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EC1493 Commercial Broiler Production in Nebraska : A Supplement to E. C. 1492

J. H. Claybaugh

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Commercial Broiler Production in Nebraska

a Supplement to E. C. 1492 by J. H. Claybaugh

Raising quality broilers on a commercial all year basis in Nebraska is a promising new industry that has been receiving considerable publicity.

Broiler production enables Nebraskans to capitalize on environmental factors favorable to this area. It provides job opportunities in all segments of the poultry industry. It utilizes locally produced feeds to convert raw materials into a higher priced product and thus increase the wealth of the state. All year production of broilers will help to keep processing facilities in operation. Nebraska is centrally located to shorten the route from the grower to the consumer. An early result of growing broilers in Nebraska has been the stimulation of interest in developing broiler type breeding flocks that supplies the grade of broiler which best meet the demands of both producer and consumer.

The Situation

The by-product from farm egg laying flocks as a source of poultry meat, does not furnish the quality, quantity, or all year supply that is required.

Fast growing commercial broilers furnish the quality meat of the poultry yard. Commercial broiler production was an infant industry in 1934 when the total value of all broilers in the United States was listed at 34 million dollars. The value of commercial broilers has exceeded the value of all turkeys produced every year since 1941. The value of broilers grown in 1947 was more than half the value of all other chickens. The broiler growing industry has developed when the broiler feed ratio has been 7.5 to 1. When one pound of broiler will buy 7.5 pounds of feed, the ratio is evidently favorable.

The large demand and small supply made specialized broiler production in Nebraska profitable during the first half of 1948 when the broiler feed ratio was less than 7.5 to 1. During the last half of 1948 the ratio was more favorable to the broiler grower. Continued prosperity of commercial broiler production in Nebraska will largely depend upon the development of local supply of chicks from improved meat type breeding flocks that are free of pullorum. Larger production units must develop. Trucks need be fully loaded at one stop if procurement costs are to be reduced and if the growers are to get the advantage of making direct sales to the processors. More of the labor saving methods become practical where units of 2000 or more broilers are grown in one room. To supply the all year demand continuous production or 3 to 4 broods a year will be required. Efficient operations covering all phases of production is an essential for success.

Requirements for Successful Broiler Production

Broiler production in Nebraska represents an agricultural enterprise. It can develop to a full time basis on either acreages or farms. It can be made a major enterprise on a diversified farm. On a full-time basis one man with modern facilities can take care of 15,000 to 20,000 chicks. Full time production on an all year basis is considered more economical and more profitable. Part time operations with 1,000 to 5,000 has proved profitable. In starting a part time broiler project it is a good idea to plan for expansion.

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1. Adequate Housing. The type of buildings now being recommended are such that can be converted to use of other livestock. If a new house for 1,500 chicks is to be built the sizes recommended would be 30 x 50 feet or 24 x 60 feet. Allow three fourths to one square foot of floor space per chick. Provide sanitary, comfortable, well lighted and cross ventilated houses. The houses must be leak proof, rat proof, free of drafts, and well enough insulated to hold heat.

2. Adequate and Sanitary Feeders. Use small chick-size feeders and provide one inch of feeder space per chick for first three weeks. After third week use larger feeders and allow two inches of feeder space per chick. See that all feeders have reels or guards to insure cleanliness and to prevent waste. After six weeks use four feet feeders and elevate them as the chicks grow. See Nebr. Circular 1441.

3. Adequate and Sanitary Waterers. Chicks must have access to plenty of clean fresh water at all times. Provide it in clean filthproof--leak-proof fountains. Allow one waterer of two or three gallon capacity per 100 chicks; or in trough waterers 30 inches if watering space per 100 chicks.

4. Use Labor Saving Equipment and Methods. Reduce labor costs by using feed and litter carriers, automatic waters. Provide a feed and store room. See that adequate cleaning equipment stiff brushes, sprayers, tools and other necessary supplies are available and conveniently located.

5. Use a Good Brooder. A reliable and economical source of heat is necessary. Provide one brooder for each 400 to 500 chicks and operate according to the manufacturers directions. The choice of a brooder is up to the producer, but whether it is electric, gas, kerosene or coal it must be regulated and operated efficiently.

6. Efficient Management. Plan a working schedule and follow it. Broiler production is a highly specialized undertaking and will not tolerate negligence. If you study the job and learn to do it right it will pay good dividends.

7. Superior Chicks. Only superior quality heavy breed chicks grow into superior quality broilers. These come from heavy breed, broiler-bred, pullorum-clean, parent stock. The broiler or fryer which consumers want, and for which they pay premium prices, has yellow skin, is tender, full fleshed, fast grown and free of pin feathers.

8. Proper Feeds and Feeding. Broilers must have a complete wholesome diet--one that contains all the nutritional factors essential to health. The quality of the feed determines the quality of the broilers. The more they eat of the right feeds, the faster and cheaper the gains. So feed liberally and provide plenty of sanitary waste-proof feeders. Estimate about 3.5 to 4 pounds of feed per pound of gain. To prevent waste do not fill feeders over two-thirds full.

9. Health and Sanitation. Start only disease free chicks in a clean house with clean equipment and management. Medication is neither a dependable form of health insurance nor a substiture for sanitation. Keep visitors, dogs, cats, rats, birds, and other chickens out of the brooder house.

10. Have an Adequate Supply of Dry Litter. Use plenty of clean absorbent litter and start with a depth of four to six inches. Some growers prefer to start with sufficient litter for the entire twelve weeks. Adding litter when chicks are eight weeks of age is quite a chore. Stirring litter helps keep it dry and dry litter is necessary. Stirring litter that is moist and which contains moldy feed would result in losses.

11. House and Brood Different Ages Separately. Avoid the disappointments that go with chicks of different ages in the same house.

12. Keep Broiler Chicks Inside all the Time. This is to insure proper feeding, efficient gains, tender fast growth and good health. Sunporches may be used in mild weather but they are not particularly essential.

13. Financing Broiler Production. Finance must be sufficient to cover the cost of chicks, feed, fuel, litter, and rent or depreciation and interest on equipment. A typical cost analysis would be as follows:

Chicks @ 16 cents each	16.00 cts. or 22.0%	of total
Feed, 11.5 @ $4.25 per cwt.	49.00 cts. or 66.0%	of total
Fuel	2.00 cts. or 2.7%	of total
Litter	1.50 cts. or 2.0%	of total
Mortality	1.00 cts. or 1.3%	of total
Depreciation and Interest or Rent	4.50 cts. or 6.0%	of total
Total	74.00 cts. 100.0%	

14. Marketing. When the birds reach market age of twelve to fourteen weeks, it is generally advisable to sell them -- and sell all of them at one time. Little or no advantage results from dragged out sales. As numbers are reduced, the per chick cost of keeping them increases. The flesh begins to harden after about fourteen weeks, the rate of gains decreases and the cost of gains increases and after this age they require more space.

15. Lighted broiler houses are becoming standard practices. Some are dimly lighted, about one 10 to 20 watt electric light bulb per 200 square feet of floor space. Dim lights used all night seem practical.

16. Chick size grit or gravel is commonly self fed to chicks after the draft shields have been removed and the chicks have access to the house.

17. Grains: Some grains (equal parts of whole oats and cracked corn) are fed after the chicks are six weeks of age. The total amount of grain fed should not exceed 25 to 30 percent of the ration.

18.

Approximate Average Weekly Weight of Healthy, Well Fed, Broiler Chicks

Age in Weeks	Ave. Weight per Bird Lbs.	Cumulative Feed Consumption Per Bird. Lbs.	Mortality Cumulative Percent
1.	.12	.15	1.5
2.	.32	.50	2.0
3.	.50	.85	2.2
4.	.65	1.35	2.5
5.	.90	2.10	2.6
6.	1.10	3.00	2.7
7.	1.40	4.20	3.1
8.	1.70	5.20	3.5
9.	2.10	6.90	3.8
10.	2.50	8.50	4.1
11.	2.90	10.20	4.4
12.	3.35	12.00	5.0

19. Complete Records. Broiler growers should summarize cost records on each lot grown. The following can be used to estimate possible costs of starting 1,500 chicks and comparing estimates with final results.

Dates started_____ Sold_____ Age in days when sold_____

Number started_____ Sold_____ and _____% raised.

Breed_____ Strain_____ Source_____

Size of room_____x_____ Brand of feed_____

FEED CONSUMPTION & COST:

	Estimate per Chick	Estimate per 1500	Your Estimate	Actual Costs
Starter to 6 weeks	3 lbs.	4500		
Broiler 6 to 12 weeks	6 6.5 "	9700		
Grains 6 to 12 weeks	2.5 "	3800		
Other feeds				
Total feeds lbs.	12.0 "	18.000		
Cost per cwt.	4½¢	4½¢		
Total cost	54 ¢	810.00		
Cost per bird	54 ¢	54 ¢		
Feed cost per lb.	16.6	16.6		
Feed per lb. gain	3.5	3.5		

OTHER COSTS:

Chicks	12 to 16¢			
Fuel	1 to 3			
Litter	2 to 13			
Insurance				
Depreciation and interest	2 to 5			
Miscellaneous				
Total cost	81¢			
Av. cost per bird	81¢			
Av. cost per lb.	25¢			
Selling price per lb.				
Margin per lb.				

If there was any loss in this brood from disease, name it_____ _____age when effected_____, possible cause_____ _____.

If any loss from crowding record when_____and cause_____ _____.

Explain reason for either high or low feed efficiency_____ _____ _____.

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