poultry plants producing meat for consumption for the safety of the consumer.
1960’s: “Expansion of the Egg Industry”

- A combined effort in producing, marketing, and management to push the egg industry from an era of small flocks to one of commercial production.
- Quality of machinery from layer house to processing equipment improved drastically.
1970’s - Present Day Production
Modern Production of Meat

- Poultry industry moved to its present modern methods of production.
- Research in nutritional discoveries, disease eradication programs, genetic improvements, and new technologies.
- Poultry has become an efficient, reliable, and healthy source of protein.
- A major contributor = the mechanization of processing and automation technologies.
Supply and Demand

Dramatic increase in broiler consumption for a variety of reasons:

1. Increased Health Perception: healthier protein to consume
2. Increase in Convenience vs. Whole Bird Sales:
   - 1980’s: a shift in the type of meat products people could purchase at the market.
   - Consumers preferred further processed and already cut-up meat compared to doing it themselves at home.
   - New products: chicken tenders and other ready-to-eat frozen foods.
   - Convenience items: rotisserie chickens also became a big hit.
3. **Low Cost**: The price of chicken compared to other meat is lower because of efficiencies in productions.

4. **Fast Food Outlets**: Many meals at fast food restaurants now have chicken options or are solely chicken.
1992: CHICKEN SURPASSES BEEF

- Chicken consumption outnumbered beef consumption, becoming the most consumed meat in the United States.
- Per capita consumption of chicken in the United States in 2008 showed that Americans ate more than 85 pounds of chicken that year!
Contributed to make eggs more appealing to health-conscious consumers, increasing sales.

**Designer eggs**: eggs which have higher concentrations of:
- Vitamin E
- Omega-3 fatty acids (good for the heart)
A steady rise of *per capita* egg consumption, or amount consumed per person. This rebound can be seen for three main reasons:

1. Fast food implementation: eggs in breakfast foods.
2. An increased health perception based on recent research.
3. Further processed items that contain egg products: rice cakes or egg noodles, etc.
International markets sought:
1. High demand for leg quarters and chicken feet
2. Opportunities in Russia, China and Latin American
3. Overall increase in worldwide demand
4. 20% of U.S. poultry production exported
January 26, 1998
Further regulations for food safety.
HACCP required by the USDA in all slaughtering facilities of all species.
HACCP is “Hazard Analysis and Critical Control Points” enacted for protocol of cleanliness and safety by the plants, restaurants, and food service industries.
The poultry industry has an enormous impact on the economy.

- Sales in excess of $60.0 billion annually
- One of the nation’s agricultural leaders.
- Provides jobs for over 400,000 people
  - Employees work in a variety of jobs: farm managers, processing plant workers, researchers, accountants, and poultry executives.
- Indirectly provides jobs to hundreds of thousands more in affiliated industries
  - Examples: trucking and feed ingredient suppliers.
The question is not "What came first?"
but "What is coming next?"

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