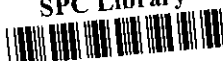




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EVALUATION OF BROILER (MEAT CHICKEN) PERFORMANCE

by

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Practically based but reliably recorded information on the actual processes of animal farming is not always easy to obtain. This report of work done in American Samoa on rearing meat chickens for sale could be of interest to anyone thinking of entering this line of business on a commercial basis.

Two batches of day-old broiler chickens were imported by air and reared for sale for slaughter. Batch I consisted of White Cornish Cross and Batch II of Starcross Shaver. Both are hybrid breeds.

Batch I of 540 chickens was purchased in August to be ready for sale for White Sunday in early October. Batch II of 510 chickens was purchased to be ready for sale for Christmas. All sales were of live birds.

They were reared on wire floors in roofed houses with adequate ventilation and permanent watering facilities.

Batch I

The birds were sold after 58 days when they had an average liveweight of 3.6 lb. 526 birds survived, giving a loss of 14 birds representing 2.6 percent mortality. Due to a shipping delay it was necessary to feed chick starter food for the first ten days before changing to broiler grower/finisher food. A week before sales began the food was changed to 50/50 broiler and chick starter feed. Thus the main feeding period with broiler grower/finisher was 42 days. Total food used was 40 bags broiler grower/finisher and ten bags chick starter to point of sale.

Feed wastage was high to begin with because of the type of feeder used which did not have grilles to prevent the chicks scratching feed out of the tray. Since the chicks were reared on a wire floor this was the only scratch material available which may have aggravated the situation.

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At sale the birds averaged 3.6 lb and ranged from 3.25 to 4.50 lb in weight. Their feed efficiency was 2.75 lb of feed per 1 lb liveweight sold. Carcase weight was estimated at 2.71 lb based on a 75 per cent dressing percentage.

Average sale price was \$US1.80 (an average of 67 cents per lb). Frozen imported carcasses were selling at this period at 65 cents per lb.

Batch II

These birds were sold after 68 days when they had an average liveweight of 4.25 lb. 505 birds survived giving a loss of only five birds or one per cent. Broiler starter/finisher feed was available from the beginning of the feeding programme for this batch. Adjustments to the feeders reduced food wastage compared with Batch I although the problem was not solved entirely. Total food used was 40 bags of broiler feed and seven bags of chick starter to point of sale.

At sale the birds average 4.25 lb and ranged from 3.50 to 5.00 lb in weight. Their feed efficiency was 2.19 lb feed per 1 lb liveweight sold.

Carcase weight was estimated at 3.18 lb. These birds were sold at the same basic price as Batch I, \$US1.80 each. This meant that carcass price was 56 cents per lb. At that time commercial wholesale rates were between 58 and 63 cents per lb of carcass.

Costs and Returns

	<u>Batch I</u>	<u>\$US</u>	<u>Batch II</u>	<u>\$US</u>
Chicks	540 at 35¢ landed	189.00	510 at 47¢	240.00
Feed	40 bags at \$13	520.00	40 bags at \$13	520.00
	10 bags at \$12	120.00	7 bags at \$12	84.00
Total		<u>829.00</u>		<u>844.00</u>
Direct cost per bird		1.60		1.68

Feed Efficiency

	<u>Batch I</u>		<u>Batch II</u>
Total feed used in 58 days	5,200 lb	Total feed used in 68 days	4,700 lb
Average per day	89.65 lb	Average per day	69.12 lb
Average per bird	9.89 lb	Average per bird	9.31 lb
Feed used per LW lb sold	2.7461lb	Feed used per LW lb sold	2.1898lb
Average liveweight	3.6 lb	Average liveweight	4.25 lb

This report has assumed the normal commercial practice of selling all birds within one week.

In fact Batch I birds sold slowly initially and it was mid-October before large sales occurred. The final batch of 46 birds did not sell until early November. This compares with a market originally forecast for early October. Batch II sales were much brisker and the birds were sold within the few days either side of Christmas.

Obviously in a full economic analysis of these results costs of normal dressing, refrigeration, packing and marketing would have to be assessed as well as those considered here relating to purchase, feed and sale price.

Conclusions

Much greater feed efficiency was shown by Batch II than by Batch I birds. To some extent this could be due to the lack of broiler feed for the first ten days of Batch I feeding.

Better survival rate (1.0% compared with 2.6%) was observed in the Batch II birds.

The differences between direct costs and sale price were 20 cents per bird for Batch I and 12 cents for Batch II. However if it had been possible to buy the Batch II birds for the same landed costs as Batch I (35 cents instead of 47 cents) then a hypothetical margin per bird of 24 cents can be assumed.

Feed efficiency in Batch I could have been better with better attention to feed wastage. The average feed efficiency of both groups was 2.46 lb per 1 lb liveweight sold, and assuming the same landed cost per bird a margin of 20 cents can be expected.

The feed efficiency of Batch II birds was good and suggests that with reasonable management good performance is possible under American Samoan conditions.

The wire floor system is important because of the reduction in disease and in the chances of reinfection, particularly with coccidiosis.

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