Trends in Turkey Marketing

efficient procedures in processing for improvement of competitive position of state's turkey industry

John C. Abbott

California produces one-sixth of the total United States supply of turkeys—twice the amount produced at the end of World War II.

A high level of employment and consumer income, combined with restricted marketings of beef in the years following the war, provided an exceptionally favorable environment for an increase in the consumption of turkey meat. However, lower prices since 1950 have raised doubts as to whether the California turkey industry can be maintained on its present expanded scale.

The possibility of local consumers taking up the whole supply of California turkeys is remote, and therefore, the continuance of the industry at its present level of output depends on its ability to sell turkeys profitably in other parts of the United States.

On the New York market, far-western turkeys have built up substantial prestige. A high proportion fall into the top quality categories as a result of consistent grading and inspection before despatch. California birds are regularly quoted at the highest prices, yet net returns to the shipper are reduced by icing and rail charges that are considerably in excess of those borne by birds originating in major competing areas.

Significant, therefore, is the tendency for areas situated closer to the East Coast cities to claim a higher proportion of their market.

In the face of threatened over-production, output in California was cut down in 1953, while that of Minnesota and the West North Central Region continued to expand. Thus it is cumulatively evident that maintenance of the California industry's position will hinge almost entirely upon superior efficiency in all phases of production and marketing.

The outstanding feature of the technical trend in the processing of turkeys is the close interrelationship of merchandising advantage with economy in cost.

Formerly, poultry processing plants mainly turned out New York dressed birds—plucked and bled but with head, feet, and entrails still intact. In contrast, more turkeys are now sold on a ready-to-cook basis.

Labor costs involved in dressing and eviscerating turkeys may be cut substantially by sub-scalding—to loosen feathers for easier removal—at 138–140° F—and carrying birds to the ready-to-cook stage in the same plant.

Until durable, transparent plastic coverings—which shrink to fit the carcass and withstand the passage of moisture-vapor—became available, sub-scalding remained impracticable because the outer layer of skin is completely removed and, on exposure to the air, the underlying skin quickly darkens and turns brown. The initial white finish may be retained only so long as the carcass is protected from dehydration.

Semi-scalding—at temperatures up to 130°F—leaves considerable hand work after the birds pass through mechanical pickers, and scalding at 160–180°F damages the skin and keeping qualities of the carcass.

Current Trends

The advantages of sub-scalding lie in the possibility of dispensing with the bulk of the supplementary hand picking and finishing labor, and in marketing birds at an earlier age without pin feathers. Quick freezing of sub-scalded, plastic-wrapped birds results in a neat product with a bright finish of great appeal. However, the costs of packaging and freezing are sharply in excess of those customary in the New York dressed trade and consequently cancel out the saving in labor. Such processing, nevertheless, broadens the market for the product and conforms to contemporary trends in merchandising.

Evisceration on the production line at the processing plant is more efficient than leaving that operation to retail butchers. If the butcher takes three minutes to eviscerate one dressed turkey, the preparation of the bird for the consumer costs 13¢ more—at current wage rates—than if dressing and evisceration were performed at a single large plant.

In terms of 1953 values, the cost of processing may be reduced 20¢ per turkey, or approximately 1¢ per pound, by the use of sub-scald instead of semi-scald water temperature. At the same time, closer attention to the timing of operations up to and including quick freezing is needed if the sub-scalded birds are to maintain quality and color.

Plants handling 600 turkeys or more per hour may reduce costs 22% by adopting sub-scalding techniques; the smaller operations, 18%. The advantages of small plants in obtaining workers at lower wage rates will decline in significance with the labor economies of the sub-scald system.

Smaller commercial plants handling some 300 birds per hour fail to obtain the full potential advantages of specialization from the division of labor associated with the conveyor system employed by the larger plants.

Farm processors operating at 10–20¢ per turkey above the commercial cost level must sell their birds at retail prices if their outlay is to be repaid.

An operating season of 25 capacity days for the farm plant and 80 days for the commercial plants is required before they pass out of the range of sharply increasing economies. Over very short seasons, the simple farm plant is the most efficient. Between 60 and 80 days, the rate of increase in cost saving is slower than over the shorter period. The advantages of extending the season beyond 80 capacity working days are less substantial.

Packaging materials and ice—for slush cooling—have become major cost items when evisceration is carried out at the processing plants. Purchases of these supplies amount to over 50% of

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total direct costs in eviscerating plants.

Weight losses in processing have been substantially reduced with the change over from dry air cooling to ice slush chilling and packaging in a moisture-vapor proof container. Dressing and evisceration weight losses now range from 23% down to 15% of the original liveweight. A differential of this order would amount to 48¢ per turkey at 1953 prices, 80% of total direct processing costs in the larger plants.

General adoption of the most advantageous procedures—sub-scalding, evisceration in processing plant, slush cooling, conveyor system and auxiliary equipment, and an economic operating season—should result in an all-round reduction in processing expenses and margins, and an improvement in the competitive position of the California turkey industry.

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