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UNITED STATES DEPARTMENT OF AGRICULTURE
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Overview of the U. S. Turkey Industry

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Turkeys

The United States turkey industry has changed through consolidation and technological innovation over the last quarter century. There are fewer operations now than in 1929, but productivity is much higher. In 1975, there were 180 turkey hatcheries in the United States compared with 55 operations in 2007, or 31 percent of the 1975 hatcheries (Chart 1). Incubator capacity in 1975 was 41.9 million eggs, compared with 38.7 million eggs in 2007 (Chart 1). Hatchery intensity increased from an average 33 thousand egg capacity per hatchery in 1975 to 704 thousand egg capacity per hatchery in 2007 (Chart 2).

Turkeys were historically hatched and raised on the same operation and either slaughtered on or close to where they were raised. Historically, operations owned the parent stock of the turkeys they raised supplying their own eggs. The increase in technology and mastery of turkey breeding has led to highly specialized operations. Each production process of the turkey industry is now mainly represented by various specialized operations.

Eggs are produced at laying facilities, some of which have had the same genetic turkey breed for more than a century. Eggs are immediately shipped to hatcheries and set in incubators (Chart 3). Once the poults are hatched, they are then typically shipped to a brooder barn. As poults mature, they are moved to growout facilities until they reach slaughter weight. Some operations use the same building for the entire growout process of turkeys. Once the turkeys reach slaughter weight, they are shipped to slaughter facilities and processed for meat products or sold as whole birds.

Turkeys have been carefully bred to become the efficient meat producers they are today. In 1986, a turkey weighed an average of 20.0 pounds. This average has increased to 28.2 pounds per bird in 2006 (Chart 6). The increase in bird weight reflects an efficiency gain for growers of about 41 percent. Higher average per bird weight and technological operation practices have led to a significant increase in turkeys raised per year since 1929, growing from around 18 million turkeys raised in 1929 to 272 million turkeys raised in 2007 (Chart 4). Total pounds of turkey produced grew from 4.15 billion pounds in 1986 to 7.42 billion pounds in 2006 (Charts 5 & 7). U.S. value of production for turkeys increased from 1.95 billion dollars in 1986 to 3.55 billion dollars in 2006, an 82 percent increase over the time period (Chart 5).

Turkey growers Marketing Year Average (MYA) price received has fluctuated between 34.8 cents per pound and 47.9 cents per pound over the past twenty years (Chart 7). However, the MYA price received in 1986 was 47.1 cents per pound compared with the MYA price received in 2006 of 47.9 cents per pound, which equates to a 2 percent increase over the twenty year period (Chart 7). The U.S. monthly prices received by turkey growers fluctuated between 32.7 cents per pound and 66.3 cents per pound. The November 2006 price received by farmers was 66.3 cents pe pound compared with the November 2003 price of 41.2 cents per pound, showing a 61 percent increase over the time period (Chart 8). Conversely, the January 2006 price received by farmers of 40.3 cents per pound is 15 percent above the January 2003 price per pound of 35.1 cents per pound. Monthly prices received by turkey growers during recent years appear to be more volatile now than in the past.

United States turkey facilities under federal inspection slaughtered at a rate between 18 and 25 million turkeys per month over the period of 2003 to present (Chart 8). Young turkeys slaughtered under federal inspection in Arkansas, Minnesota, and Missouri, for the period of 2003 to present, depict some market fluctuation from month-to-month (Chart 9). However, in those States, a relatively consistent number of young turkeys have been slaughtered from year-to-year.

Minnesota raised the largest number of turkeys in 2006, at 45.0 million head. The next four largest States were: North Carolina, 37.5 million head; Arkansas, 30.0 million head; Virginia, 21.5 million head; and Missouri, 20.0 million head (Chart 10). The top five States based on pounds produced in 2006 were: Minnesota, 1.21 billion pounds; North Carolina, 1.13 billion pounds; Missouri, 634 million pounds; Arkansas, 585 million pounds; and Virginia, 555 million pounds (Chart 11). The top five States based on value of production in 2006 were: Minnesota, $569 million; North Carolina, $518 million; Missouri, $317 million; Arkansas, $304 million; and Virginia, $261 million (Chart 12).

Survey Procedures and Methodology

Survey Procedures

Hatchery: Data for turkey hatchery estimates are collected from all known turkey hatcheries. Individual NASS field offices maintain a list of all known turkey hatcheries and use known sources of hatcheries to update their lists. All known turkey hatcheries are mailed a questionnaire as close to the first of the month as possible and given adequate time to respond via mail, fax, or over the internet. Those that do not respond are contacted by phone. Care is exercised to ensure all hatcheries are accounted for in the estimate.

Raised: Survey data for the estimates of turkeys raised are collected from a list of contractors and independent growers. States use all known sources of producer names to ensure the list is as complete as possible. All known turkey growers are mailed a questionnaire and given adequate time to respond via mail, fax, or over the internet. Turkey producers who do not respond are then contacted either by telephone or in person. Diligent effort is made to ensure all operations are accounted for in the estimate.

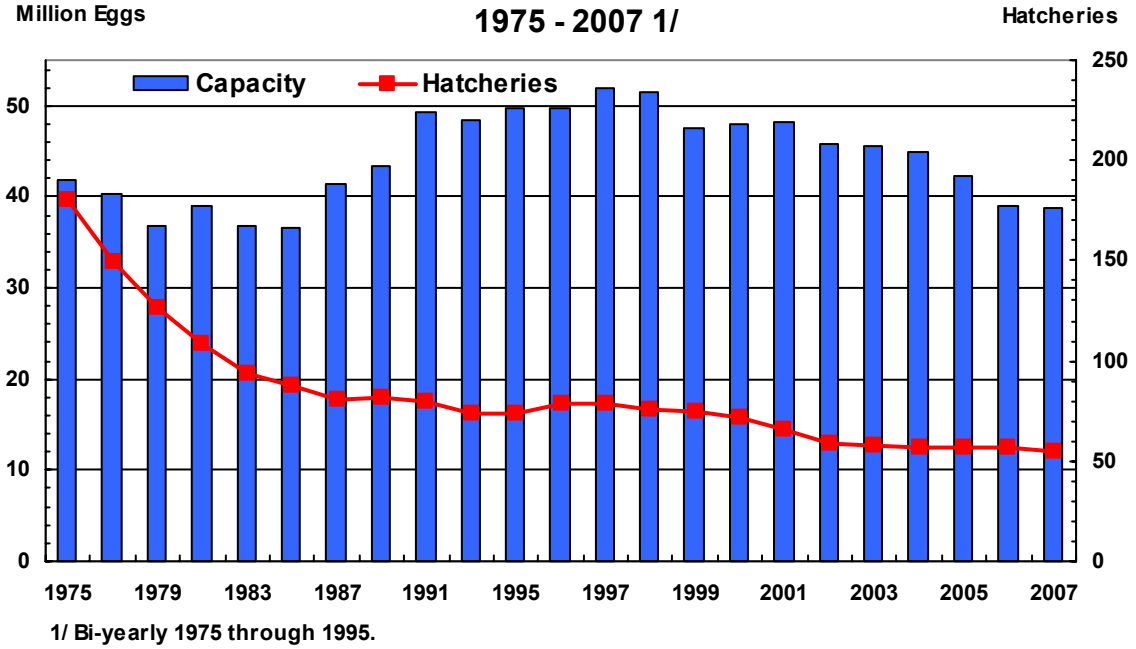
Estimating Procedures

Hatchery: Sound statistical methodology is employed to derive the estimates from reported data. All data are analyzed for unusual values. Data from each operation are compared to their own past operating profile and to trends from similar operations. Data for missing operations are estimated based on similar operations or historical data. NASS field offices prepare these estimates by using a combination of survey indications and historic trends. Individual State estimates are reviewed by the Agricultural Statistics Board for reasonableness. Individual hatchery data are summed to State, regional, and U.S. totals. Only regional and U.S. level estimates are published due to the limited number of hatcheries involved.

Raised: Estimates of turkeys raised include young turkeys intended for meat production, as well as breeder turkeys which reached maturity during the calendar year. These estimates exclude turkeys lost to disease or those destroyed. Placements of turkey poults from the Monthly Turkey Hatchery Survey provide the basis for the estimates published in August. Final estimates, published in January, use indications from the Turkey Inquiry Survey, updated hatchery data, and monthly slaughter totals.

Chart 1

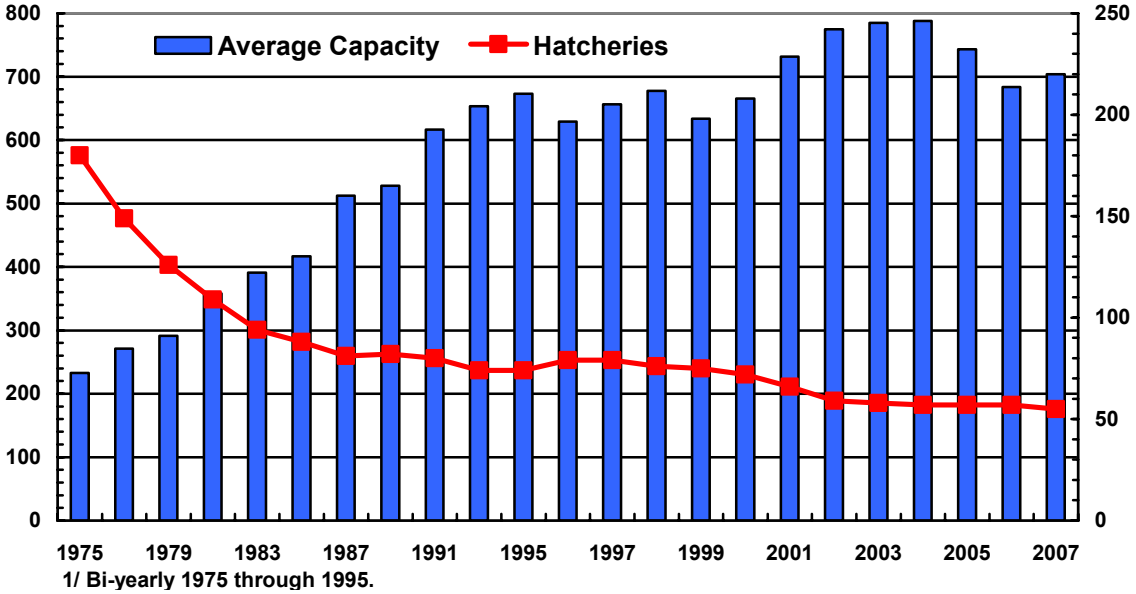
Incubator Capacity and Number of Hatcheries 1975 - 2007 1/



1/ Bi-yearly 1975 through 1995.

Chart 2

Average Incubator Capacity and Number of Hatcheries 1975 - 2007 1/



1/ Bi-yearly 1975 through 1995.

Chart 3

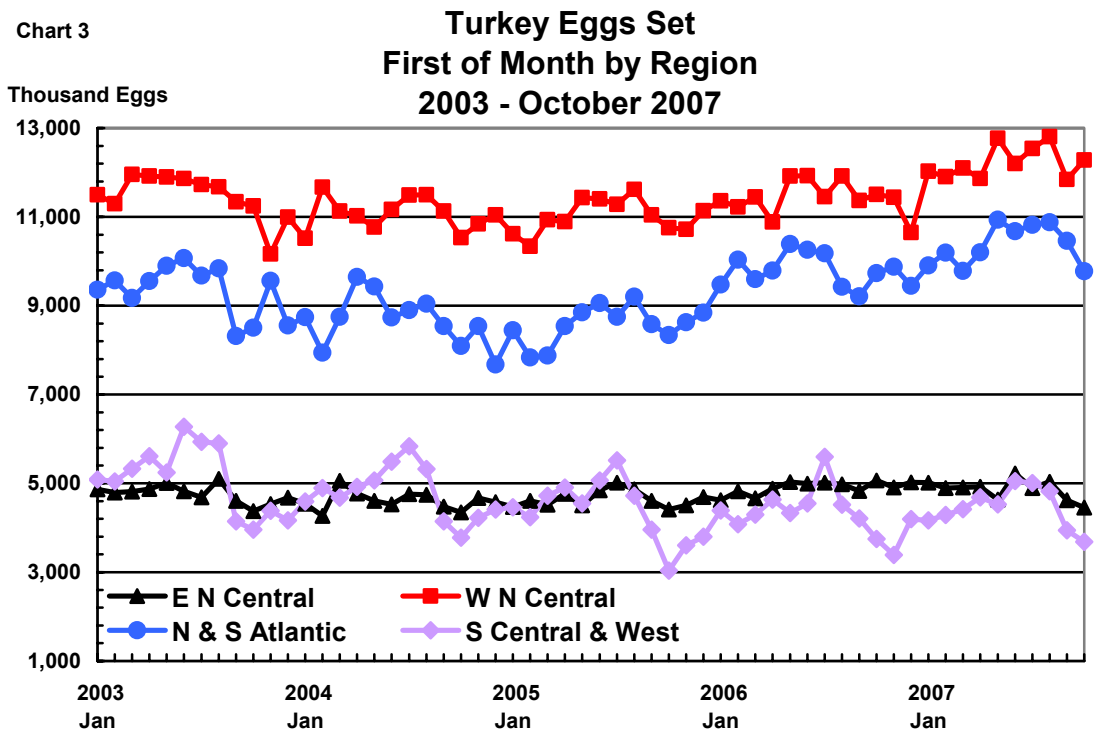


Chart 4

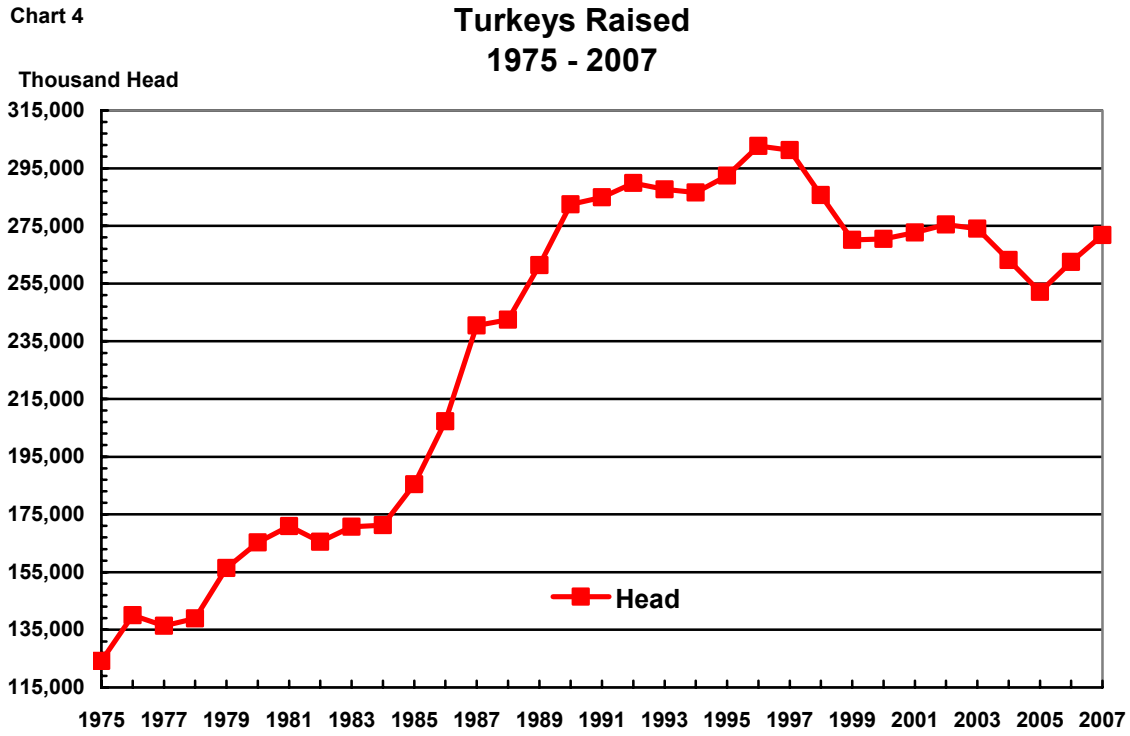


Chart 5

Pounds Produced and Value of Production 1986 - 2006

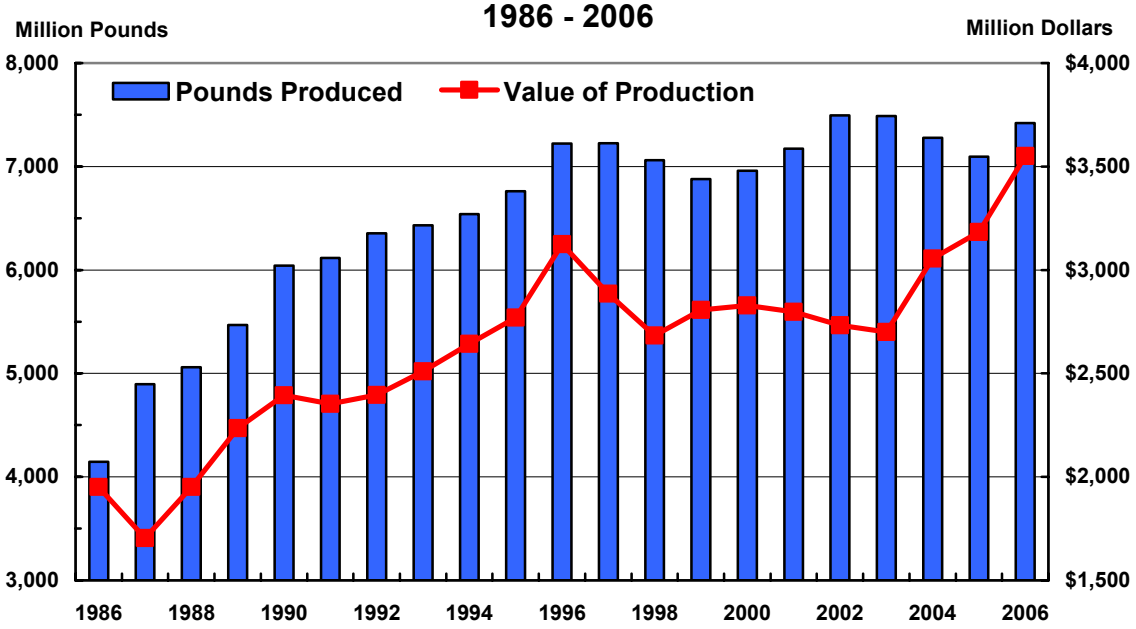


Chart 6

Number Slaughtered and Average Live Weight 1986 - 2006

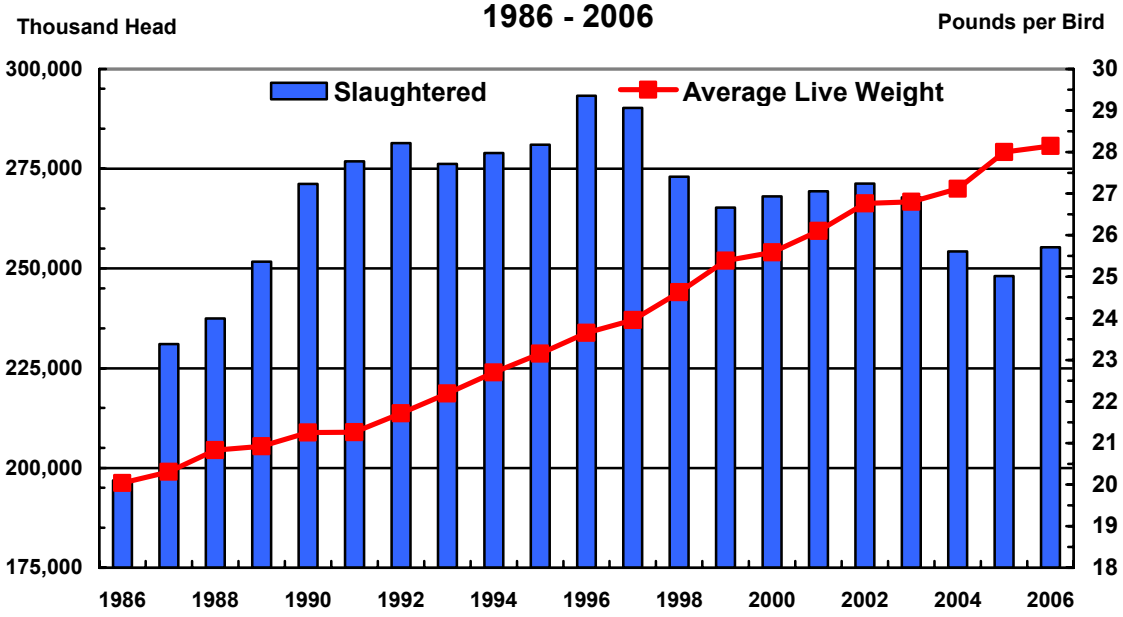


Chart 7

U.S. MYA Price and Pounds Produced 1986 - 2006

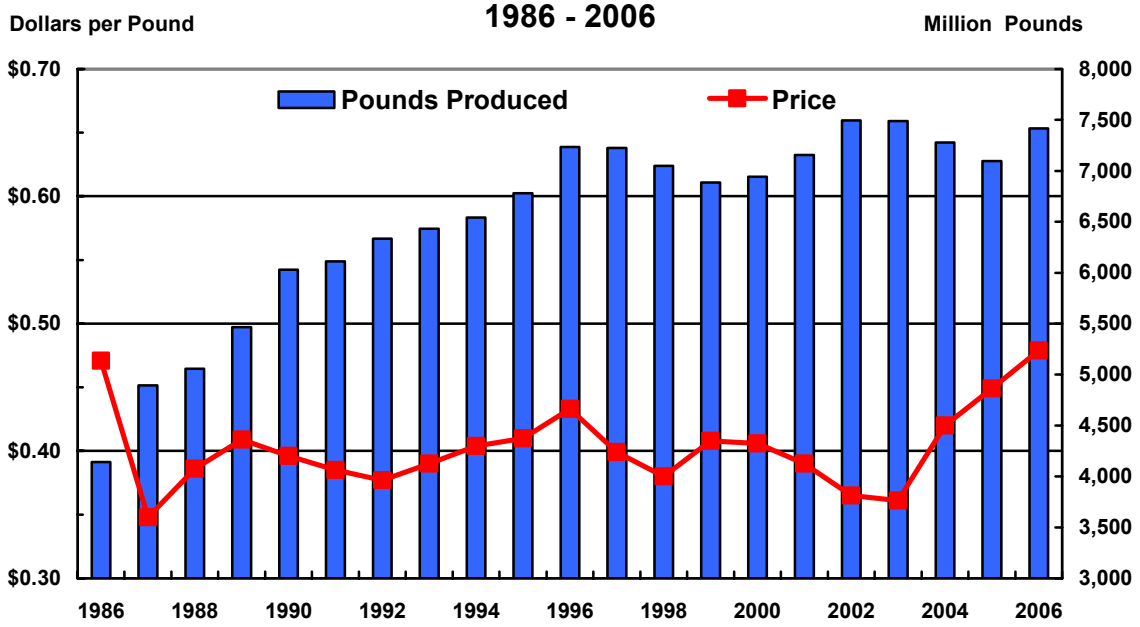


Chart 8

U.S. Monthly Price and Turkeys Slaughtered by Month 2003 - October 2007

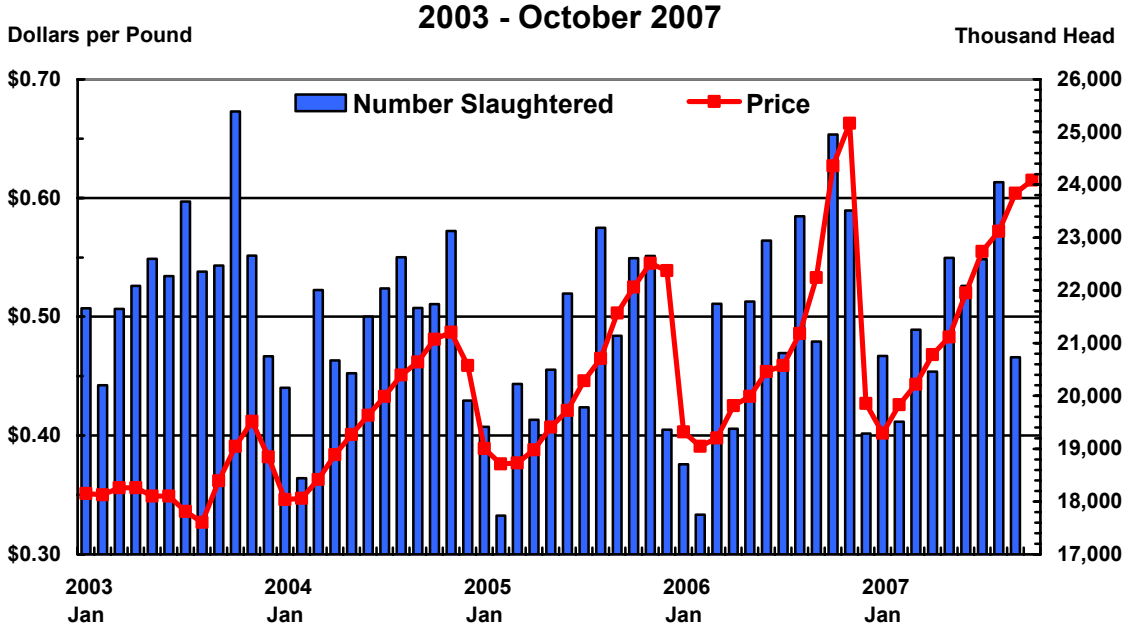


Chart 9

Young Turkeys Slaughtered by Month
3 Selected States
2003 - September 2007

Thousand Head

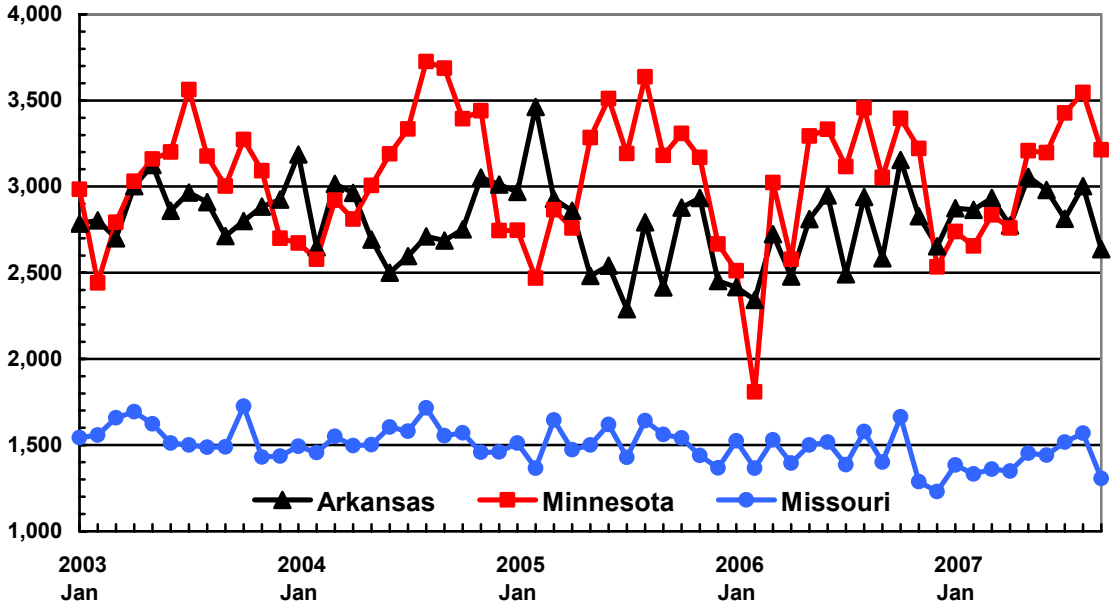
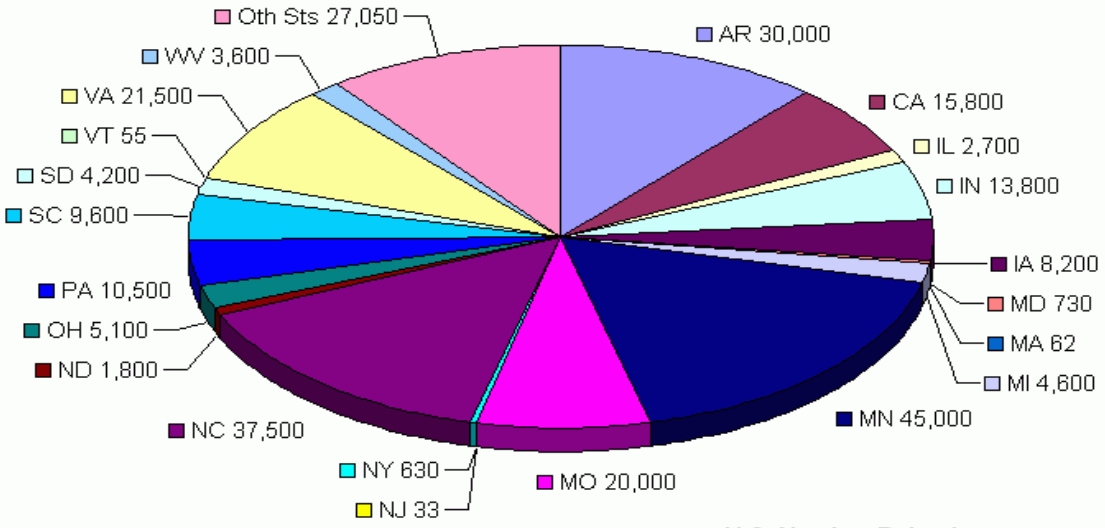


Chart 10

Turkeys Raised by State
2006 1/



1/ Thousand head.

U.S. Number Raised
262,460

Chart 11

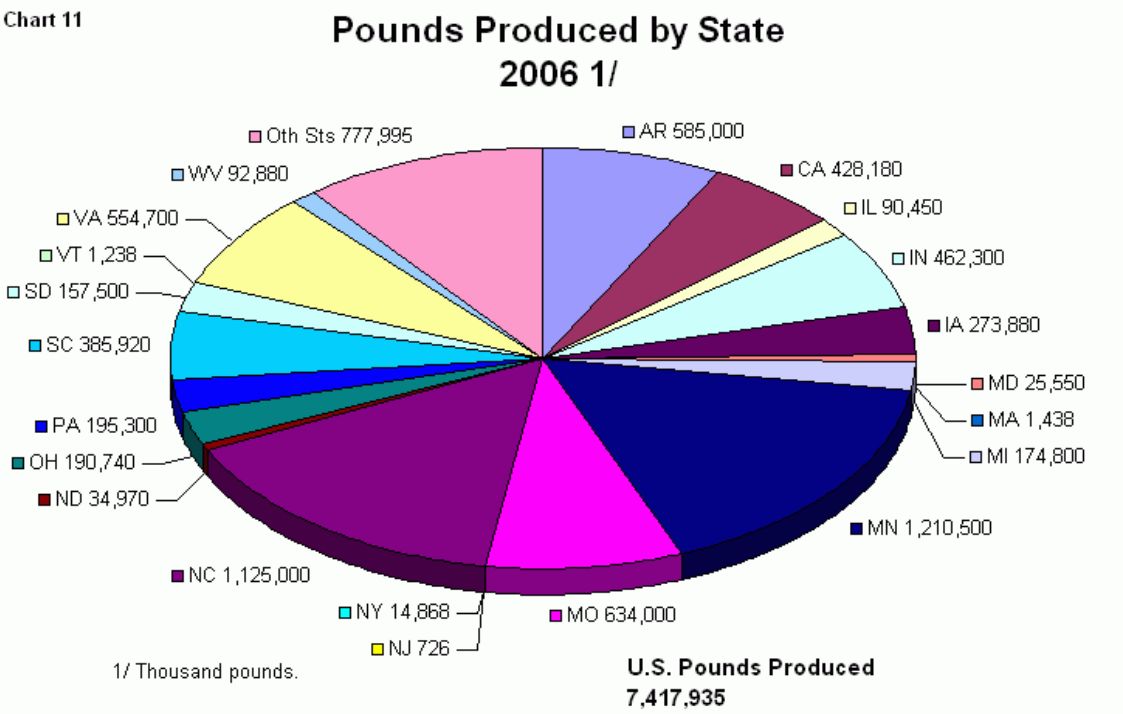
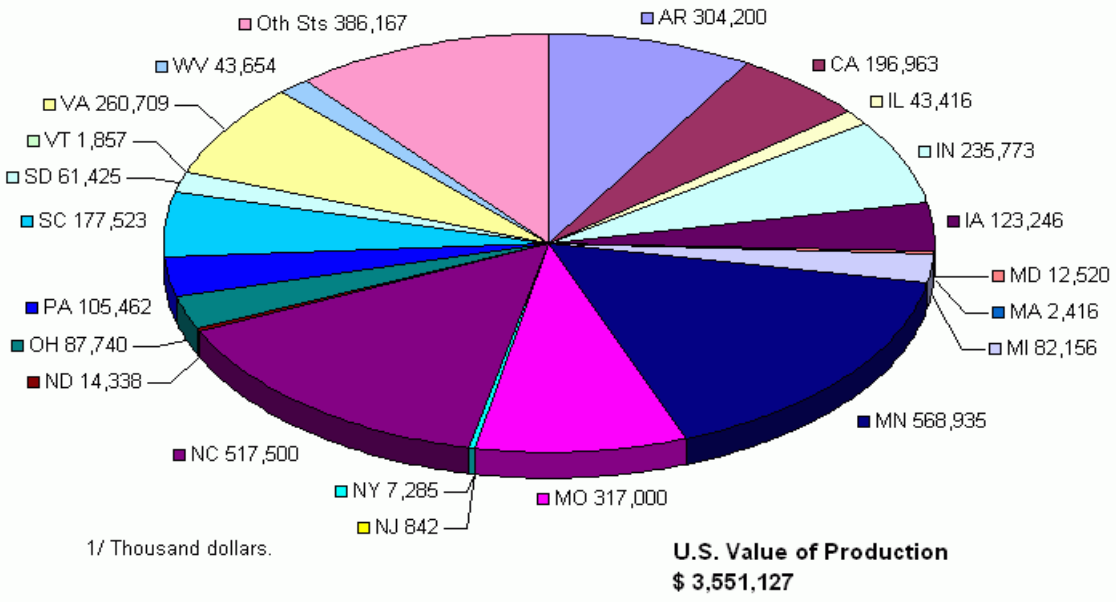


Chart 12



Terms and Definitions

Breeder flock: Includes breeder hens and toms over five months of age held for fertilized egg production.

Breeder hen: A mature hen turkey over four months of age which has been held for fertile egg production. During a 25-week laying cycle a hen normally lays 80 eggs. At the end of the cycle, the hen will either be slaughtered or force molted and returned to the breeder flock.

Brooder barn: A ventilated and temperature controlled building used for raising poults to an age of 8 weeks.

Death loss: Turkeys that die due to disease, natural causes, or catastrophe before reaching market weight.

Eggs set: Fertilized eggs placed in an incubator for hatching. Poults take 28 days to hatch.

Eggs in incubators: Includes all eggs in incubation at a point in time.

Finishing barn: A building used for growing turkeys to slaughter weight. Mature poults are transferred to finishing barns from brooder barns at 3 - 8 weeks.

Hatchery capacity: Capacity of incubators and hatchers as rated by the manufacturer unless modifications have been made.

Hatcher: Similar to an incubator except the temperature is lowered and the humidity is raised. Eggs are transferred from the incubator racks to hatching trays on the 25th or 26th day of incubation.

Incubator: Heated enclosure where fertilized eggs are placed until they hatch or are moved to a hatcher.

Marketing Year Average (MYA): An average price received by turkey growers, calculated using the monthly prices received by turkey growers.

Molt: Resting a hen for a second egg laying cycle during which the hen stops laying and sheds its feathers. It takes 13 to 15 weeks to molt a turkey hen.

Poult: A young turkey, usually less than 8 weeks of age.

Poults hatched: The live poults taken from incubators, including poults later graded out and destroyed.

Poults placed: Live poults placed on farms in all States to be raised for slaughter or for replacements to breeding flocks.

Spent hen: A female turkey which has completed one or more egg production cycles of about 25 weeks. The hen usually will be removed from the laying flock and destroyed or slaughtered.

Information Contacts

Listed below are the commodity specialists in the Livestock Branch of the National Agricultural Statistics Service to contact for additional information.

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- Fleming Gibson - Egg Products, Poultry Slaughter, Catfish Processing, Mink . (202) 690-3237
- Sharyn Lavender - Broiler Hatchery, Chicken Hatchery, Honey ..... (202) 720-3244
- Kim Linonis - Layers, Eggs ..... (202) 690-8632
- Toby Paterson - Catfish Production, Trout Production, Census of Aquaculture, Turkey Hatchery, Turkeys Raised ..... (202) 720-0585

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