Pa. poultry

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required about three man-hours of labor per day for 4-5,000 broilers during the critical first two or three week brooding period, with feeding and watering accounting for about two-thirds of the requirement.

Broilers typically reached consumers as fresh-killed, ice-packed, ready-to-cook whole birds. Cut-up chicken had not as yet been developed nor had any other type of further processed chicken product..

Turkey production was similar to broiler production. Most production units were small and geared to production of turkeys for the Thanksgiving and Christmas markets. Most of the birds were sold fresh dressed and unfrozen direct to consumers for the holiday season. Most birds were brooded in confinement for the first 8-10 weeks and then grown on range. Feeding and watering required hand labor, as did slaughtering, which was usually done by the grower in small plants just prior to the holidays. Since production and processing units were small, it was not possible to take advantage of economies of size and thus reduce costs. This was true of broiler and egg production also, although processing facilities for eggs and broilers were larger and could effect at least some economies of size by assembling production in a central location from many small production units.

During the 1950s changes began occurring rapidly in poultry and egg production and marketing. New forms of business organization were developed which concentrated decision making in the hands of fewer people; contract production insulated the grower from risks of price fluctuations; mechanized technology reduced labor requirements in all phases of production and changed poultry production from a labor intensive to a capital intensive enterprise; a nationwide network of excellent highways enabled producers far from the northeastern U.S. to compete effectively for northeastern markets with high quality products; differential freight rates for grains, coupled with rail transportation innovations in the southeast U.S., favored southern producing areas; and new producers were starting production with new, up-to-date facilities while Pennsylvania's facilities were old and inefficient. Faced with increasing competition for markets, Pennsylvania's egg and turkey production began to decline. Egg production peaked in 1955 and began a steady decline which did not bottom out until 1976. Turkey production declined to a low point in 1962 and then started a slow but steady increase which has continued up to the present. Only broiler production continued a steady growth for the entire 30-year period.

By the mid-1970s circumstances were again changing and the poultry industry in Pennsylvania gained new confidence in its ability to compete with other production areas. It was located in a market deficit with respect to eggs and poultry meat. In fact, the area was more deficit than it had been in 1955. By 1975, only 55 percent of the Middle Atlantic area's egg requirements were being produced within the region; and only 15 percent of its turkeys and 14 percent of its young chickens were produced locally. Twenty years earlier almost three-fourths of its eggs and one-third of its young chickens and turkeys were produced within the region.

Being located in a large deficit area took on added importance after the oil embargo in 1973 and OPEC oil price policies resulted in increased energy costs. Larger grain production, especially corn, within the state lowered dependence on outside sources with their rising freight costs. New facilities overcame climatic disadvantages and greatly increased productivity, while integrated forms of business organization encouraged larger production units with attendant economies of size and shielded many producers from price fluctuations through contract production. By 1978, egg production had reversed its long term downtrend and reached its highest level ever (3.6 billion eggs), and this level was reached with about 30 percent fewer layers than in 1955. Turkey production has more than doubled since 1950 (to about 4,000,000 birds) and broiler production has increased about 600 percent (about 90,000,000 birds). Today the industry is optimistic and in an expansive mood, with additional new production facilities under construction and more in the planning stage.

In 1979, the poultry industry in Pennsylvania differs considerably from that of 30 years earlier. If a Rip Van Winkle had gone to sleep in the early 1950s and awoke in 1979, he would have difficulty in recognizing the industry.

About the only thing that hasn't changed much is the location of production, which is still concentrated in the southeast corner of the state (70-80 percent of the output) with small pockets of production in the southwest and northwest corners.

But the small farm flocks are gone. There still are egg operations that are part of a general farming enterprise, but instead of 400 layers the flock is apt to number 10,000 or more layers. And specialized commercial egg operations, which 30 years ago were a rarity, are now commonplace and consist of 30,000 layers or more. Typical laying houses are now designed to accommodate 30,000 birds or more. A number of flocks contain a quarter of a million birds and operations containing a million birds are in the process of development. Some enterprises with 100,000 or more layers mill their own feed and market their product in addition to producing it. Laying houses are environmentally controlled with mechanized feeding, watering, and egg collecting capabilities. With mechanization, annual labor requirements per layer have been reduced to about six minutes. Layers are confined in cages with two or more in a cage; these lay white eggs and production of brown eggs has virtually disappeared. Producers are paid on a grade yield basis as eggs are cleaned, graded, sized, and cartoned at country points by high speed equipment that sizes and packages eggs mechanically. A lot of eggs today move from the hen to the consumer without being touched by human hands. Marketing channels have been shortened, with processors delivering to retail warehouses or directly to retail stores. Today it is possible for an egg to be in the consumer's hands only 24 hours after it was laid.

Many enterprises are integrated through ownership. In this type of organization, egg production, feed milling, egg processing, and marketing facilities are all owned by an individual or firm and all decisions are made by the owner. Still other enterprises are integrated through contracts. In contract production, the producer furnishes housing, equipment, labor, and perhaps fuel, while the contractor, usually a processor or feed miller, furnishes birds, feed, and all other inputs. Decisions are made by the contractor. Producers are paid on some guaranteed unit bases. Shielded from product price fluctuations and guaranteed a market outlet, producers can more easily obtain financing for construction of facilities and concentrate on production.

However, there are still many independent egg producers who furnish all their own inputs, make their own decisions, and sell to dealer processors on a grade yield basis at open market prices. In fact, a larger share of the egg output is independently controlled in Pennsylvania than in any other state. Independent operations are similar in size to contract operations, use the same technology, and are as efficient, if not more so.

Broiler production is now carried on almost 100 percent under contractual arrangements. Growers furnish buildings, equipment, and labor and are paid by the contractor on some guaranteed basis. Houses are environmentally controlled and feeding, watering, and ventilating are mechanically performed. Houses typically contain 30,000 or more birds and are used the year around, with five or more broods reared per year on litter floors. The parttime operation of one or two broods a year is a thing of the past. In marketing, most broilers are sold as fresh-killed, ready-to-cook, both whole and cut-up, but increasing numbers are sold as further processed with about 8 percent being presently used in this form.

Turkey production is also no longer a side-line enterprise of small flocks grown principally for the fresh-dressed holiday market, and no longer are turkeys grown on range. Most of today's turkeys are reared in confinement. Production is now carried on the year around as many producers rear multiple broods per year. Production units are large, usually 10,000 birds or more with some operations in the hundreds of thousands. The majority of the state's birds are produced by owner-integrated operations which manufacture their own feed and do their own processing. The remainder are grown on contract or by independent producers in operations that are considerably smaller than owner-integrated operations. Feeding, watering, and other chores are performed with the use of mechanized equipment that results in high labor productivity. Whole birds for family consumption are frozen and sold the year around, with sales concentrated during the holiday season. But today about half of the turkeys are further processed into products such as turkey rolls, turkey

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