



## Financial Analysis of Broiler Production Units

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### ABSTRACT

The present paper entitled “A Study of Income and Investment Pattern of Broiler Production Units” was carried out on the basis of primary data collected through pre-tested schedule-cum-questionnaire with personal interview method. For purpose of the study, three groups of broilers units were selected purposely and classified as per bird size. Group I included birds below 2000 in numbers, group II included birds 2001-5000 in numbers and group III included birds 5001 & above in numbers. 15 broiler units were selected from each group, thus a total of 45 broiler units were studied. Kathua district of Jammu Kashmir Union Territory was selected purposively as the district has highest numbers of broiler production units. The cost of production includes variable cost and fixed cost, on first group broiler farms per lot cost of broiler production comes to ₹ 147112.45 for 1486.66 birds, on second group ₹ 367243.52 for 3666.66 birds and ₹ 959446.94 for 9466.66 birds respectively. The benefit-cost ratio per farm/lot observed highest on third group farms i.e. 1:52 followed by 1:35 on second group, 1:17 on third group, while it is 1:44 on overall on sampled farms.

### HIGHLIGHTS

- Financial analysis of broiler production units was done in Union Territory of Jammu Kashmir.
- The number of chicks in broiler units ranged between 2000 and 6000.
- The benefit-cost ratio per farm- per lot was 1:44.

**Keywords:** Broiler units, income, production, benefit-cost ratio

In India, poultry industry has made rapid progress in the last three decades not only in size but also in productivity, technology up gradation and quality as per strictest EU/ USA norms. India is the fifth largest producer of poultry meat in the world after USA, China, Brazil and Mexico (Anonymous, 2006). Poultry meat production increased from 81 thousand tonnes in 1961 to 1900 thousand tonnes in 2005 with an increase of 8.7 per cent and 6 per cent per annum during the eighties and nineties respectively (Mehta *et al.*, 2003). Poultry production is unique in that it offers the highest turnover rate and the quickest returns to investment outlay in the livestock enterprises (Sanni and Ogundipe, 2005). Funds invested in poultry production are recovered faster than in any other livestock enterprise. The rate of growth in production of poultry is the highest when

compared with ruminants and other monogastric animals (Braenkaert *et al.*, 2002) and the cheapest, common and the best source of animal protein (Ojo, 2002).

Meat is the major component of poultry industry. Poultry meat (Boiler) is an important source of high quality proteins, minerals and vitamins to balance the human diet. Specially developed breeds of chicken meat (broiler) are now available with the ability of quick growth and high feed conversion efficiency. Depending on the farm size, broiler farming can be a main source of family income or

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can provide subsidiary income and gainful employment to farmers throughout the year. Poultry manure has high fertilizer value and can be used for increasing yield of all crops. Besides a good agricultural component for quick return, broilers act as a major source of poultry meat in the country. Broiler production in India was merely 4 million in 1971 which had increased to 1250 million in 2000, further to 1563 million during the year 2006 and further to 3160 million during 2012 (FAO). The profitability of production mostly depends upon good parent stock, quality chicks and feed (Islam *et al.*, 2002), which has been made possible through a well-planned indigenization and acclimatization; with the result their productivity has been improved systematically to the levels at par with the developed countries.

The per capita per annum availability in India is about 42 eggs and 1.6 kg broiler meat while as the recommended per capita per annum consumption as per our nutritional board is 180 eggs and 9 kg meat (Gupta *et al.*, 2006). Thus, we are far behind the developed countries where the per capita per annum consumption level is 300 eggs and 11kg of poultry meat.

## MATERIALS AND METHODS

For purpose of the study, three groups of broilers units were selected purposely and classified as per bird size: Group I included birds below 2000 in numbers, group II included birds 2001-5000 in numbers and group III included birds 5001 & above in numbers. 15 broiler units were selected from each group, thus a total of 45 broiler units were studied. Kathua district of Jammu Kashmir (UT) was selected purposively as the district has highest numbers of broiler production units.

The data has been collected through personnel interview method with the help of pre-tested schedule and questionnaire; while secondary data will be collect from different sources.

## RESULTS AND DISCUSSION

### Cost of broiler production

The Table 1 depicts per farms cost of production in broiler enterprise in different categories of broilers farms. After the establishment of infrastructure, the broiler chicks are

**Table 1:** Cost of Production of Broiler (₹/per farm/per lot)

Sl. No.	Particulars	Group I (Lot=1486.66)	Per 100 Chicks	Group II (Lot = 3666.66)	Per 100 chicks	Group III (Lot = 9466.66)	Per 100 chicks
<b>Variable cost</b>							
1	Chicks	44599.80	3000.00	117333.12	3200.00	331333.10	3500.00
2	Total Feed	51289.77	3450.00	122833.10	3350.00	307666.50	3250.00
3	Vaccination	6541.30	440.00	16133.30	440.00	41653.30	440.00
4	Medicine	9068.63	610.00	22366.63	610.00	57746.63	610.00
5	Total labour	8176.63	550.00	20166.63	550.00	52066.63	550.00
6	Electricity	3121.99	210.00	7699.99	210.00	19879.99	210.00
7	Veterinary fee	6764.30	455.00	14666.65	400.00	33133.31	350.00
8	Miscellaneous	2973.32	200.00	7333.33	200.00	18933.33	200.00
9	Water	1486.66	100.00	3666.66	100.00	9466.66	100.00
10	Total	134022.40	9015.00	332199.42	9060.00	871879.40	9210.00
11	Interest on variable cost @ 7.5%	10051.68	676.12	24914.95	679.50	65390.95	690.75
Total variable cost		144074.08	9691.12	357114.37	9739.50	937270.35	9900.75
<b>Fixed cost</b>							
1	Rent for 35 days	1263.00	84.95	5499.99	150.00	10602.65	112.00
2	Depreciation on fixed assets	1486.66	100.16	3666.66	89.74	9466.66	73.98
3	Total Cost	2749.66	185.11	9166.65	239.74	20069.31	185.98
4	Interest on fixed cost @ 10.50%	288.71	19.43	962.50	25.10	2107.28	19.52
Total fixed cost		3038.37	204.54	10129.15	264.84	22176.59	205.50
Total cost		147112.45	9825.66	367243.52	10004.34	959446.94	10106.05

brought in batches/ lots. The cost of production includes variable cost and fixed cost. On first group broiler farms per lot cost of broiler production comes to ₹ 147112.45 for 1486.66 birds, on second group ₹ 367243.52 for 3666.66 birds and ₹ 959446.94 for 9466.66 birds respectively.

The cost of chicks contains the highest cost item in all categories of farms followed by cost of feed, interest on variable cost, cost of medicine, cost of labour, cost of vaccination, veterinary fee, miscellaneous, depreciation on fixed assets, interest on fixed capital and rent. The total cost of production of per 100 chicks comes to ₹ 9825.66 on group first, ₹ 10004.34 on second group farms and ₹10292.23 on third group farms respectively. The cost of chicks and cost of feed are the major cost items in broiler production on all categories of farms. The cost of per 100 chicks on different broiler farm comes to ₹ 3000.00 for first group, ₹ 3200 for second group and ₹ 3500 on third group respectively, while the cost of feed varies to ₹ 3450 on first group, ₹ 3350 on second group and ₹ 3250 on third group respectively. The cost of medicine is the next important item of cost which comes to ₹ 610 on all three groups of farms for 100 birds respectively. The broiler production is a labour intensive enterprise as it comes to ₹ 550 on all three group broiler farms under study. A close perusal of table depicts that the percentage share of variable cost to total cost comes to about 97 per cent on different group of farms, while the percentage share of fixed cost to total cost varies to 2.10 per cent to 3.10 per cent on different categories of poultry farms under study.

### Production and returns from broiler farms

The Table 2 revealed the production of main-product, overall average number of birds produced were 4406.98, while as in case of group first, average number of birds were 1315.8 and the average weight per birds was 1.25 kg.

In the case of group second the average number of birds produced was 3300 and the average weight of per bird was 1.37 kg while the average number of birds produced on group third was 8605.16 and the average weight was 1.34 kg per birds. Thus, there was not much variation in the average weight neither per birds nor in the quantity of meat produced per birds among the farm groups. The overall weight was 1.34 kg per farms and overall quantity was 59.93 quintal per farms, price per quintal ₹ 11266.66 per farms and average total value was ₹ 675210.93 per farm.

**Table 2:** Production status of sampled farm

Particular/ Farm size	Group-I	Group-II	Group-III	Overall
<b>Main Product</b>				
No.	1315.8	3300	8605.16	4406.98
Average wt.(kg)	1.25	1.28	1.37	1.34
Qt.(q)	16.44	42.24	117.9	59.93
Price/q (₹)	10100	11500	12200	11266.66
Value (₹)	166044	485760	1438380	675210.93
<b>By-Products</b>				
<b>Manure</b>				
Qt.(q)	26	43	81	50
Price/q (₹)	225	225	225	225
Value (₹)	5850	9900	18225	11325
<b>Gunny Bags</b>				
No.	29	72	186	95.6
Price/bag (₹)	8	9	10	9
Value (₹)	232	648	1860	931.15
Gross Income	172126	496308	1458465	687467.08

The Table 3 depicts the group wise per farm/ per lot cost of broiler production, gross income, net income and benefit-cost ratio. The overall per farm/per lot total cost comes to ₹ 491267.637 varies to ₹ 147112.45 on first group farms, ₹ 367243.52 on second group farms and ₹ 959446.94 on third group broiler farms under study. The per farm/

**Table 3:** Income from broiler production (main product) (₹ Per lot /Per farm)

Broiler farms	Variable cost	Fixed cost	Total Cost	Gross Income/lot	Net Income/lot	C.B. Ratio
Group I	144074.08	3038.37	147112.45	172126.00	25013.55	1:1.17
Group II	357114.37	10129.15	367243.52	496308.00	129064.5	1:1.35
Group III	937270.35	22176.59	959446.94	1458465.00	499018.1	1:1.52
Overall	479486.2667	11781.37	491267.637	708966.33	217698.7	1:1.44

**Table 4:** Returns from broiler production (₹/100 chicks)

Broiler farms	Main Product	By-product	Other Income	Gross Income	Total Cost	Net Income	C.B. Ratio
	Value	Manure	Gunny Bags				
Group I	12625.00	444.60	42.55	13112.15	9691.12	3421.03	1:1.35
Group II	16100.00	443.18	45.00	16588.18	9739.50	6848.68	1:1.70
Group III	16714.00	470.64	48.80	17233.44	9900.75	7332.69	1:1.74
Overall	15146.33	452.81	136.35	15735.49	9777.12	5958.37	1:1.61

lot gross income on overall farms comes to ₹ 708966.33, ₹ 172126 on first group farms, ₹ 496308 on second group farms and ₹ 1458465 on third group farms respectively. The per farm/lot net income on overall farms comes to ₹ 217698.7, while it was ₹ 25013.55 on first group farms, ₹ 129064.5 on second group farms and ₹ 499018.1 on third group of broiler farms respectively. The benefit-cost ratio per farm/lot observed highest on third group farms i.e. 1:52 followed by 1:35 on second group, 1:17 on third group, while it was 1:44 on overall on sampled farms under study.

Table 4 further indicated that the return from the main-product and by-product from broiler production per hundred chicks. The gross income over all average was ₹ 15735.49 while as in case of group I was ₹ 13112.15, group II was ₹ 16588.18 and similarly group III was ₹ 17233.44 respectively. While as in case of net income over all average is ₹ 5958.37, out of which in group I was ₹ 3421.03, group II was ₹ 6848.68 and group III was ₹ 7332.69 respectively. Similarly whereas in case of cost benefit ratio overall average was 1.61 out of which in group I was 1.35, group II was 1.70 and group III was 1.74 respectively.

## CONCLUSION

The cost of production includes variable cost and fixed cost, on first group broiler farms per lot cost of broiler production comes to ₹ 147112.45 for 1486.66 birds, on second group ₹ 367243.52 for 3666.66 birds and ₹ 959446.94 for 9466.66 birds respectively. The study further shows that the percentage share of variable cost to total cost comes to about 97 per cent on different group of farms, while the percentage share of fixed cost to total cost varies to 2.10 per cent to 3.10 per cent on different categories of poultry farms under study. The overall average number of birds produced was 4406.98 whereas the overall average

price/quintal was ₹ 11266.66. The benefit-cost ratio per farm/lot observed highest on third group farms i.e. 1:52 followed by 1:35 on second group, 1:17 on third group, while it is 1:44 on overall on sampled farms under study. In case of Returns from broiler production (₹ 100 chicks), the overall average cost benefit ratio was 1.61.

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