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1-1-1981

Goose Marketing and Production: Characteristics and Problems of South Dakota's Goose Industry

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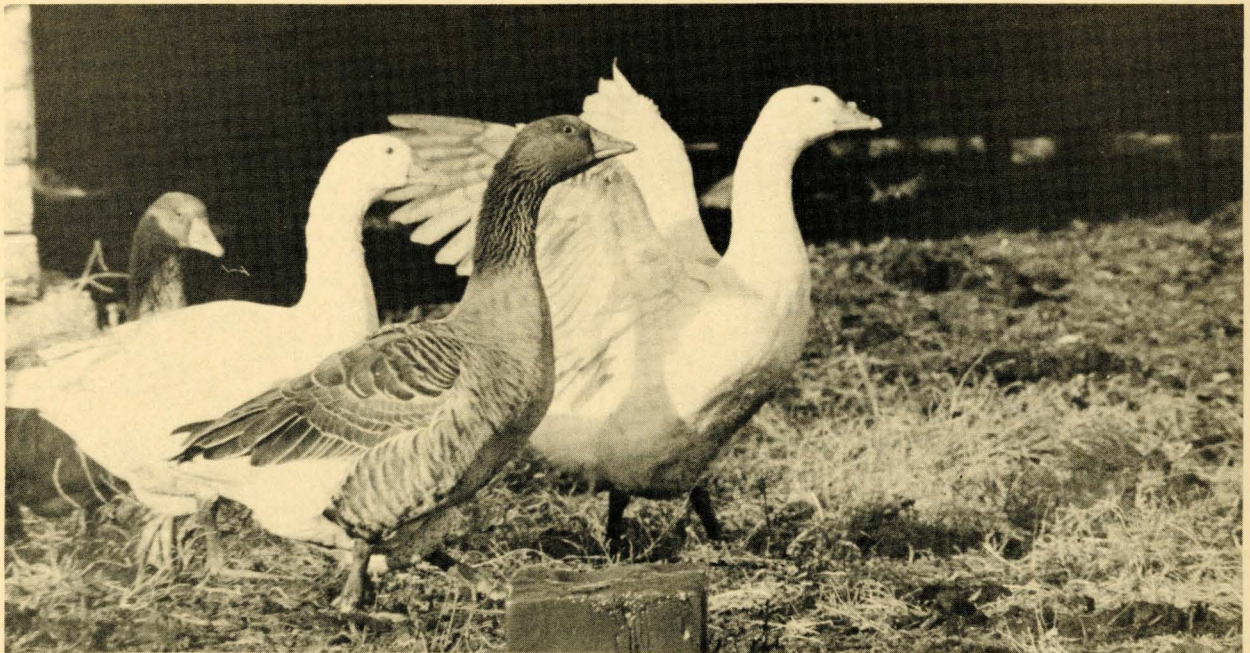
Shane, R. and Benning, L., "Goose Marketing and Production: Characteristics and Problems of South Dakota's Goose Industry" (1981). *Bulletins*. Paper 678.

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Goose marketing and production

Characteristics and problems of South Dakota's goose industry



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INTRODUCTION

The U.S. goose industry has experienced substantial change in the past century. In 1890, goose production was estimated at 8.5 million birds. By 1929, production had fallen by over 50% to 3.99 million geese. This trend continued into the sixties when production fell to a half million geese (Kropp). The 1974 Census of Agriculture reported the number of geese in the U.S. at only four hundred thousand (Bureau of the Census).

South Dakota, the largest goose producing state in the nation, produced 52% of the U.S. total in 1974. Income from goose production affected over 140 farms in the state in 1974 (Bureau of the Census).

The goose is one of the most efficient converters of feed to meat known to man. L. B. Kropp stressed this point in Feedstuffs. He said, "The American-bred White Embden gosling is the fastest growing domesticated bird we know of to 10 weeks of age. The gosling weighs about 4 oz. when hatched. By four weeks, it can grow to 5.8 lb. And by 10 weeks it can grow to 11.16 lb...."

This efficiency is not limited to supplements and grain. The goose has the ability to convert large quantities of grasses, clovers, and weeds into meat and valuable down and feathers for insulated clothing. A gosling started in the spring may graze for four to five months of its life.

Since geese can be produced on lands which are often waste, goose production appears to be a viable complementary enterprise for South Dakota farmers. Further supporting farm production of geese is the low labor intensity of the enterprise. Yet the numbers suggest that the ease of production and use of waste land around buildings, lakes and in driveways are not enough to induce farmers to continue to produce geese.

Goose processors and the South Dakota Goose Association are aware that problems exist in goose production and marketing in South Dakota. However, the dimensions and exact nature of the problems are unknown. Therefore, in 1979, the Goose Association requested that South Dakota State University cooperate in obtaining, analyzing and distributing information concerning the current situation in the South Dakota goose industry.

OBJECTIVES

The objectives of this study were to survey South Dakota goose producers and processors to determine:

- (1) production and nutritional practices and problems associated with goose raising,
- (2) marketing patterns and problems encountered by producers,
- (3) future production intentions, and
- (4) production cost and revenue data.

PROCEDURE

A mailing list of goose producers was compiled in 1979 with the cooperation of the South Dakota Goose Association, the South Dakota Poultry Improvement Association, and the South Dakota Department of Agriculture. Questionnaires were sent to 153 producers which were estimated to comprise 75% of all goose producers in the state. One-third of the questionnaires were returned with 47 of the 51 responses being usable for the study. These 47 respondents represent 29% of the goose producers in South Dakota. In addition, goose processors in South Dakota and Minnesota were contacted by telephone. Three of the four processors were contacted and asked questions concerning goose marketing problems.

Most of the results of the survey are descriptive in nature. The statistical analysis used was chi-square tests for significant differences in death loss by size category. Production cost data was obtained using a case study approach to derive budgets for several enterprise sizes.

Geese Produced

The 1974 Census of Agriculture reported 140 goose producers in the state of South Dakota raising just over 212 thousand geese. The numbers declined during 1975 and 1976. However, more producers were again induced to enter the industry in 1977 and 1978 as goose prices rose to over \$.60 per pound of live goose in 1976 and 1977 and profits emerged for the producers.

Results of this survey indicated that there were approximately 145 producers in 1978 and 160 producers in 1979. The producers raised 152 thousand geese in 1978 and over 195 thousand geese in 1979 (see Table 1).

The 1978 production increase depressed prices to the low 40's and led to a carryover of goose into 1979. This, coupled with even greater expansion in 1979 production, resulted in a \$.40/lb price (live) late in the season. Many geese could not be sold as processors could not merchandise so many geese through existing market channels. Consequently, some producers were forced to have geese dressed and put in cold storage. Attempts were made to market some geese direct to consumers but local markets were quickly saturated and there was a carryover into 1980.¹

¹

Although actual figures were not available, information from the survey suggested that nearly 20% of 1979's geese were kept in storage for 1980.

Table 1. Number of Geese and Farms Raising Geese by Size of Enterprise in South Dakota for 1978 and 1979.¹

Goslings Placed ²	1978				1979			
	Farms	% of Total	Geese		Farms	% of Total	Geese	
			Number	% of Total			Number	% of Total
0	11	23.4	0	0.0	8	17.0	0	0.0
1- 100	5	10.6	367	0.8	7	14.9	472	0.8
101- 300	9	19.1	1780	4.0	13	27.6	2794	4.9
301- 500	7	14.9	3400	7.7	3	6.4	1185	2.1
501- 900	3	6.4	2500	5.7	3	6.4	2220	3.9
901-1500	6	12.7	7100	16.1	3	6.4	4200	7.4
1501-2000	2	4.3	4000	9.1	4	8.5	7920	14.0
2001-5000	2	4.3	5950	13.5	4	8.5	12900	22.8
75000	<u>2</u>	<u>4.3</u>	<u>19000</u>	<u>43.1</u>	<u>2</u>	<u>4.3</u>	<u>25000</u>	<u>44.1</u>
Total	47	100.0	44097	100.0	47	100.0	56691	100.0

¹These numbers represent 29% of the population of goose producers in South Dakota.

²Producers with zero geese in 1978 were not necessarily the same producers who had zero geese in 1979.

Most of the goose producers were aware of marketing problems existing in 1979 and this will have an impact on 1980 production levels. Of the 47 farmers responding to the survey, 11 said they were planning to raise no geese in 1980 and 14 producers were undecided. Several producers planned to expand so that the 36 respondents planning to produce in 1980 would produce almost 53 thousand geese (see Table 2). Extending the result of this sample to the entire population of goose producers leads to production estimates of approximately 212 thousand geese, a small decrease from 1979. If the 14 producers who were undecided raised geese at the same level as in 1979 and this is extended to the whole state, 255 thousand geese could be produced in 1980 in South Dakota. With existing marketing channels, such a large number of geese would lead to market prices in the mid to high 30's, producer losses and carryover of as high as 30% of production.

Market outlets for geese would have to expand to allow producers to receive prices that will cover costs of production. When asked how many geese would be raised if a market could be insured, nearly all respondents indicated that they would expand production. Of the 47 survey respondents only one indicated an enterprise level of zero, seven did not respond and five did not know how many geese they would raise (see Table 3). The remaining 34 respondents projected raising over 115 thousand geese which when extended to the entire state, leads to an estimate of over 397 thousand geese raised in South Dakota. As new producers enter the industry, this number would be even greater. South Dakota could easily produce over 500

thousand geese with an estimated farm value of \$3.5 million, if an assured market existed.

Table 2. Number of Geese and Farms Raising Geese in South Dakota by Size of Enterprise Projected for 1980.

Goslings Placed	Farms	% of Total	Geese	
			Number	% of Total
0	11	23.4	0	0.0
1- 100	1	2.1	50	0.1
101- 300	5	10.6	1300	2.5
301- 500	5	10.6	2075	3.9
501- 900	2	4.3	1550	2.9
901-1500	1	2.1	1000	1.9
1501-2000	3	6.4	6000	11.3
2001-5000	2	4.3	9000	17.0
> 5000	3	6.4	32000	60.4
Don't know	14	29.8	(20700) ¹	----
Total ²	47	100.0	52975	100.0
Total ³	162	----	182670	----

¹The 14 producers who were unsure of next year's enterprise size placed 20,700 geese in 1979. If they all produced at 1979 levels the total would be 73,675 geese and 17,000 would be in the largest two enterprise sizes from two producers.

²These numbers represent 29% of the population of goose producers in South Dakota.

³This total was derived by extending the sample to estimate the total number of producers and geese produced in the state.

The large expansion induced by assured markets would decrease the concentration in goose production. The intentions for 1980 shown in Table 2 indicate that 15% of the producers raise nearly 85% of the geese in South Dakota. With assured markets (Table 3), this concentration would be reduced. The top 15% (or about 25) of the producers would raise 69.4% of South Dakota geese.

Table 3. Projections for Number of Geese and Farms Raising Geese in South Dakota by Size of Enterprise If An Assured Market is Available.¹

Goslings Placed	Farms	% of Total	Geese	
			Number	% of Total
0	1	2.1	-0-	0.0
1- 100	1	2.1	100	0.1
101- 300	2	4.3	550	0.5
301- 500	5	10.6	2,350	2.0
501- 900	5	10.6	3,750	3.3
901-1500	8	17.0	9,000	7.8
1501-2000	1	2.1	2,000	1.7
2000-5000	5	10.6	17,500	15.2
> 5000	7	14.9	80,000	69.4
Don't know	5	10.6	(700) ³	----
No Response	7	14.9	(3578) ⁴	----
Total ²	47	100.0	115,250	100.0
Total ⁵	162	----	397,415	----

¹Includes only current producers. With insured market new producers may appear in the South Dakota goose industry.

²These numbers represent 29% of the population of goose producers in South Dakota.

³The don't knows were all small producers and raised a total of 700 geese in 1979.

⁴The no response group produced 3578 geese in 1979. If no response and don't know producers placed as many goslings as in 1979, the total would be 119,528 geese.

⁵This total was derived by extending the sample information to estimate the overall number of producers and geese that would be produced if an assured market existed.

Death Loss

The main reasons for death loss were crippling and suffocation of young. The crippling did not necessarily kill the goose but lead to a nonsaleable product whereas the most frequent killer of geese was suffocation caused by human error and

natural phenomena. Human error was mainly attributed to insufficient heat for goslings. Natural phenomena included weather problems, predators, and disease. Predators (including domesticated cats and dogs) were a problem for only four producers. Disease, which killed large numbers, was reported by only two producers.

Death loss percentage by size of goose enterprise is presented in Table 4. The percentage death loss was greatest for the 901 to 1500 goose enterprise at 17.9% and smallest for goose enterprises of under 100. This statistic alone is misleading. Other measures of death loss indicated that small goose enterprises had as much variability in death loss as the larger enterprises. The range (per producer) of death loss was from zero for small enterprises up to a high of 30% for one producer in the 1501 to 2000 goose enterprise size. The largest range was for this size enterprise also, but the 1 to 100 size category had a larger range than the 101 to 300 size category. Another measure of variability, standard deviation, indicated that the 901 to 1500, 1501 to 2000 and 1 to 100 size enterprises were most variable. These measures were then combined in the coefficient of variation (C.V. in Table 4) which measured the relative variability of death loss by enterprise size. This measure indicated that the lowest relative variability existed for the 901 to 1500 goose enterprise which also had the largest death loss average. This measure indicated that the death loss for the larger enterprises is more predictable than for the smallest enterprise sizes.

A chi-square test was used to test the hypothesis that there was no relationship between death loss percentage and enterprise size. In order to meet the criterion for validity of the test,* the observations had to be grouped differently than in Table 4. The groupings by size were 1 to 500, 501 to 1500 and greater than 1500 and the grouping by death loss percentages were 0 to 5, 6 to 10, 11 to 15 and greater than 15. The calculated chi-square value was 11.65. The critical value or value which chi-square would have to be to reject the hypothesis of independence was 12.59 at a 95 percent confidence level. Therefore, the test indicates that there was no relationship between death loss percentage and enterprise size.** Therefore, it appears correct to conclude that as goose enterprise size increases death loss proportions do not necessarily change. Death loss appears to be random across all enterprise sizes.

Goose Market Weight

In addition to death loss another factor affecting the amount of goose on the market is the size or weight at which geese are marketed. Forty-one of the respondents reported the live weight of their marketed geese ranging from 12 to 17 pounds per goose (Table 5). The most frequent selling size was 14 pounds with 85% of the geese marketed at 13 to 15 pounds.

Where Marketed

Goose producers marketed their geese predominantly to South Dakota processors in both 1978 and 1979, (see Table 6). The three South Dakota processors purchased 75.9% of the geese marketed in 1978 and 69.7% in 1979. The second largest outlet for geese was out-of-state processors in 1978 at 18.9%. Geese marketed direct to consumers constituted the second largest sales channel in 1979 at 13.4% This was a

*There should be at least 5 observations in each classification by enterprise size and percentage death loss.

**Several other groupings of death loss percentages and enterprise were tested and all results were the same as reported here.

substantial increase over the 2.4% marketed direct to consumers in 1978. In 1979, 12.1% of the geese raised were not yet marketed and no real market prospects existed when the questionnaire was completed. This represents around 27.5 thousand geese left on the farm or in storage.

The major reason for the change in marketing patterns between 1978 and 1979 was the existence of a large carry over of frozen geese from 1978. Processors were willing to clean geese (1979) for farmers but the farmers needed to find cold storage for their own geese. The combined carry over of geese by processors and farmers is estimated at around 100 thousand geese in 1980. This represents about 20% of 1979's production and a slight growth in carry over from the previous year. This carry over will undoubtedly hold goose prices down in 1980 unless promotional efforts are successful in increasing consumer demand for geese.

The goose is currently labeled as a holiday food for Thanksgiving or Christmas. If geese are not marketed before Christmas, stores must keep the bird for nearly a year as the goose is not in demand all year round like its major competitor, the

Table 4. Death Loss by Size of Goose Enterprise (Goslings Placed).

Size	Observations	\bar{X} - % loss ¹	Range	Std. dev. ²	C.V. ³
1- 100	9	4.2	0.0-19.4	7.51	1.79
101- 300	22	6.4	0.0-18.7	4.84	0.76
301- 500	10	10.2	2.0-26.1	6.46	0.63
501- 900	6	6.5	3.2-12.5	3.45	0.53
901-1500	7	17.9	7.9-26.6	7.61	0.43
1501-2000	6	12.9	1.1-30.0	10.53	0.82
> 2000	9	9.0	2.5-20.6	5.91	0.66

¹ \bar{X} is the average percentage death less for each enterprise.

²If you add or subtract one standard deviation to the average, the range of values calculated will contain two-thirds of the actual producers loss percentate observed. Ninty-nine percent would be found within two standard deviations.

³C.V. is the coefficient of variability derived by dividing the standard deviation by the average (\bar{X}). Its value indicates relative variation amongst the enterprise sizes. The smallest enterprise size has the most variation (1.79) relative to the other sizes.

Table 5. Number of Farms Selling Geese at Differing Market Weights

Live Weight ¹	Farms	Percentage
12	2	4.9
13	10	24.4
14	15	36.5
15	10	24.4
16	2	4.9
17	2	4.9

¹There was occasional reference to marketing at as high as 18 pounds but not on regular basis.

Table 6. Marketing of Geese in 1978 and 1979¹

Where Marketed	1978	1979 ²
	(Percent)	
Direct to consumers	2.4	13.4
S.D. processors	75.9	69.7 ⁴
Out-of-state processors ³	18.9	3.7
Home use	0.7	1.1
Not marketed	2.1	12.1 ⁵

¹Eighty-nine percent of goslings placed were raised and marketed.

²Intentions, possibly no market available.

³Includes geese marketed direct to out-of-state retailers.

⁴Includes those on contract. Only one respondent specifically stated that geese were sold on contract.

⁵These producers wanted to sell their geese but could not find a market.

turkey. Furthermore, the turkey is used promotionally to attract customers to the store--not so with the goose. The goose is competing for a corner of freezer space with ducklings, capons, and game hens. The goose is priced like game birds with big markups and sold as a delicacy. Goose will not be able to compete with turkey unless this is changed. Tables 7 and 8 show the differences in price of goose and turkey. The wholesale price of goose is nearly twice that of turkey (Table 7). The markup from wholesale to retail for goose is normally near 50¢ per pound compared to as low 17¢ per pound for turkey. The largest margin for turkey was 38¢ per pound for 8-14 pound hens in September (Table 8).

Table 7. Selected Wholesale Goose and Turkey Prices: Frozen, Ready-to-Cook, U.S. Grade A (Trucklot or Carlot).

Goose		Turkey	
Size (pounds)	\$ per pound	Size (pounds)	\$ per pound
(Sept. 26, 1979)		(Sept. 28, 1979)	
6-8	1.13 - 1.21	7-9 (Beltsvilles)	.72
8-10	1.15 - 1.26	8-14 (hens)	.64
10-12	1.18 - 1.31	14-20 (toms)	.64
12-14	1.28 - 1.36	28-30 (toms)	.79
> 14	Too Few	32-34 (toms)	.91
(Oct. 24, 1979)		(Oct. 26, 1979)	
6-8	1.09 - 1.15	7-9 (Beltsvilles)	.73
8-10	1.12 - 1.18	8-14 (hens)	.71
10-12	1.18 - 1.23	14-20 (toms)	.68
12-14	1.18 - 1.28	28-30 (toms)	.79
> 14	1.30	32-34 (toms)	.87
(Nov. 21, 1979) ¹		(Nov. 23, 1979)	
6-8	1.15 - 1.18	7-9 (Beltsvilles)	.77
8-10	1.20 - 1.23	8-14 (hens)	.72
10-12	1.25 - 1.27	14-20 (toms)	.72
12-14	1.30 - 1.32	28-30 (toms)	.80
> 14	1.35 - 1.37	32-34 (toms)	.88
(Dec. 21, 1979) ¹		(Dec. 21, 1979)	
6-8	1.10 - 1.13	7-9 (Beltsvilles)	.82-.85
8-10	1.15 - 1.17	8-14 (hens)	.72-.75
10-12	1.20 - 1.23	14-20 (toms)	.63
12-14	1.25 - 1.28	28-30 (toms)	.79
> 14	1.30 - 1.33	32-34 (toms)	.87

¹USDA reported too few geese in market channels for a reliable price estimate.

Sources: Poultry Market News, LPG&S Division, AMS, USDA.
 Urner Berry, "Producers Price - Current".
 Selected Issues Sept. - Dec. 1979.

Table 8. Retail Goose and Turkey Prices: Comparisons at New York.

Goose ¹		Turkey (Nationally Advertised)	
Pounds	\$ per Pound	Pounds	\$ per pound
(Sept. 26, 1979)			
6-8	1.79	Light, 3-9	.83
8-14	1.79	Hens, 9-16	1.015
> 14	1.79	Toms, 16 & up	.99
(Oct. 24, 1979)			
6-8	1.89	Light, 3-9	1.09
8-14	1.89	Hens, 9-16	.99
> 14	1.89	Toms, 16 & up	.99
(Nov. 21, 1979)			
6-8	1.69	Light, 3-9	Too Few
8-14	1.69	Hens, 9-16	.89
> 14	1.69	Toms, 16 & up	.85
(Dec. 19, 1979)			
6-8	1.556	Light, 3-9	.95
8-14	1.556	Hens, 9-16	.976
> 14	1.556	Toms, 16 & up	.90

¹Only one price quoted for all sizes, groupings are for comparative purposes only.

Source: Urner Berry, "Weekly Insiders Turkey Letter," Selected Issues. Sept. - Dec. 1979.

A further complication is the apparent preference of consumers for turkey or ham and a general resistance to change to a Christmas goose. Goose must be promoted and competitively priced before large quantities will be consumed, carryover reduced, and production increased.

Goose Production Rations

One of the major costs of goose production is feed. Many goose producers supplement pasture grazing with grain.

The most common form of feeding geese was to start them on commercial goose starter or a specially mixed starter concentrate for three to five weeks. Then pasture with free choice grain and finish them off with four to five weeks of corn. Producers of 200 or less geese exhibited a tendency toward a ration of all grain and/or concentrate. Nearly all larger producers pastured their geese.

In general the rations were similar but few rations were identical. This diversity of rations suggests several possibilities: (1) with the grazing phase on so called waste land, the producers fed their geese whatever grain was available on the farm, (2) a general lack of knowledge of goose nutritional needs may exist, and (3) least cost rationing techniques are not engaged in by goose producers.

The use of whatever grain is handy could lead to the sale of low quality geese. If the geese don't grade out, processors are forced to pay lower prices for all the geese they buy because grading is completed after processing. This cuts down on profit. As profit margins of producers become smaller, it is imperative that every effort be made to use the lowest cost ration that produces a high quality goose.

Goose Production Costs

Feed costs are a major item in goose production. The second most important production cost is the price of the gosling. This cost along with other costs of production are presented in Tables 9 and 10. Table 9 contains the budget data from a case study of a producer increasing his goose enterprise from 1000 to nearly 4000 geese over a four year period. Table 10 is a case study of a small producer. As can be seen in Table 9, feed costs were the major item of expense with the price of the gosling being second. The two costs together constituted just over 86% of operating costs and 84% of total cost per goose sold in 1979. Other production costs were minor by comparison. An exception is death loss. In 1976 for example, death loss was 29.4%. Goslings were bought at an average price of \$1.43 but the death loss raised the gosling cost to \$2.03 per bird. Most of the death loss is incurred in starting goslings. However, the feed costs also reflect death loss as predators were a problem and geese were lost after some feed costs were incurred. The death loss impact is seen by comparing total operating costs of \$5.90 per bird for 1976 with \$5.55 per bird for 1977 and feed and gosling costs per goose sold for the same two years.

The fixed costs of producing geese were low because the goose does not require much in the way of facilities. Old, fully depreciated buildings and equipment were used.

Receipts for geese were based on the sale of a 13 pound goose. Prices were very good in 1976 and 1977 at \$.61 and \$.63 per pound, respectively. These prices led to per goose returns to the operators labor and management of \$2.05 in 1976 and \$2.48 in 1977. In 1978 a larger than normal carryover occurred along with expanded production. Goose prices dropped to 53-55¢ early in the year and declined further to 40¢ per pound late in the year. The case study producer received 42¢ per pound and incurred a loss of 93¢ per bird sold. Carryover from 1978 led to similar market conditions in 1979. Prices began at 50-53¢ early in August but had dropped to the low 40's by early December. Processors quit buying geese late in the year to avoid large, costly inventories. The producer in this case study would have lost \$1.46 per goose sold if he could have sold them at 40¢ per pound. The case study producer, as well as other producers, were forced to have their geese dressed by processors for charges ranging from \$2.80 to \$3.50 per goose and then store the geese themselves. In the case study of the small producer presented in Table 10 processing and marketing costs were incurred because small producers often plan to sell direct to consumers in the holiday market. The large commercial producers cannot readily direct market geese in this manner as small town local markets are very quickly supplied with all their needs.

The small producer's largest production costs were marketing costs of dressing the geese and travel to do the selling. As with the commercial producer, the costs of feed and the goslings were predominant after the marketing costs were subtracted.

Table 9. Goose Production Costs - A Case Study of an Expanding Producer.

<u>Year</u>	<u>1976</u>	<u>1977</u>	<u>1978</u>	<u>1979</u>
Goslings (number)	1000	1400	3250	3900
Death Loss	29.4%	8.4%	9.7%	10.9%
<u>Operating Costs</u>				
		(\$/Goose Sold)		
Gosling ¹	\$2.03	\$1.75	\$2.10	\$2.02
Feed	3.25	3.12	3.40	3.50
Utilities	.02	.08	.05	.04
Veterinary/Medicine	---	.05	.02	.14
Repairs	.05	.01	.01	.01
Insurance	.05	.05	.05	.05
Overhead ²	.27	.25	.28	.29
Interest ³	.23	.24	.30	.36
Total Operating Costs	<u>\$5.90</u>	<u>\$5.55</u>	<u>\$6.21</u>	<u>\$6.41</u>
<u>Fixed Costs</u>				
Depreciation ⁴	\$.03	\$.10	\$.13	\$.12
Interest ⁴	.02	.03	.03	.02
Land and Taxes ⁵	.05	.03	.02	.01
Total Fixed Costs	<u>\$.10</u>	<u>\$.16</u>	<u>\$.18</u>	<u>\$.15</u>
Total Cost	<u>\$6.00</u>	<u>\$5.71</u>	<u>\$6.39</u>	<u>\$6.56</u>
<u>Receipts⁶</u>				
Sales	\$7.90	\$8.19	\$5.46	\$In Storage
Insurance	.15	---	---	---
Total Receipts	<u>\$8.05</u>	<u>\$8.19</u>	<u>\$5.46</u>	<u>\$ 6</u>
Return to Labor and Management	<u>\$2.05</u>	<u>\$2.48</u>	<u>\$-.93</u>	<u>\$?</u>

¹Adjusted for death loss.

²Overhead was calculated as 5% of operating costs.

³Interest was calculated on operating costs at 8% in 1976, 9% in 1977, 10% in 1978 and 12% in 1979.

⁴Depreciation and Interest on fixed investment for buildings and equipment was very low because a fully depreciated building and used equipment were used. Some equipment was added in each 1977 and 1978.

⁵Geese were produced on one acre of land with supplemental grazing of ditches, around buildings and lots and grain stubble. Land was valued at \$500 per acre and 8% interest charged.

⁶No market existed for this produces live geese in 1979. Geese were processed at \$3.50 per goose and put in cold storage. The going price for live geese late in 1979 was \$.40/lb. The return to labor and management at this price would have been \$-1.36 per live goose sold.

Table 10. Goose Production Costs - A Case Study of an Enterprise of Less Than 100 Geese, 1979.¹

<u>Operating Costs</u>		(\$/goose)
Gosling		\$2.35
Feed ²		1.20
Utilities		.20
Purchasing & Marketing		1.40
Repair		.20
Insurance		.05
Processing		3.25
Overhead (5% of op. costs)		.45
Interest (12% for 6 mo.)		.55
Total Operating Costs		<u>\$9.65</u>
<u>Fixed Cost³</u>		
Depreciation		.10
Interest (10%) ⁴		.10
Land and Taxes ⁴		.25
Total Fixed Costs		<u>.45</u>
Total Costs		<u>\$10.10</u>
<u>Receipts⁵</u>	10 lb. dressed goose @ \$1.20/lb.	<u>\$12.00</u>
Return to Labor and Management		<u>\$1.90</u>

¹Goslings were placed May 29 and processed and direct marketed to consumers on Dec. 6.

²Feed consisted of goose starter for 30 days, grazing native pasture for 130 days and ground corn for 30 days.

³Fixed costs are low because used equipment and a fully depreciated building were utilized in the production process.

⁴Geese grazed on approximately $\frac{1}{2}$ acre of waste land in the ditch along the farm driveway. Land was valued at \$2.50/A. with a 8% contract and $\frac{1}{4}$ was allocated to the geese and $\frac{3}{4}$ for driveway facilities.

⁵If these geese had been sold live at \$.40/lb, the receipts would have been \$5.60 (14 lb. geese) and return to labor and management \$-.50 as costs would be reduced by \$4.00 for processing and marketing.

Feed costs were lower for the small producer because sufficient quality pasture was available to preclude the use of supplemental grain feeding. The gosling price was higher because of the small quantity purchased.

This producer was able to obtain a \$1.90 profit per bird as they were sold early at \$1.20 per pound (dressed). Later in the season (late December) geese were advertised for as low as 85¢ per pound dressed. This would have resulted in a loss of \$1.60 per goose sold.

The major opportunities for reducing production costs come from least cost rationing and lowering the price of goslings. Least cost rationing can be accomplished if nutrient requirements and nutrient values of the producers feed are known. Gosling prices may be reduced if a cooperative hatchery was formed. This option would have to be investigated for economic feasibility. The third high-cost item was processing but little potential exists for decreasing this cost unless a cooperative processing plant can be established. Again, a complete feasibility study would be required before recommendations can be made.

Goose Production Problem Areas

Many individual problems were identified by goose producers which could be grouped into three areas: (1) nutrition, (2) breeding, and (3) marketing.

Goose Nutrition

The two areas of nutrition needs that were identified most often by respondents were (1) crippling and (2) nutrition requirements the last four to six weeks of production. Producers are concerned about producing a good quality goose and cutting down on grain costs. Research on ration or nutrient requirements with varying pasture qualities is needed. Also, research on the need for a grain finishing ration and the length of time the ration should be fed is needed.

Some other nutrition needs expressed by producers included (1) what are the nutritional requirements of geese produced in confinement?, (2) what rations may lead to greater ease of dressing geese?, and (3) how much corn is needed at different phases of the goose production cycle? The comments above and the existence of virtually a different ration for every producer suggests a need for goose nutrition research with some emphasis on nutrition designed to reduce crippling. It may also suggest that the little information that is available may not be getting to the producer.

Goose Breeding

Some of the comments on goose breeding needs were closely associated with comments on nutritional needs. For example, breeding to help reduce crippling emphasizes the lack of knowledge as to the cause of crippling. Closely aligned with crippling were comments suggesting breeding to develop stronger goslings which would cut down on death losses.

The two most often suggested breeding needs, however, concerned number and hatchability of eggs and size or conformation of bird produced. Suggestions about eggs were to develop geese that either lay more eggs or to develop geese that lay eggs all year. It would seem that given the current marketing pattern for geese (Thanksgiving and Christmas markets) that developing geese that lay all year round should receive less emphasis than laying larger numbers of eggs during the egg production cycle. If the goose develops into a commodity which is demanded year round, then placing geese at several times during the year would be beneficial. It would certainly help processors who must leave goose processing equipment idle most of the year with current production practices. Caution, however, is advised, as placing geese all year round would require investment in higher cost facilities (buildings) because geese are currently produced predominantly out-of-doors in the summer months.

Change in goose conformation has some interesting implications on competitiveness with other poultry products. A smaller goose may give a size alternative between the duckling of 3 to 4 pounds and the 8 to 10 pound goose currently marketed. Others suggested development of a meatier bird. Such a development would probably make the goose more competitive with the deeper breasted, meatier turkey. Research in these areas could be very fruitful for the goose industry.

Goose Marketing

Most producers say the biggest problem in the goose industry is marketing. The processor on the other hand may disagree and suggest that the biggest problem is over production. Still others suggest that lack of promotion at the retail level is the problem.

Farmers were asked if they were satisfied with current marketing conditions and only 13.6% answered yes. Over 70% are dissatisfied with current market arrangements. Over half of the dissatisfied farmers feel there is lack of competition in their markets. Other comments included (1) mark up is tremendous in the goose industry (margins too large); (2) need more forward contracting potential, possibly a futures contract; (3) need a longer time to market geese; (4) politicians should back goose industry to give it more awareness; (5) need more advertising and promotion of geese, promote nutritional qualities; (6) too many on the market; and (7) need a producer/processor cooperative.

Farmers also overwhelmingly indicated that marketing information is inadequate. Only 6.5% of producers surveyed received any market news reports. Farmers were asked if they received outlook or forward price information adequate for planning purposes. Only one producer felt that he had adequate information. A search to obtain planning information indicated nothing published was available.

Farmer suggestions for improvement were varied, but the largest number of respondents indicated a desire for outlook information similar to that given for grain and other livestock. Several others commented on the need for information on production, per capita demand (or consumption), reports on numbers, and carry over and market prices both current and projected.

Summary

Goose production appears to be a good enterprise selection for the family farm in South Dakota. The goose is one of the most efficient converters of feed to meat known to man. Its efficiency of conversion is not limited to supplements and grain. The goose can convert large quantities of grass and weeds to muscle. In addition, goose production is not labor intensive. Nevertheless, goose production in the United States fell from an estimated 8.5 million birds in 1890 to only one half million geese in 1974. Undoubtedly there are major problems encountered in the goose industry which caused this drastic reduction in numbers even with the apparent low costs of production.

This study attempted to determine some of these problems through a survey of South Dakota goose producers and processors. Specific goals of the study were to (1) determine production and nutritional procedures and problems associated with goose raising, (2) investigate marketing patterns and problems encountered, (3) estimate future production intentions, and (4) estimate goose production costs and revenues.

In order to reach these objectives, a mail survey of producers and a telephone survey of processors was conducted. Most of the results are tabular in nature with a limited amount of statistical analysis attempted.

Survey results indicate that goose production profits were good in 1976 and 1977 which prompted an expansion of production in 1978 and again in 1979. The expansion in production without a proportionate increase in demand for goose led to depressed prices and a substantial carry over of geese into 1980 which consisted of processor inventory and farmer storage of non-marketable geese.

Break-even prices for goose raisers were calculated at 50.4¢ a pound (live) so the late 1979 market prices of 40¢ a pound led to losses for producers. Because of these marketing problems, South Dakota producer intentions for 1980 are to produce six percent fewer geese than 1979 but this amount would still be 18 percent higher than 1978 production. Without increased demand for goose, this level of production plus the carry over would result in lower than break-even prices for 1980.

Goose producers were asked how they would react to marketing conditions of an assured market with promotional efforts to expand consumer demand. The response indicated the existing producers would increase production to over double the 1979 level of 225 thousand geese. New producers would also enter the industry if profits were again present and production could easily reach 600 thousand geese in South Dakota by 1981.

The greatest current industry problem as perceived by goose producers was marketing of the farm finished product and by processors as over production. Other major problems identified were loss of goslings, crippling, and seasonality of production and inability of the goose to compete with meatier competitors.

Research needs in nutrition include investigating the causes (and cures) of crippling, determining nutritional requirements of geese under confinement, finding rations which lead to easier dressing of geese and estimating general ration requirements throughout the entire production process. Other breeding research areas that were indicated to need investigation included crippling, extending the egg-laying season, increasing the number of eggs layed per goose and attempting to change conformation to produce a meatier bird.

Finally, to enhance goose marketing, promotional efforts must be stepped up. Information on current price and quantity conditions is needed by producers and processors in order to make future plans. And, more outlook information should be made available to all of the goose industry participants through channels similar to current grain and livestock outlook information systems.

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