Chapter XII

SUMMARY AND SUGGESTIONS

Indian diet has since long remained chronically protein deficient. Broilers which have highest feed conversion ratio from plant proteins to animal proteins can help enhance meat production significantly. Further broiler production does not encroach upon scarce land resources; rather a multiple number of crops can be obtained from a small piece of land. So the Government of India, realising the importance of this industry imported the parent stock of broiler in 1959. However, the increasing number of fowl posed a continuous threat to broiler industry being a cheap but close substitute for broiler meat. In view of this, the Government established 15 small and 2 large processing plants in the country – one large was established with the Poultry Project Chandigarh during 1968. The Plant provided broiler chicks at concessional rate to the farmers and also helped the farmers to obtain required inputs on easy terms. Due to these incentives, the farmers were keen to adopt broilers as a business proposition.
But soon after this programme was started, some of the broiler farms reverted back to the layers, because broilers require quick disposal immediately after reaching the age of 8 weeks. But preservation and processing arrangements were inadequate in the state. So whenever a large number of broilers was put into the market prices would be depressed. As such overall performance of this industry was not as good as envisaged. This study was, therefore, undertaken to examine the factors which adversely affected different segments of broiler industry. The study being of a pioneering nature in this country had to be broad-based so as to examine the problems right from production stage but to focus more intensively on marketing problems. The study was mainly confined to Chandigarh and Ludhiana areas during the years 1970-71 to 1972-73. The major findings of this study were as under:

The farmers at Chandigarh obtained broiler's chicks from two sources i.e. commercial hatcheries and on contract from the Project. It was found that amongst the available broiler types, performance of the commercial broilers was found to be most efficient. Project broilers being a dual purpose breed gained poor live weight. In Ludhiana area, the performance of broilers was a mixed one-chicks from local hatcheries turned out to be cockrels. However, those purchased from commercial hatcheries were quite good. Consequently, at 8 weeks age feed requirements (average 1970-71 to 1972-73) for Commercial, Project and Ludhiana
broilers were found to 2.92, 3.19 and 3.20 kgs. respectively. At 12 weeks age, the corresponding figures were 3.94, 4.47 and 4.16 kgs. respectively. The conversion ratio of commercial broilers improved to 2.84 during 1972-73 compared with 3.04 during 1970-71. Corresponding figures for Ludhiana broilers were 3.26 and 3.23 respectively. However, for the Project broilers, these were 3.22 and 3.25 respectively. Thus commercial broilers were most economical ones for the farmers. Considering net returns over total cost only the commercial broilers turned out to be profitable from 8th to 12th weeks. Project broilers were profitable only during 8th and 9th weeks while Ludhiana broilers gave net negative returns even over variable costs. This happened because in Ludhiana areas substandard hatcheries provided cockrel chicks to about 18 per cent of the sample farmers. Thus, it was planned to segregate these farmers from the total sample who purchased commercial chicks from the commercial hatcheries.

Costs for these (41%) farmers were found to be positive from 8th to 12th week for variable and total costs. However, 2 paisa negative returns were found over total costs during 12th week.

Over-all performance for the broiler under selected situations was not found upto the mark. This was due to the defective feed available to the farmers from the markets. This was confirmed by an experiment conducted by the
Punjab Agricultural University, Ludhiana, on commercial broilers but fed on quality feed prepared by itself. The results indicated that weight gained by the commercial broilers was higher by 65 per cent at 8 weeks and by 91 per cent at 10 weeks age with the quality feed as compared with their performance on the feed available from the market.

On an average, per poultry farm number of broiler reared was 3202 at Chandigarh and 2039 in Ludhiana area. Marketable surplus for Commercial, Project and Ludhiana broilers was 90.3, 87.2 and 86.2% respectively. Low marketable surplus in Ludhiana area was the result of greater mortality during growth and transportation. Sales pattern of broilers was found to be most efficient in case of commercial broilers followed by Ludhiana and Project broilers. At 10 weeks age cumulative per cent of sales for them was 74, 67 and 62 per cent respectively. Further, larger farms sold their broilers in shorter periods than the smaller ones. Surprisingly, in case of broilers reared at the Project Farm, some of them were not slaughtered up till 15th weeks' age. From the above, it can be safely concluded that production and disposal of commercial broiler was efficient than the other two situations.

For assembling the birds, the farmers themselves preferred to take them to the destination. In case of poultry project Chandigarh flat rate of transportation upto 40 kilometers prevented the farmers to utilize the project transport facilities, because costs through private modes were
much lower up to 30 kilometers. For transportation of the birds, the farmers faced great difficulties. The farmers besides facing heavy mortality also had to wait for long hours as there was no regular transport service for poultry at all. It was found that for consignments to distant markets transport mortality by truck, rail and bus was 3.85 4.01 and 4.55 per cent respectively. The transport mortality over short distances in case of Poultry Project Chandigarh which has specially designed trucks was found to be only 0.25 per cent compared with 1.56 per cent at Ludhiana where birds were transported in a congested manner.

Except the Poultry Processing Plants the grade standards for poultry are not implemented at all in the public transactions. This leads to unwholesome birds being passed on to the consumers. Besides, farmers get low returns. An experiment conducted in Ludhiana market indicated that the graded birds fetched a premium of Rupees 0.22 and 0.17 respectively for two different lots. However, after purchasing from the farmers the intermediaries sold the birds according to the grade of the bird to maximise their return, while they paid a flat rate to the farmers.

For sale of birds to different buying agencies the contracted Project broilers were returned to the extent of 72.50 per cent to the project against 75 per cent. Generally, small categories of the farmers did not return the birds in full because market prices were higher. This compelled the
project from 1974 onward to keep rupee one as security for those farmers who would enter into the contract. For commercial broilers hotels were the important agency purchasing 45.1 per cent followed by meat retailer, 14.9 per cent, itinerant merchant 14.0 per cent, hawker, 11.60 per cent and distant market, 9.7 per cent. In case of Ludhiana major channel was sale through wholesale market followed by itinerant merchant.

Net producer's share at Chandigarh was found 68.14 per cent and at Ludhiana 63.17 per cent. Costs involved in transportation and mortality were 4.03 in case of Chandigarh and 5.90 in case of Ludhiana. Incidental and marketing costs were higher by 1.08 per cent in case of Ludhiana. It was possible because at Ludhiana supplies of broilers remained short. However, it may be mentioned that absolute prices received at Ludhiana were higher than Chandigarh but excessive marketing and other costs in case of Ludhiana reduced the net share of farmers in this area than Chandigarh.

In case of the retail sales it was found that highest sales for meat were recorded on Sundays, followed by Tuesday and Saturday. The cost of maintaining live birds per day worked out to Rs. 0.11 and for frozen meat, Rs.0.08. The consumers preferred meat from live birds over frozen even at higher costs. In poultry meat at the existing prices the preference of consumers went to hen over broiler and
cockrel being the cheapest substitutes. However a panel of twelve consumers indicated its first preference for broilers, followed by hen, chick and cockrel in order. Similarly the preference of the panel was examined and fresh broiler was preferred over the frozen.

The Poultry Project which was established to help the farmers did not make much impact on the broiler industry. The prices provided by the Project to the farmers always ruled below the market prices and concession provided in the way of low prices for chicks was nullified by lower prices. Rather, the contracted broilers were not lifted by the Project at the optimum age and farmers were asked to wait to deliver the broilers to the Project when they attained one kg. live weight. This was seldom attained as the breed with the Project (AUSTARLG) did not have the genetical potential to gain good weight as compared to the commercial broilers. The number of broiler chicks distributed remained very low. This resulted into lesser number of broiler available to the Project. As a result, the plant of the project remained under-utilized and the maximum capacity utilized was during 1973-74 when it amount to 16 per cent of the installed capacity only. Further, the vested interests in the Project did not allow the revision of the Project prices in keeping with the rise in market prices. The revision of sales price of meat and purchase price of birds had to be sent to the
administration which took a long time in routine and affected the progress of the Project adversely. The activities of the project remained confined to 40 kilometers radius and the project did not establish its Poultry bird collection centres anywhere in the State. The meat yield obtained at the Project varied from 66 to 69 per cent compared with about 72 per cent under efficient situations in the U.S.A.

All these factors led to financial losses to the Project, and it ran under loss since its inception till 1972-73. However, a little profit was made during 1973-74.

Consumption pattern of meat with the consumers indicated that broilers meat was not consumed by the first three small categories (except one family of third category in urban area) because it was beyond their reach due to the high prices. Seasonal consumption pattern indicated that 60 per cent of the total meat in case of urban and 65 in case of rural areas, was consumed during winter. During summer, the consumption remained low because of the excessive heating psychology with the consumers. However, surprisingly in Chandigarh consumption with hotels was higher during summer because of the tourists—particularly the foreigners who visited this place in large number enroute to the hill stations. Most common size of the broiler demanded by the consumers was about one kg. live weight.

Prices of broilers showed an erratic upward trend during the study period. In case of Ludhiana, the market
prices always ruled higher than the Chandigarh area. At Chandigarh, the Project prices were lower. While highest price was paid by the distant markets followed by meat retailers. At Ludhiana, highest prices were received from the consumers followed by distant markets, hotels and nearby towns. Wholesale market prices ruled lower than these agencies. While comparing the prices paid by different agencies, it was found that these were higher for larger farms and vice versa. A comparison of prices in towns having large and small populations, indicated that prices ruled higher in the former case. Delhi prices generally ruled higher than Chandigarh and Ludhiana. Broiler prices were found to be ruling higher than fowl more than one per kg. live weight. While fixing the prices for purchase of birds from the farmers, the Project did not take into account the total costs of the farmers. Through time, it was found that the purchase prices for live broilers were not moving in line with the rise in feed prices, while the meat sale prices were revised by the Poultry Project and Private Agencies in keeping with the rise in feed prices. Thus, the benefit of the rise in prices was reaped by the intermediaries and very little was passed on to the farmers.
From the foregoing discussion, it can be safely concluded that as soon as broiler industry was introduced, the agencies involved in feed and hatching-trade started mal-practices. This resulted into low returns to the farmers from this enterprise and they did not take this business on a large scale. If loop-holes are plugged in the production and marketing systems, this industry has vast growth potential in the Panjab State as it is already surplus in feed ingredients. This will also provide cheap source of poultry feed from by-products of the Agro-based industries.

The following suggestions, if paid some attention can help to put this industry on a sound footing. The suggestions have been made for the farmers, policy makers and the Poultry Project separately.

**Farmers**

1. They should purchase chicks from reputed hatcheries even at higher costs which provide better returns.

2. Growth mortality can be reduced by getting timely expert advice even if it involves some cost to the farmers.

3. The farmers should maintain daily records of sales, mortality and consumption to eliminate the losses from pilferage which accounted for 0.5% of the total birds.
4. The sales should be started as early as possible by selecting healthy birds.

5. The most important point is that, for efficient sales, the farmers should form their cooperatives to collect and sell live birds as has been done in case of egg marketing at Chandigarh by the progressive Poultry Farmers Association.

6. The farmers should check the quality of feed from time to time. It will be better if they adopt the feed formula prescribed by the Punjab Agricultural University or Poultry Project and prepare the feed themselves.

7. While transporting the birds to the market, adequate space should be provided in the containers to avoid mortality losses due to congestion. The birds should be transported at night in the early hours of the day during summer.

8. The farmers should catch the birds taking every precaution to avoid injuries. It will be still better if the birds are sold after proper grading.

Policy makers

1. The poultry birds need to be brought under the Punjab Agricultural Produce Markets Act, 1961, so that poultry market yards are established in important towns. This will curtail the distance for farmers who travel long distances for disposal of their birds in Ludhiana. The
marketing charges for selling poultry need to be brought at par with the commercial crops. This will provide sufficient income to the concerned agencies and make it possible for them to bring improvements for marketing of live poultry.

2. Till a sound marketing system is established, there can be brokers in important broiler growing areas who should contact the interested buyers and inform the farmers. Farmers should not mind paying them a small commission for their services.

3. Grade standards need to be formulated for transactions being conducted at different levels.

4. Live poultry needs to be covered under the Market News Services so that prices for live poultry are included in the daily news bulletin on radio.

5. Cheap but good, quality broilers' feed formulae need to be evolved and provided to the feed manufacturers.

6. The railways should design wagons for transportation of poultry so that losses during transit could be minimised.

7. No hatchery should operate till it gets the licence. Conditions for the issuing the licence should be that parent stock is from reputed breeds and pedigree of broilers is maintained by each hatchery. Rate of chicks should be fixed at reasonable levels both for the hatchery and the poultry farms.
8. The farmers need to be educated regarding the utilisation of vitamins so that excessive costs on vitamins are not incurred unnecessarily.

**Poultry Project**

1. The administrative powers of the plant should be vested with the technical staff so that delays in day to day working of the project are avoided.

2. The poultry project should adopt the commercial broilers so that farmers purchase the broilers from the project where they can get, broiler chicks at concessional rates. Fortunately, Poultry Project has recently shifted to this breed depending upon the availability of the parent stock from the commercial hatcheries.

3. The prices for procurement of the birds should be attractive compared with the open market. These should be revised at short interval, so that prices of the project are better for the poultry farmers. The prices also need to be linked with the feed prices.

4. The plant should be operated at its full capacity. This will lower the processing costs and enable the plant to provide better returns to the farmers and supply meat to the consumers at low rate.

5. The poultry project should establish its collection centres in production potential areas. The Managers at each centres should be given commission for collecting
the birds from the farmers. This can be done by setting different routes for the poultry concentrated areas. One vehicle collecting the birds at the same route may run bi-weekly. Transportation costs can be minimised if the same vehicle is utilised for distribution of feed in one direction and on return collect the birds and eggs.

6. Small scale processing plants may be established at remote places where cost of transportation of live birds would work out to be heavy.

7. The project should establish its meat sale agencies in all important towns of Punjab and adjoining states.

8. The meat yield needs to be improved by removing all the defects responsible for low yields. An intensive study needs to be carried out for probing into the reasons of low meat yield. This will substantially add to the income of the poultry project enabling it to provide better prices for the live birds to the farmers and also supply meat at reasonable price to the consumers.

9. The Poultry Project should have a marketing section so as to promote sale of the product and procurement of the birds.

10. Mortality at the Project Breeding Farm needs to be brought down.