

Viewpoint

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Taking a look at the history of the NPIP

By Andrew R. Rhorer

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CONYERS, Ga. — The National Poultry Improvement Plan (NPIP) was started in the early



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1930's to coordinate state programs aimed at the elimination of pullorum disease from commercial poultry. Pullorum is a bacterial disease of poultry that is transmitted from a hen to her chicks via the egg. By testing adult birds and eliminating disease carriers from the breeding flock, commercial chicken and turkey producers have eliminated this costly disease.

Probably the greatest single factor which limited the early expansion of the poultry industry was the disease known as Bacillary White Diarrhea (BWD), caused by *Salmonella pullorum*. This disease, later called pullorum disease, was unbridled in poultry, and could cause upwards of 80 percent mortality in baby poultry. Poultrymen recognized that problem but were unable to combat it until the causative organism was discovered by Dr. Leo Rettger in 1899 and a diagnostic blood test was developed by Dr. F.S. Jones in 1913.

Since pullorum disease was found to be egg-transmitted, following these two discoveries, individual poultrymen started to test their birds for pullorum disease and eliminate the reactors from the breeding flocks. But the disease was so widespread; they soon realized that if they were to be successful, a widespread, coordinated effort would be necessary. A number of states started state-wide pullorum testing programs in the early 1920's; and before long, a few breeding flocks were being identified as free of pullorum.

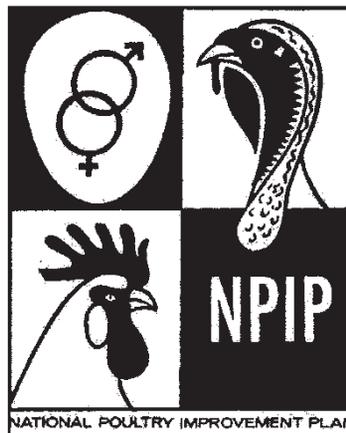
About this same time some of the early poultrymen started to

exert a conscientious effort to improve the genetic production capabilities of their stock. Even though a thorough understanding of genetics was lacking, considerable improvement was made through trapnesting programs which identified superior individual birds. This would be expanded later to include individual male matings and family selection as tools to improve production potential.

In the early 1930's members of the poultry breeding and hatching industries, through the International Baby Chick Association (IBCA), started to recognize the advantage of a national program for the improvement of poultry. It was envisioned that such a program would utilize the good points of the individual state breeding and disease control programs and develop standard terminology which would be equally applicable in all areas of the country.

Finally, after a few years, several IBCA conventions, numerous committee meetings and countless hours of deliberations, the provisions for the first nationwide poultry improvement program were finalized in 1934. This program, which became operational July 1, 1935, was named the National Poultry Improvement Plan and was subsequently adopted by 47 states. The National Turkey Improvement Plan (NTIP) was activated on Sept. 25, 1943. On Dec. 3, 1971, the two plans were combined under one title, "the NPIP," with separate provisions applicable to the different types of poultry. These states plus Nevada, which was added in 1994, became responsible for the blood testing and subsequent classification for various disease control programs of more than 3 billion breeding chickens and 250 million breeding turkeys during the 70 years since the founding of the NPIP.

In the late 1940's, the Great Atlantic and Pacific Tea Co., better known as the A&P Grocery Co., suggested that poultry breeders concentrate on meat yield rather



than pure breed characteristics in chickens. This development may have been the first step in the eventual elimination of the breeding component of the NPIP. It triggered the establishment of the "Chicken of Tomorrow Contest," which was established to develop a higher yielding meat-type chicken. The 1951 Chicken of Tomorrow Contest was won by Charles Vantress with a Hybrid Cross: Cornish X New Hampshire. Breeders such as Cobb and Arbor Acres made advances with a similar cross with white feathered birds. This was the beginning of the modern broiler industry. The commercial went in a different direction in terms of genetics, thus the NPIP breeding programs fell from favor.

The next modification point in the history of the NPIP was the establishment of the Meat and Poultry Inspection Act in 1957. The condemnations at the processing plant due to airsacculitis were extreme in some cases. The losses were due in part to Chronic Respiratory Disease in chickens and plueropneumonia-like organism (PPLO) in turkeys. *Mycoplasma gallisepticum* (MG) was determined to be the causative organism in both of these conditions. MG was found to be egg-transmitted like pullorum disease and was added to the NPIP as a plan disease for chickens in 1965 and for turkeys in 1966.

Since *Mycoplasma synoviae*

(MS), which can cause Infectious Synovitis in turkeys and chickens, was found to be egg-transmitted, it was added to the NPIP as a plan disease in 1974. In 1983, *Mycoplasma meleagridis* (MM) was added to the NPIP as a plan disease for turkey breeding flocks.

The next modification point in the history of the NPIP was in the late 1980's when *Salmonella enteritidis* (SE) surfaced as a human health problem particularly in the Northeastern quadrant of the country. Research indicated that this serotype of salmonella was egg-transmitted like pullorum disease. It too was a natural for the NPIP and thus the establishment in the 1989 of the current SE programs for egg-and meat-type breeding chickens in the NPIP.

The next modification point in the history of the NPIP was in the early 1990's with the development of the global marketplace. The poultry industry began to export large quantities

of poultry genetic stock and poultry meat.

The major trading partners wanted assurances that the poultry and poultry products originated from breeding flocks free of avian influenza. Thus the establishment of the "U.S. Avian Influenza Clean" program for breeding chickens in 1998.

The latest modification point in the history of the NPIP took place in July 2004, in San Francisco, Calif., with the addition of commercial production poultry (table-egg layers, broilers and meat-turkeys) as a new part of the NPIP. The delegates of the 37th biennial conference of the NPIP approved a new H5/H7 Low Pathogenic Avian Influenza (LPAI) Monitored classification for table-egg layers, broilers and meat-turkeys.

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