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Marketing of Chickens from Producer to First Handler Washington, Oregon, and Utah 1948-1949

By Roice H. Anderson

A Western Regional Research Publication

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AGRICULTURAL EXPERIMENT STATION
UTAH STATE AGRICULTURAL COLLEGE, LOGAN

A Western Regional Research Publication

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MARKETING OF CHICKENS
FROM PRODUCER TO FIRST HANDLER,
WASHINGTON, OREGON, AND UTAH,
1948-49

By

ROICE H. ANDERSON

under direction of

Western Poultry Marketing Research Technical Committee

In cooperation with the Bureau of Agricultural Economics

and the Production and Marketing Administration

United States Department of Agriculture

Bulletin 354

AGRICULTURE EXPERIMENT STATION

UTAH STATE AGRICULTURAL COLLEGE

Logan Utah

June 1952

TABLE OF CONTENTS

	Page
Introduction	3
Objective of the study	3
Source of data and procedure	4
Enterprise organization and production practices	5
Type of producer	5
Egg producers	5
Broiler producers	8
Mixed egg and broiler producers	9
Breed of hens in laying flock	10
Other production practices	11
Marketing practices from producer to first handler	12
Definition of terms	12
Number of chickens marketed related to various factors	12
Class of chickens	12
Extent of dressing	13
Age when sold	14
Number sold per lot	15
Seasonal variations in sales	16
Grading practices	18
Prevalence of grading	18
Grade-out of chickens	19
Weighing practices	20
Where chickens were weighed	20
Method of weighing chickens	21
Outlet through which chickens were marketed	23
Importance of various outlets	23
Type of buyer related to grading	24
Type of buyer related to method and place of weighing chickens....	25
Comparison of weight, price, and value of chickens	26
Average weight, price, and value of chickens sold	27
Seasonal variation in sale value	29
Sale value and price related to grade	30
Sale value related to type of buyer	34
Competition in the marketing of chickens	35
Summary and conclusions	37

Marketing of Chickens from Producer to First Handler, Washington, Oregon, and Utah, 1948-49

Roice H. Anderson¹

INTRODUCTION

IN 1949 the receipts from eggs and chickens amounted to 8.6, 6.0, and 13.2 percent of the total cash receipts from farm marketings in Washington, Oregon, and Utah, respectively. About three fourths of these receipts were from sale of eggs and one fourth from the sale of chickens. Receipts from chicken sales, while less important than from eggs, amounted to about 21.5 million dollars in 1949 in the three states. As would be expected, considering the importance of egg production in the three states, many of the chickens sold are cull layers and other chickens produced incidental to the egg enterprise. While exact data are not available, about a third of the chicken receipts in the three states in 1949 were from birds produced exclusively for meat and two thirds from other chickens. The percentage of receipts from meat birds was slightly higher than this in Washington and lower in Utah.

Marketing agencies are not usually specialized as to type of chickens handled so it seemed desirable to study the marketing of all classes of chickens.

OBJECTIVES OF THE STUDY

The decision to undertake this study was based on two hypotheses: (1) that something less than a high level of competition existed in the marketing of chickens from producer to first handler in the three states of Oregon, Washington, and Utah, and (2) that producers were not satisfied with the system of marketing chickens. Producers felt that price variations at retail were not being reflected in prices paid at the farm level.

The primary objective of this study was to describe the methods and practices of marketing chickens from the producer to the first

¹Associate professor of agricultural economics and marketing, Utah State Agricultural College. Field data for Oregon were collected and coded for punching on IBM cards by Charles M. Fischer and for Washington by Harold G. Walkup.

handler as a basis for making an appraisal of the adequacy of the marketing system and if possible to evaluate the degree of competition in chicken buying.

A second objective was to describe the organization of poultry enterprises and some of the production practices that have a bearing on the marketing pattern as now constituted.

SOURCES OF DATA AND PROCEDURE ..

Information for this study was obtained by personal interview with a representative sample of 370 commercial chicken producers² in Washington, Oregon, and Utah in the fall of 1949. The sample of farms was drawn at random in such a manner that generalizations, within a minimum of error resulting from sampling, could be made for the population of commercial poultry farms in the three states. The population from which the sample was drawn was based on minor civil divisions of the U. S. Agricultural Census of 1945. These divisions were stratified by percent of chicken farms as compared with all farms and chicken numbers per farm reporting chickens. Minor civil divisions from each substratum were drawn at random and from a list of producers in each of the sample minor civil divisions the sample farms were drawn at random.³

Data were obtained concerning the production and marketing practices for the poultry year 1948-49 covering such items as number and kind of chickens produced, disposition of chickens, prices received, as well as grading and weighing practices used by the buyer. The poultry year covered was not uniform from farm to farm but for each farm included in the sample the period from date of housing pullets in the fall of 1948 to one year later was considered as the poultry year.

These data were punched on IBM cards and analyzed by the cross tabulation method. Two cards were used. The unit for analysis was the producer on one card and each lot of chickens sold was the unit for analysis on the other. Data from the producer cards were analyzed to describe the organization of the poultry enterprise and production practices and will be presented in the first part of this report. The sales lot cards provide the basis for the marketing section of this report.

²Commercial producers are defined as those with 100 or more laying hens. No limit was placed on broiler producers.

³For a detailed description of the sampling procedure used in this study see Charles M. Fischer. Techniques and methods used in Western Regional Poultry Project WM-7. Western Farm Econ. Assoc. Proc. 1950, p. 82.

ENTERPRISE ORGANIZATION AND PRODUCTION PRACTICES

TYPE OF PRODUCER

THE PRODUCERS interviewed were classified according to whether they were egg producers, broiler producers, or mixed broiler and egg producers. Egg producers were those who produced no chickens exclusively for meat. If cockerels were sold incidental to the production of laying flock replacements, they were classified as egg producers. Broiler producers were those who produced and sold at least one flock of chickens during the year for meat purposes. Mixed egg and broiler producers kept a flock of laying hens and produced at least one flock of birds for meat.

Of the producer schedules taken, by far the greatest proportion was classified as egg producers representing 75.6, 62.7, and 81.3 percent of the producers in Washington, Oregon, and Utah, respectively (table 1). The proportion of broiler producers was about

Table 1. *Distribution of schedules in sample by type of producer, various Western States 1948-49*

Type of producer	Schedules in sample			Percent of total		
	Washington <i>number</i>	Oregon <i>number</i>	Utah <i>number</i>	Washington <i>percent</i>	Oregon <i>percent</i>	Utah <i>percent</i>
Egg	65	94	109	76	63	81
Broiler	3	11	6	3	7	5
Mixed egg and broiler	18	45	19	21	30	14
Total	86	150	134	100	100	100

twice as high in the Oregon sample as the other two states and represented 7.3 percent of the total schedules taken in that state. Mixed egg and broiler producers were also relatively prevalent in Oregon representing 30 percent of that state's total. In Utah 14.2 percent and in Washington 20.9 percent were classified as mixed egg and broiler producers.

Egg Producers

The organization of the chicken enterprise of the average egg producer in the three states reveals some rather significant differ-

Table 2. *Organization of poultry enterprise, egg producers in various Western States 1948-49*

	Unit	Wash.	Oregon	Utah
Laying flock:				
Number of farms	number	65	94	109
Number of old hens from previous year	number	119	189	302
Number of pullets added	number	442	664	786
Percent pullets	percent	78.8	77.8	72.2
Total number of hens housed	number	561	853	1,088
Death loss (percent of number housed)				
	percent	11.8	16.0	17.9
Number eaten	number	22	15	16
Number sold for layers	number	9	6	64
Number sold for meat	number	267	482	506
Number carried to following year	number	197	214	307
Sold for meat per 100 housed	number	48	56	47
Flocks raised:				
Percent of growers raising chicks	percent	97	88	87
Flocks started per grower	number	1.68	.98	.98
Number of chicks started per grower	number	1,096	925	984
Number of chicks started per flock	number	654	945	1,002
Death loss (percent of number started)				
	percent	12.2	13.2	9.6
Number kept or sold for laying	number	899	870	986
Number sold for meat per 100 started	number	6	2	2
Productive man-work-units per enterprise*	number	121	160	200

*Productive man-work-units, a measure of labor requirement, was calculated by adding the products of the number of each class of chicken multiplied by the following factors: hens .15, pullets raised .04, cockerels or broilers raised .015, and fryers .02.

ences and some similarities (table 2). The chicken enterprises were largest in Utah where on the average producers started the poultry year with 1,088 hens and started 984 chicks during the year for a total of 200 productive man-work-units. Oregon producers kept 853 laying hens, started 925 chicks for 160 productive man-work-units, and Washington producers kept 561 laying hens and started 1,096 chicks for 121 man-work-units.

The laying flocks of egg producers in Washington and Oregon were composed of almost 80 percent pullets whereas in Utah about 72 percent were pullets. The death loss of laying hens during the year was highest in Utah, being about 18 percent of the number housed. Death loss averaged 16 percent in Oregon and less than 12 percent in Washington.

The practice of selling hens for laying purposes seemed to be more prevalent in Utah than in the other states. There were some producers in Utah whose entire operation was based on keeping old hens, which were purchased from other producers. On an average the Utah egg producers sold 64 hens for laying purposes compared with 6 for Oregon and 9 for Washington.

The number of hens sold for meat per 100 housed was similar for the three states, 48 in Washington, 56 in Oregon, and 47 in Utah. While hens culled from laying flocks were an important source of chicken meat, only about one out of two birds housed in the fall was sold for this purpose. Death loss, farm consumption, sales for laying, and carryover to following year account for about half of the hens started.

Ninety-seven percent of the egg producers in Washington raised their own chicks for replacements, whereas 88 percent of the Oregon and 87 percent of the Utah producers raised their replacements in 1948-49. The Washington egg producers raised an average of 1.68 flocks per grower raising chicks compared with about one per grower in Utah and Oregon.

The number of birds started per producer was similar for the three states averaging between 1,047 and 1,142. The number started per flock was smaller in Washington however because of the larger number of flocks started per grower. The average size of flock started was near 1,000 chicks in Oregon and Utah, but was only 654 in Washington.

The death loss in percent of number started was 9.6 in Utah, 12.2 in Washington, and 13.2 in Oregon. Among the three states, Utah egg producers had the lowest death loss for chicks but the highest for hens.

In Oregon and Utah only 2 birds were sold for meat per 100 chicks started and 6 were sold for meat from Washington flocks, indicating the prevalent practice by egg producers of starting sexed female chicks. In the three states combined 93.9 percent of the chicks started by egg producers were sexed females, 5.5 percent were mixed male and female, and only .6 percent were sexed males. Ninety-one percent of the chicks started by egg producers

were day old chicks while 9 percent were started prior to purchase. Started chicks varied in age from 1 to 26 weeks, but the majority were 8 weeks or younger.

Broiler Producers

Producers classified as broiler producers started 7,750 chicks in Oregon, 6,167 in Utah, and only 1,050 in Washington (table 3). Producers in Oregon started an average of 6 flocks which averaged 1,292 birds each, Utah growers started 1.67 flocks which averaged

Table 3. *Organization of poultry enterprise of broiler producers in various Western States 1948-49*

	Unit	Wash.	Oregon	Utah
Number of farmers	number	3	11	6
Number of flocks started	number	3	66	10
Number of flocks per grower	number	1.00	6.00	1.67
Chicks started per grower	number	1050	7750	6167
Chicks started per flock	number	1050	1292	3700
Death loss (percent of number started)	percent	9.5	8.6	8.1
Number kept or sold for laying	number	165	74	0
Number sold for meat per 100 started	number	72	90	92
Productive man-work-units per enterprise		39	148	113

3,700 birds, and the Washington producers started only one flock per grower. Many broiler producers in Oregon followed the practice of starting a few chicks regularly throughout the year, whereas in the other two states the usual practice was to produce only one or two flocks during the year.

Death loss of chicks among broiler producers was similar for the three states varying only from 8.1 percent in Utah to 9.5 percent in Washington. The average death loss of chicks was considerably lower for broiler producers than for egg producers in each of the states.

When measured by productive man-work-units, the broiler producers in Oregon were about 30 percent larger than those in Utah and almost four times as large as those in Washington. By this same measure the broiler producers were somewhat smaller than the egg producers in each of the states.

Even though the primary objective of broiler production is

to sell birds for meat, some producers in Oregon and Washington either sold or kept some pullets for laying. The relatively large number of chicks kept or sold for laying by broiler producers in Washington resulted in a smaller number being sold for meat per 100 started.

In the three states, the chicks started by broiler producers were 95 percent of mixed sex, and 5 percent were sexed males. Chicks started by these producers were all day old at time of starting.

Mixed Egg and Broiler Producers

The mixed egg and broiler producers were somewhat smaller in size than the egg producers in Oregon and Utah, but were larger

Table 4. *Organization of poultry enterprise of mixed egg and broiler producers, various Western States 1948-49*

	Unit	Wash.	Oregon	Utah
Laying flock:				
Number of farms	number	18	45	19
Number of old hens from previous year	number	132	60	186
Number of pullets added	number	764	366	534
Percent pullets	percent	85.3	85.9	74.2
Total number of hens housed	number	896	426	720
Death loss (percent of number housed)	percent	13.6	12.0	17.8
Number eaten	number	9	10	14
Number sold for layers	number	56	----	105
Number sold for meat	number	536	274	355
Number of old hens to following year	number	173	91	118
Sold for meat per 100 housed	number	60	64	49
Flocks raised:				
Percent of growers raising chicks	percent	100	100	100
Number of flocks per grower	number	1.95	1.71	1.89
Chicks started per grower	number	1726	1275	1809
Chicks started per flock	number	884	745	955
Death loss (percent of number started)	percent	9.5	11.8	9.7
Number kept or sold for laying	number	816	595	679
Number sold for meat per 100 started	number	44	39	51
Productive man-work-units per enterprise	number	189	98	148

in Washington (table 4). When measured by productive man-work-units these producers in Utah were about three fourths as large as the egg producers, in Oregon they were about 60 percent as large, and in Washington they were more than 50 percent larger.

The proportion of pullets in the laying flocks of mixed egg and broiler producers in each of the states was higher than was true of the egg producers. More than 85 percent of the hens in Oregon and Washington flocks were pullets compared with 74 percent in Utah flocks.

In Oregon the death loss of hens was about 4 percent lower in flocks of mixed egg and broiler producers than in those of egg producers. In Washington the death loss was about 2 percent higher, and in Utah it was almost identical for the two types of producers.

The number of hens sold for meat per 100 housed was slightly higher for mixed egg and broiler producers than for egg producers. This was because of the smaller number kept the second year for layers and the lower death rate, particularly in Washington and Oregon.

The number of flocks of chicks raised by these producers varied from 1.71 per grower in Oregon to 2.0 in Washington, and the average size of flock started varied from 745 in Oregon to 995 in Utah. The mixed egg and broiler producers sold about 40 to 50 birds for meat per 100 started, whereas egg producers sold only 2 to 6 for this purpose.

Sixty-five percent of the chicks started by mixed egg and broiler producers in the three states were unsexed, 28 percent were sexed females, and 7 percent were sexed males. About 97 percent of the chicks started by these producers were day old, and 3 percent were started prior to purchase.

BREED OF HENS IN LAYING FLOCKS

The breed of hens in the laying flocks determines the class of hen which will be marketed. The Leghorn was the predominant breed on farms in each of the three states, but this breed was much more important in Utah than in the other states (table 5). More than 99 percent of the hens sold for meat from flocks in Utah were Leghorns, 55.5 percent and 56.2 percent of the sales in Oregon and Washington, respectively, were of this breed. New Hampshires were second in importance and in Washington and Oregon accounted for 21.2 percent and 14.9 percent, respectively, of the chickens sold. In Utah less than 1 percent of the hens were New

Table 5. *Proportion of hens sold for meat from flocks of various breeds in Washington, Oregon, and Utah 1948-49*

Breed of hens	Washington	Oregon	Utah
	<i>percent</i>	<i>percent</i>	<i>percent</i>
Leghorn	56.2	55.5	99.4
New Hampshires	21.2	14.9	0.6
Rhode Island Red	4.1	10.8	.....
Other single breeds	0.4	0.1	.....
Mixed light breeds	0.7	0.1	.....
Mixed heavy breeds	3.2	2.4	.....
Mixed light and heavy	14.2	16.2	.....

Hampshires, and these and Leghorns were the only breeds represented.

About 10 percent of the hens sold from Oregon farms were Rhode Island Reds, although only about 4 percent in Washington were of this breed. About a fifth of the hens sold from Washington and Oregon flocks were of mixed breeds.

OTHER PRODUCTION PRACTICES

Other production practices such as the month pullets were housed, the month chicks were started, proportion of old hens kept in laying flocks, and death losses of both hens and chicks have some bearing on the number and seasonality of chickens marketed. Since an analysis of sales is presented later in this report, no attempt will be made here to analyze these production practices in detail. A few facts will be presented, however, to aid the reader in better understanding the reasons for the seasonality of chicken sales.

Since cull layers sold for meat and cockerels produced as a joint product with replacement pullets are a by-product of the egg enterprise, no attempt is made by the producers to adjust the sales of these birds to consumer demand for them. If done profitably cull layers are sold as soon after they become culls as they can practically be detected and separated from the laying flock.

Producers classified as egg producers in the three states started 83 percent of their chicks in the months of February, March, and April. Most of the cockerels produced jointly with these laying flock replacements were sold for meat from 8 to 12 weeks after the chicks were started. This resulted in heavy marketing of these birds in April, May, and June. The pullets from these flocks were ready for laying in August, September, and October and at that

time many of the old hens not previously culled from the laying flock were marketed.

Birds produced primarily for meat have a somewhat different seasonal pattern of production as will be shown later in this report.

MARKETING PRACTICES FROM PRODUCER TO FIRST HANDLER

INFORMATION on prices, weights, grades, and various practices in marketing was obtained for each lot of chickens sold by the producers interviewed. Detailed sales data were obtained on about three fourths of the total chickens sold by producers interviewed in Washington and Oregon and on 83 percent of those interviewed in Utah. While it was sometimes impossible to obtain complete information on number, weight, and prices by grades, an estimate was obtained from producers on the value received per head for all lots sold. Chicken sales form the basis for this section and the lot sold is the unit used for analysis rather than the producer.

DEFINITION OF TERMS

Light hens—All egg-producing type hens primarily of the Leghorn breed but other egg-type breeds are included.

Heavy hens—All hens of meat or dual purpose breeds and cross-breeds.

Broilers—Young chickens regardless of age or weight of egg-type breeds sold for meat purposes. Primarily composed of cockerels produced jointly with pullets for laying flock replacements.

Fryers—Young chickens regardless of age or weight of heavy or crossbreeds produced exclusively for meat.

Dressed—Chickens slaughtered for human food with head, feet, and viscera intact and from which the blood and feathers have been removed.

Ready-to-cook—Dressed chickens, whole or cut up, from which head, feet, and viscera have been removed.

NUMBER OF CHICKENS MARKETED RELATED TO VARIOUS FACTORS

Class of Chickens

For purposes of this study chickens sold were grouped into four classes—light hens, heavy hens, fryers, and broilers as defined above. Because of variation in age, weight, price, and purposes

for which produced, it was meaningless to group these classes together for study, therefore, in most of the remaining discussion the four classes of chickens will be analyzed separately.

The number and distribution of all chickens sold from the farms enumerated in the three states according to class of chickens are shown in table 6. Light hens were the most important class

Table 6. *Number and distribution of all chickens included in sample by class of chickens, Washington, Oregon, and Utah 1948-49*

Class of chickens	Chickens by states					
	Wash.	Oregon	Utah	Wash.	Oregon	Utah
	<i>number</i>	<i>number</i>	<i>number</i>	<i>percent</i>	<i>percent</i>	<i>percent</i>
Light hens	12,463	25,639	45,782	36	22	48
Heavy hens	3,681	14,272	288	10	12	*
Fryers	17,257	74,547	39,965	50	63	42
Broilers	1,338	3,873	9,252	4	3	10
Total	34,739	118,331	95,287	100	100	100

*Less than 0.5 percent.

sold from Utah farms representing 48 percent of total number sold. This class accounted for 36 percent of the chickens sold from Washington farms and 22 percent of those sold from Oregon farms. Heavy hens represented 10 and 12 percent, respectively, of sales from Washington and Oregon farms, but less than 0.5 percent of sales from Utah farms. Sales of fryers accounted for one half of the chickens sold from Washington farms, 63 percent of sales from Oregon farms, and 42 percent of sales from Utah farms. Broiler sales were relatively unimportant as compared with other classes particularly in Oregon and Washington.

Extent of Dressing

About 85 percent of the chickens sold from farms in Oregon were sold alive, and more than 95 percent in Washington and Utah were sold alive (table 7). All of the remainder were sold dressed except in Oregon where 6.9 percent were sold ready-to-cook.

In the three states combined 96 percent of the chickens sold on a dressed basis were fryers, 2 percent were light hens, and 1

14. UTAH AGRICULTURAL EXPERIMENT STATION BULLETIN 354

Table 7. *Distribution of all classes of chickens sold from producers to first buyers related to form in which sold, Washington, Oregon, and Utah 1948-49*

Form	Chickens sold by states		
	Washington	Oregon	Utah
	<i>percent</i>	<i>percent</i>	<i>percent</i>
Live	96.9	84.6	95.2
Dressed	3.1	8.5	4.8
Ready-to-cook	.....	6.9	.....

percent each were broilers and heavy hens. Seventy-one percent of these dressed chickens was sold to retailers, 15 percent direct to consumers, and 14 percent through brokers.

Because of the relatively small number of chickens sold from farms on a dressed basis the remainder of this report will deal only with chickens sold live basis.

Age When Sold

The age at which broilers and fryers were sold varied from 8 to 28 weeks, but in the three states combined about half were sold

Table 8. *Number and distribution of lots of fryers and broilers sold by age when sold, Washington, Oregon, and Utah, 1948-49*

Age in weeks	Lots sold by states				Percent of total 3 states
	Washington	Oregon	Utah	Total 3 states	
	<i>number</i>	<i>number</i>	<i>number</i>	<i>number</i>	<i>percent</i>
8	2	1	1	4	1.1
9	0	9	1	10	2.9
10	2	22	1	25	7.1
11	2	48	3	53	15.1
12	7	98	18	123	35.2
13	7	7	7	21	6.0
14	5	24	1	30	8.6
15	5	3	6	14	4.0
16	0	20	2	22	6.3
17	4	2	7	13	3.7
18	0	2	1	3	0.9
19	1	0	4	5	1.4
20 or more	6	19	2	27	7.7
Total lots	41	255	54	350	100.0

Table 9. *Proportion of fryers and broilers sold and weight per bird related to age when sold, various Western States 1948-49*

State	Age when sold			
	8-12 weeks	More than 12 weeks	8-12 weeks	More than 12 weeks
	<i>percent</i>	<i>percent</i>	<i>pounds per bird</i>	
Washington	37	63	3.20	3.35
Oregon	88	12	3.03	3.81
Utah	40	60	3.50	4.29

at 11 and 12 weeks of age, about 10 percent at less than 11 weeks, and about 40 percent were more than 12 weeks of age (table 8).

A larger proportion of the broilers and fryers sold from Oregon farms were sold at 12 weeks or less than in the other two states (table 9). Eighty-eight percent of the broilers and fryers sold from Oregon farms were 12 weeks or less and 12 percent were more than 12 weeks. About 60 percent of those sold from Washington and Utah farms were more than 12 weeks of age.

Number Sold Per Lot

The size of lot sold varied considerably among the various classes of chickens and also among the three states (table 10). The number of chickens sold per lot in Oregon and Washington averaged from 94 to 137 for different classes compared with 293 sold

Table 10. *Number of chickens sold per lot related to class of chickens, various Western States 1948-49*

Class of chickens	Number sold per lot		
	Washington	Oregon	Utah
	<i>number</i>	<i>number</i>	<i>number</i>
Light hens	124	102	293
Heavy hens	137	94	.....
Fryers	286	311	1,340
Broilers	216	182	537

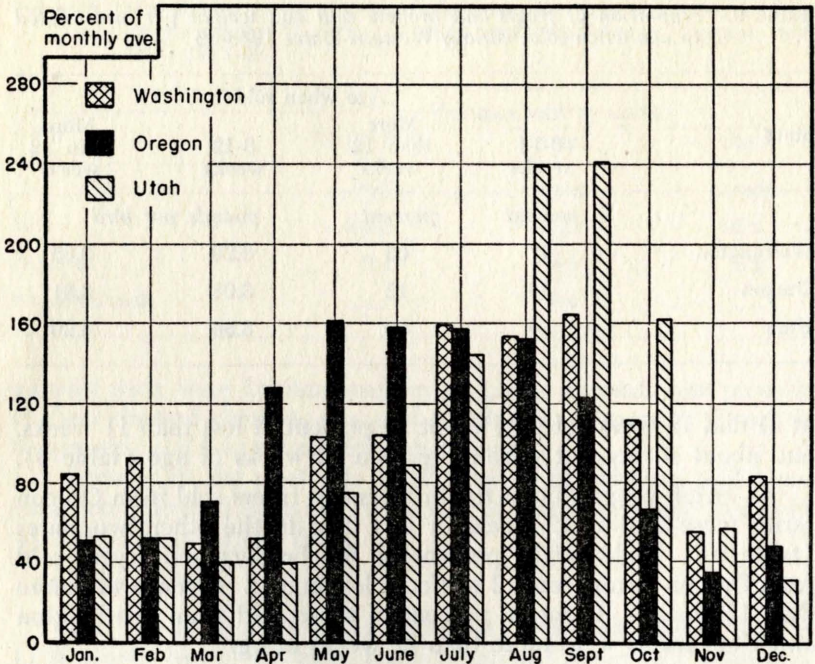


Fig. 1. Monthly variations in sales of all hens for meat purposes, Washington, Oregon, and Utah, 1948-49

per lot in Utah. Fryers and broilers were sold in lots which averaged about twice as large as the lots of hens.

As previously shown the hen flocks on Utah farms were somewhat larger than those on Washington and Oregon farms. This together with the fact that Utah producers seemed to cull their laying flocks less frequently accounted for the relatively large number sold per lot.

Broilers and fryers were produced in Utah in relatively large flocks started at the same time and were consequently sold in large lots. Many Oregon producers, on the other hand, started relatively small flocks frequently, resulting in a smaller number sold per lot even though the number produced per grower was just as large.

Seasonal Variations in Sales

Sales of hens for meat purposes from Utah farms were pyramided in August and September (fig.1). It was during these

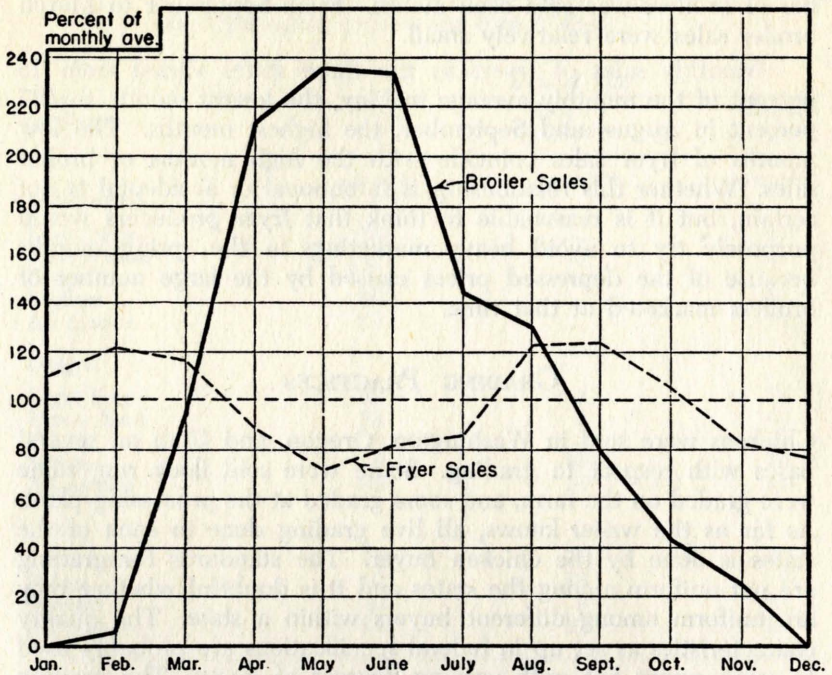


Fig. 2. Monthly variations in sales of broilers and fryers, Washington, Oregon, and Utah, 1948-49

months that producers culled their flocks heavily or shipped all their old hens to market to make room in their laying houses for the new pullets. In August and September about two and one-half times the monthly average number were sold.

Sales of hens for meat were less variable by months in Washington and Oregon than in Utah indicating that growers in these states cull their flocks more frequently during the year. Sales of hens from Oregon farms were above average for April to September, inclusive. Months of large sales of hens from Washington farms were July, August, and September when sales were about 50 percent above the monthly average.

Monthly sales of fryers were much less variable than broiler sales in the three states (fig. 2). Since most broilers are produced as a joint product with the production of pullet replacements, most of them are marketed in the spring of the year. In April, May, and June more than twice the monthly average num-

ber of broilers was sold each month. From September to March broiler sales were relatively small.

Monthly sales of fryers in the three states varied from 75 percent of the monthly average in May, the lowest month, to 125 percent in August and September, the highest months. The low months of fryer sales coincide with the high months of broiler sales. Whether this relationship is intentional or accidental is not certain, but it is reasonable to think that fryer producers would purposely try to avoid heavy marketings in the spring months because of the depressed prices caused by the large number of broilers marketed at that time.

GRADING PRACTICES

Chickens were sold in Washington, Oregon, and Utah on several bases with respect to grading. Some were sold flock run, some were graded on the farm, and some graded at the processing plant. As far as the writer knows, all live grading done in each of the states is done by the chicken buyer. The standards for grading are not uniform among the states and it is doubtful whether they are uniform among different buyers within a state. The quality characteristics as set up in federal specifications are probably used to some extent but with varying degrees of laxity. The grading is usually done rapidly, the buyer running his hand down the breast of the chicken to determine degree of fleshing and finish as well as presence of deformities such as crooked or dented breastbone. In the case of fryers certain birds may be culled out by sight and put in lower grades because of obvious defects such as bare backs.

Prevalence of Grading

The practice of grading live chickens as a basis of determining their value at the farm level was more prevalent in Utah than in Oregon and Washington. About a fourth of all chickens sold in Utah were sold flock run, 60 percent were graded at the farm, and 16 percent at the plant (table 11). In Oregon 55 percent of all classes were sold flock run, 4 percent graded at the farm, and 41 percent graded at the plant. In Washington only 9 percent were graded and these were all graded at the plant.

Some variations existed in the percentage sold flock run among the various classes of chickens. In Oregon and Washington light hens and broilers were sold on a graded basis to a greater extent

Table 11. *Proportion of various classes of chickens sold relative to bases of sale, Washington, Oregon, and Utah 1948-49*

Class of chickens	Base of sale		
	Flock run	Graded at farm	Graded at plant
	<i>percent</i>	<i>percent</i>	<i>percent</i>
<i>Washington</i>			
Light hens	77	----	23
Heavy hens	98	----	2
Fryers	100	----	----
Broilers	88	----	12
All classes	91	----	9
<i>Oregon</i>			
Light hens	21	3	76
Heavy hens	53	2	45
Fryers	74	3	23
Broilers	6	30	64
All classes	55	4	41
<i>Utah</i>			
Light hens	22	55	23
Fryers	13	78	9
Broilers	80	9	11
All classes	24	60	16

than were the other classes. In Utah 80 percent of the broilers were sold flock run but only 13 percent of the fryers and 22 percent of the light hens were sold on this basis.

Grade-Out of Chickens

The grade-out of chickens graded (percent in various grades) in the three states gives some indication of the standards used in grading. In Washington 51 percent of the light hens graded were second grade and 4 percent were third grade indicating the use of much stricter standards than in Oregon and Utah where only 24 and 21 percent of light hens, respectively, were graded below first grade (table 12). This deduction assumes that the level of quality in the three states as well as other factors remained the same.

The grading of fryers and broilers in Utah seemed to be extremely superficial since practically 100 percent of these birds were placed in first grade. In many cases, however, producers keep those birds graded below first grade for their own use since such

Table 12. *Grade-out of various classes of chickens, Washington, Oregon, and Utah 1948-49*

Class of chickens	Proportion graded	Percent of graded chickens in various grades		
		1st	2nd	3rd
	<i>percent</i>	<i>percent</i>	<i>percent</i>	<i>percent</i>
<i>Washington</i>				
Light hens	23	45	51	4
Heavy hens	2	82	18	0
Fryers	0	---	---	---
Broilers	12	64	34	2
<i>Oregon</i>				
Light hens	79	76	19	5
Heavy hens	47	80	16	4
Fryers	26	85	13	2
Broilers	94	96	4	..
<i>Utah</i>				
Light hens	78	79	16	5
Fryers	87	99	0	1
Broilers	20	100	0	0

defects as crooked breasts and bare backs do not materially decrease their value for home use.

WEIGHING PRACTICES

Most of the chickens sold in Washington, Oregon, and Utah for meat purposes are sold on a weight rather than a per head basis. Difficulties arise in accurate determination of weights because of improper adjustment and supervision of scales used and the nature of the product to be weighed. Chickens are relatively small and if weighed individually considerable error could result from rounding the weights; and if weighed in groups, errors may arise in subtracting tare of the crates or other containers used.

Where Chickens Were Weighed

Sixty percent of the birds sold from Washington farms were weighed at the farm and 40 percent at the market which in most cases was the processing plant (table 13). Weighing at the farm was the usual practice in Utah, and in Oregon the greatest proportion of the birds sold was weighed at market.

Table 13. *Proportion of various classes of chickens weighed at farm and at market, Washington, Oregon, and Utah 1948-49*

Where weighed	Class of chickens				
	Light hens	Heavy hens	Fryers	Broilers	All classes
	percent	percent	percent	percent	percent
<i>Washington</i>					
At farm	45	73	68	87	60
At market	55	27	32	13	40
<i>Oregon</i>					
At farm	9	13	55	27	36
At market	91	87	45	73	64
<i>Utah</i>					
At farm	63	----	100	67	79
At market	37	----	----	33	21

In each of the states there was a tendency to weigh larger proportions of fryers and broilers and smaller proportions of hens at the farm. This may be because during much of the year hens are sold in small lots culled from the laying flock and delivered by the producer to the processing plant. Fryers and broilers on the other hand are sold in larger lots and the buyer usually picks them up at the farm. Although information was not specifically obtained, it is believed that most of the chickens weighed at the market were delivered by the producer and those weighed at the farm were picked up there by the buyer.

Data are not available on the degree of accuracy in weighing at the farm relative to the plant, but it seems apparent that the transporting of scales over rough roads to the farm and the use of smaller and possibly less accurate scales would seem to make farm weighing less accurate.

Method of Weighing Chickens

Less variation was found among the three states in the method of weighing than in the place. The prevalent practice in each of the states was to weigh birds by the coop or crate and the proportion of birds weighed by this method varied from 77 percent in Washington to 87 percent in Oregon (table 14).

In Oregon and Utah, 8 and 14 percent of the birds, respectively, were weighed by the battery while none of the birds in Washington

Table 14. *Proportion of various classes of chickens sold related to method of weighing, Washington, Oregon, and Utah 1948-49*

Method of weighing	Light hens	Heavy hens	Fryers	Broilers	All classes
	percent	percent	percent	percent	percent
<i>Washington</i>					
Bird	7	4	8	65	13
Coop	87	90	70	35	77
Load	6	6	22	....	10
Battery	....	....	....	....	....
<i>Oregon</i>					
Bird	1	2	3	....	3
Coop	99	92	83	63	87
Load	....	6	*	37	2
Battery	....	....	14	....	8
<i>Utah</i>					
Bird	1	....	4	28	5
Coop	74	....	96	50	81
Load	*	....	....	....	*
Battery	25	....	....	22	14

*Less than 0.5 percent.

were weighed by this method. Birds weighed by the battery were all weighed at the plant since batteries are cages for holding birds prior to killing. A relatively larger percentage of the birds from Washington farms were weighed individually and by the load than was true in the other two states. Only 2 percent of the Oregon birds were weighed by the load and this method was negligible in Utah.

As with place of weighing, the method of weighing chickens introduces possibility of errors. Stories are told by many chicken buyers, but of course admitted by none, of practices of manipulating weights. Methods of weighing which involve tare, as most methods do, can be inaccurate if droppings adhering to crates and truck are weighed for tare and later bounced or knocked off prior to weighing of the birds. If birds are weighed individually, the relatively small size of unit results in errors arising from rounding fractions of pounds.

While stories of weight manipulation are not based on facts, at least as far as this study is concerned, it is important for both buyer and seller to be conscious of the inaccuracies which are possible and select the method of weighing which will be most accurate and still be practical.

OUTLET THROUGH WHICH CHICKENS WERE MARKETED

The classification of buyers used in this study was based primarily on the functions performed. The processors were further divided, however, on the basis of ownership into independently operated and cooperatively operated processors. While all the buyers included in the classification purchased chickens direct from producers, they differed in the functions which they performed. The primary function performed by hucksters was that of assembly, buying chickens from farmers and selling them to processing plants. Processors in addition to assembly, processed and packaged the birds and in many instances sold them direct to retail stores and restaurants, thus performing the function of the wholesaler. Retail stores and restaurants purchased chickens from the producer and sold them to ultimate consumers while consumers, as used in this classification, purchased from producers for their own consumption.

Importance of Various Outlets

The most important outlet for the marketing of chickens from farms in Utah was the cooperative processor, who handled 65 percent of all chickens in 1948-49 (table 15). In Oregon the independent processors were far the most important outlet and they handled 89 percent of the total. In Washington, hucksters, independent processors, and cooperative processors each handled about 30 percent of that state's chickens. Sales to ultimate consumers were relatively important in Washington and Utah where 9 and 6 percent, respectively, were sold to this outlet. Only 2 percent of the chickens sold live basis from Oregon farms were sold to ultimate consumers but a larger proportion, 4 percent were sold to retail stores and restaurants than in the other two states.

With the exception of Washington the proportion of fryers handled by hucksters was relatively small. This may be accounted for by the fact that many fryers are produced under contract between producer and processor. Hucksters who have no facilities for dressing chickens do not follow the practice of contracting for supply of fryers. Cooperative processors in Utah handle a relatively large number of fryers whereas these processors in the other two states handle a relatively large proportion of light hens⁴.

⁴In Oregon only one cooperative purchased chickens during the period studied, and it discontinued such operation after a few months.

Table 15. *Proportion of various classes of chickens marketed through various outlets, Washington, Oregon, Utah 1948-49*

State and outlet	Total number by class				
	Light hens	Heavy hens	Fryers	Broilers	All classes
	percent	percent	percent	percent	percent
<i>Washington</i>					
Huckster	25	51	29	5	30
Independent processor	16	38	54	6	29
Cooperative processor	51	6	3	12	30
Retail store and restaurant	....	1	1	....	*
Consumer	....	4	13	77	9
Through broker	8	....	....	....	2
<i>Oregon</i>					
Huckster	2	10	1	12	3
Independent processor	89	85	90	79	89
Cooperative processor	5	*	1	....	2
Retail store and restaurant	3	4	5	9	4
Consumer	1	*	3	....	2
<i>Utah</i>					
Huckster	19	....	2	1	10
Independent processor	18	....	9	48	18
Cooperative processor	57	....	85	22	65
Retail store and restaurant	....	....	....	14	1
Consumer	6	....	4	15	6

*Less than 0.5 percent.

Many cooperatives in these states were organized originally as egg marketing cooperatives and were important in processing the cull layers as meat. More recently some of them have expanded their poultry departments to include the processing of birds grown exclusively for meat.

Type of Buyer Related to Grading

The proportion of chickens purchased on a basis of grade varied somewhat by type of buyer. In all three states cooperative processors followed the practice of buying on a graded basis to a greater extent than other buyers (table 16). In Oregon and Utah practically all purchases by cooperatives were on a grade basis whereas in Washington, where less total grading was done, 28 percent of the chickens handled by cooperative processors were graded. The practice of grading by cooperatives is probably an attempt to pay each producer equitably for the quality of product which he has to sell. It is doubtful whether grading of cull laying

Table 16. *Proportion of all classes of chickens purchased on basis of grade related to type of buyer, Washington, Oregon, Utah 1948-49*

Type of buyer	Chickens purchased on basis of grade		
	Washington	Oregon	Utah
	<i>percent</i>	<i>percent</i>	<i>percent</i>
Huckster	1	47	79
Independent processor	5	47	24
Cooperative processor	28	100	98
Retail store or restaurant	0	13	0
Consumer	<u>0</u>	<u>0</u>	<u>0</u>
All buyers	9	45	76

hens will have any effect on improving the quality produced since these chickens are sold as a by-product of the egg enterprise. It is unlikely that it would be profitable or even possible in many cases to influence quality of hens by feeding or other management practices.

In Utah hucksters purchased 79 percent of their chickens on a grade basis and independent processors purchased 24 percent on this basis. Almost half of the chickens purchased by hucksters and independent processors in Oregon were purchased on the basis of grade whereas in Washington these buyers purchased 1 and 5 percent, respectively, on this basis.

With the exception of Oregon where retail stores and restaurants purchased 13 percent of their chickens on a grade basis, chickens sold to consumers and retail stores and restaurants were not graded.

Type of Buyer Related to Method and Place of Weighing Chickens

The practice of weighing chickens at the farm was the prevalent method used by hucksters and ultimate consumers in all three states (table 17). Most of the chickens purchased by cooperative processors in Washington and Oregon were weighed at market whereas in Utah most of them were weighed at the farm. Place of weighing chickens by independent processors was fairly evenly divided between farm and market in each of the states.

Method of weighing did not vary greatly among types of buyers, except most chickens weighed by the bird were sold to

Table 17. *Method and place of weighing related to type of buyer, various Western States, 1948-49*

Type of buyer	Place of weighing		Method of weighing			
	Farm	Market	Bird	Coop	Load	Battery
	per- cent	per- cent	per- cent	per- cent	per- cent	per- cent
<i>Washington</i>						
Huckster	89	11	1	99	....	....
Independent processor	59	41	9	63	28	....
Cooperative processor	21	79	9	85	6	....
Retail store or restaurant	0	100	....	....	100	....
Consumer	100	0	90	10	....	....
All buyers	60	40	13	77	10	....
<i>Oregon</i>						
Huckster	73	27	....	100	....	....
Independent processor	36	64	....	88	3	9
Cooperative processor	—	100	....	100	....	....
Retail store or restaurant	7	93	10	90	....	....
Consumer	94	6	100	....	....	....
All buyers	36	64	3	87	2	8
<i>Utah</i>						
Huckster	100	0	....	100	....	....
Independent processor	59	41	....	84	1	15
Cooperative processor	78	22	....	83	....	17
Retail store or restaurant	100	0	100	....	....	....
Consumer	100	0	100	....	....	....
All buyers	79	21	5	81	*	14

*Less than 0.5 percent

ultimate consumers and retail stores or restaurants. Processors were the only buyers who weighed chickens by the battery and these operated only in Oregon and Utah. Weighing chickens by the load was a practice most prevalent in Washington and there 100 percent, 28 percent, and 6 percent were weighed by this method by retail stores and restaurants, independent processors, and cooperative processors, respectively.

COMPARISON OF WEIGHT, PRICE, AND VALUE OF CHICKENS SOLD

As previously stated the number, price, and weights of each lot of chickens sold were obtained wherever possible. In the event that these data were not available, estimates were obtained of

number sold and value per head. The data on number and value, therefore, are based on more observations than those on weights and price per pound and were used in the analysis when the observations of the latter were insufficient.

Average Weight, Price, and Value of Chickens Sold

When lots of chickens sold were grouped by state and class, the weight, price, and value varied considerably (table 18). Light hens averaged 3.81 pounds per head in Utah and were lighter by

Table 18. *Average weight, price, value of various classes of chickens sold, Washington, Oregon, and Utah 1948-49*

Class of chickens	Average weight per head	Average price all grades	Value per head
	<i>lbs.</i>	<i>cents per lb.</i>	<i>dol.</i>
<i>Washington</i>			
Light hens	4.26	22.2	.95
Heavy hens	5.74	25.8	1.48
Fryers	3.58	30.5	1.09
Broilers	2.80	26.8	.75
<i>Oregon</i>			
Light hens	4.32	23.0	.99
Heavy hens	5.65	28.3	1.60
Fryers	3.22	33.1	1.07
Broilers	2.57	26.8	.69
<i>Utah</i>			
Light hens	3.81	20.3	.77
Fryers	3.61	30.7	1.11
Broilers	2.28	28.1	.64

about half a pound than chickens of the same class in Washington and Oregon. The reason for this difference could not be explained by the data obtained in this study.

The average weight of fryers in Oregon was relatively light as compared with fryers in Washington and Utah and can be accounted for by the fact that a larger proportion of fryers was sold at a younger age in that state as previously shown. The average weight of broilers varied from 2.8 pounds in Washington to 2.28 pounds in Utah. The differences were probably a result of age at time of sale.

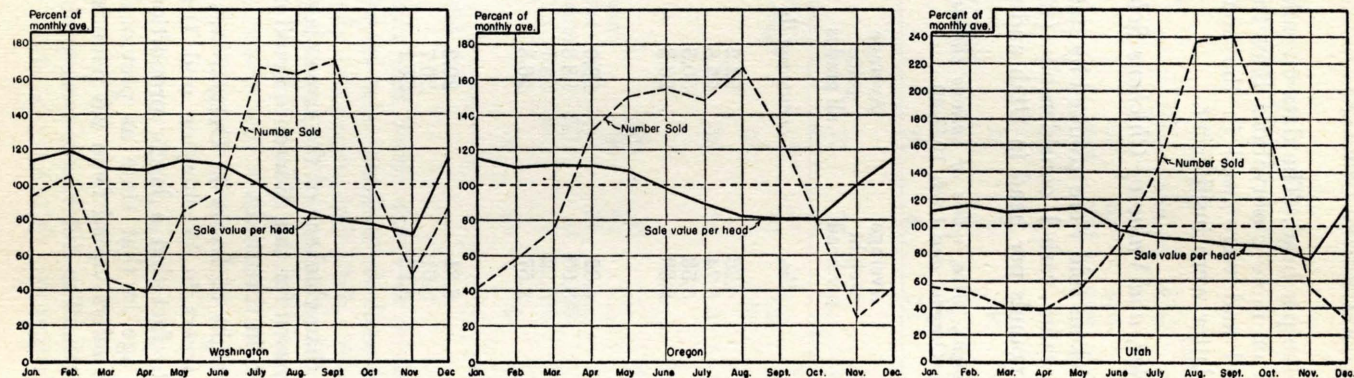


Fig. 3. Light hens—monthly variations in number sold and value per head, Washington, Oregon, and Utah, 1948-49

Prices paid to producers were highest for the fryers and varied from 30.5 cents per pound in Washington to 33.1 cents in Oregon. The average price paid to producers for light hens was from 2 to 3 cents lower in Utah than in the other states, a reasonable differential considering the fact that this class of chickens is shipped from Utah to West Coast markets. Prices paid to Utah producers for fryers and broilers were relatively more favorably than for light hens since most of the birds of these classes are marketed locally. Prices paid for heavy hens were 2.5 cents per pound higher in Oregon than in Washington.

The value of fryers per head was surprisingly uniform among the three states. Most of the variations in value per head of other classes were the result of variations in weight per head or price per pound as previously discussed.

Seasonal Variation in Sale Value

The seasonal variation in the number of chickens marketed is probably the most important factor affecting the short-time variations in prices paid by buyers for a particular class of chickens. In the discussion which follows value per head was compared with seasonal sales. As previously stated, value per head was obtained on a greater number of lots than price per pound. Assuming no month to month variations in the weight per head of chickens sold, price per pound and value per head would give similar results.

The volume of light hens sold varied from about 40 to 170 percent of the monthly average from low to high months in Washington, from about 25 to 165 percent in Oregon, and from 35 to 240 percent in Utah (fig. 3). The variation in sale value per head by months for light hens was similar for the three states and was relatively high, 10 to 20 percent above the monthly average from December to May. The value per head was relatively low from June to November, reaching a low of 75 to 85 percent of the monthly average. In each of the states the value per head began to decline as the volume sold approached 100 percent of the monthly average and continued to decline until volume sold was below the monthly average.

The relationship between monthly sales and value per head for heavy hens was similar to that for light hens (fig. 4). The peak in volume sold and the low point in value per head came one to two months earlier for this class than for light hens.

Volume of broiler sales and value per head were combined for the three states. As previously shown, volume of sales was

extremely seasonal, the large proportion of broilers being sold in the three months April, May, and June. Average value per head was highest, 135 percent of the monthly average, in February when volume of sales was small and declined continually through-

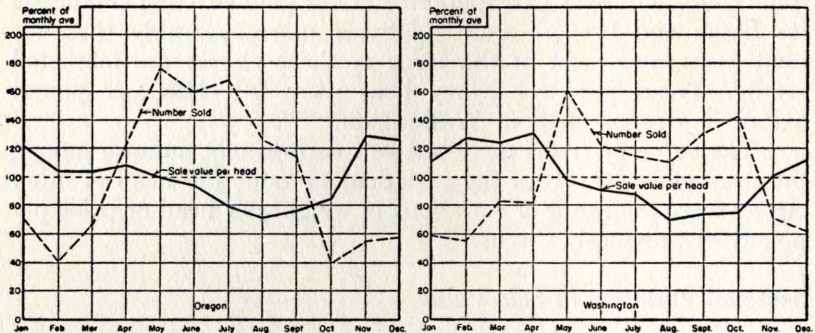


Fig. 4. Heavy hens—monthly variations in number sold and value per head, Washington and Oregon, 1948-49

out the year to a low point in November, about 75 percent of the seasonal average value (fig. 5).

The volume of fryers sold by months fluctuated considerably in Washington and Utah⁵ but was rather uniform in Oregon (fig. 6). Many fryer producers in Oregon started several small flocks regularly throughout the year, resulting in a uniform volume of fryer sales. Value per head was likewise uniform from month to month. In Washington and Utah, sales of fryers varied from about 50 percent of monthly average in months of low sales to 150 percent in months of high sales. The value per head varied inversely with volume of sales but fluctuated much less. The extreme range was from about 10 percent below to 10 percent above the yearly average.

Sale Value and Price Related to Grade

There appeared to be no consistent relationship between basis of sale and value per bird sold. For some classes of chickens in

⁵Data discussed here for Utah and presented in fig 6 are based on volume of fryers and price paid by Utah buyers for the year 1949-50. Data were obtained on more than 50 percent of the total fryers sold that year. The data obtained from producers were unreliable for showing the seasonal pattern because of the relatively small number of lots of fryers sold and the large sales per lot.

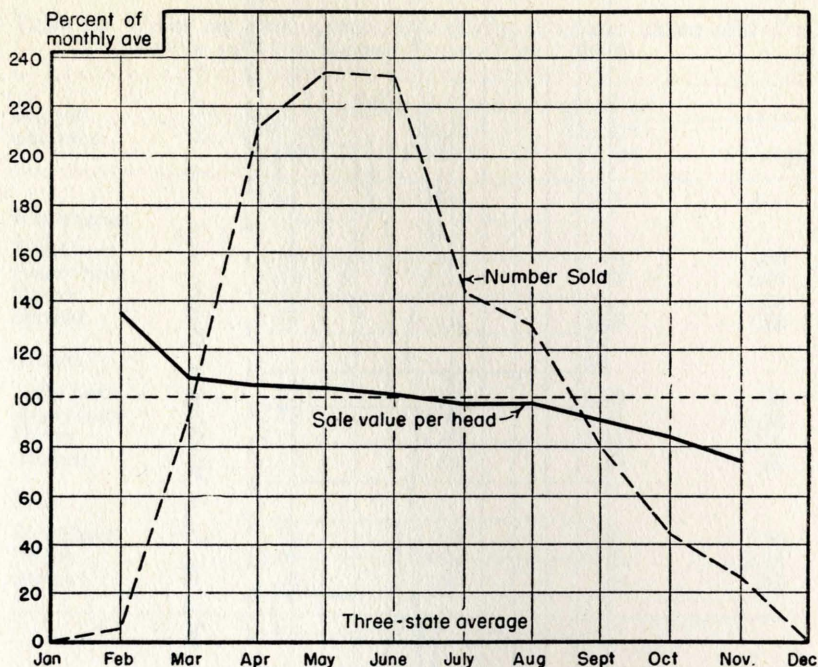


Fig. 5. Broilers—monthly variations in number sold and value per head, Washington, Oregon, and Utah, 1948-49

some states, the average value received by growers for chickens sold flock run was higher than that received for graded chickens, whereas in other states or for other classes of chickens, the reverse was true (table 19). It is safe to conclude that grading chickens, live basis, did not result in higher prices to producers, although by techniques used in this study it was not possible to appraise the basis of sale from the standpoint of equality between producers.

The price per pound paid by buyers for chickens of various classes for the three states is shown in table 20. Results are similar to those in the previous table, but they are based on a smaller number of observations since weight and grade-out were not obtained on some lots of chickens.

Differences in grade specifications among the states can be detected by comparing the price paid for different grades. For instance, prices paid by buyers in Oregon and Washington for third-grade chickens were more than twice as high as those paid in Utah for the same grade. Chickens graded third grade in Utah were of poor quality and most of them were used in animal by-

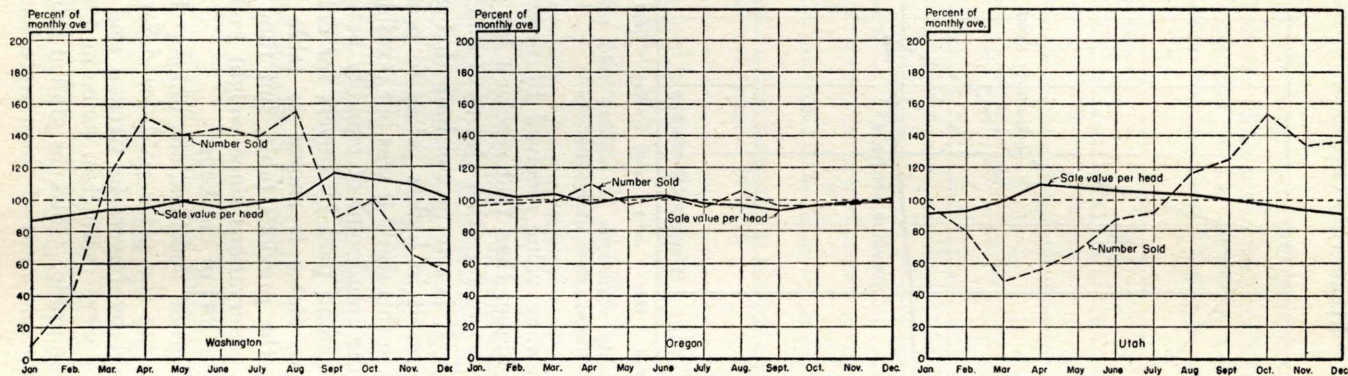


Fig. 6. Fryers—monthly variation in number sold and value per head, Washington, Oregon, and Utah, 1948-49

Table 19. *Value per head received for chickens of various classes related to basis of sale, Washington, Oregon, Utah 1948-49*

Class of chickens	Value per head by basis of sale			
	Flock run at farm	Graded at farm	Graded at plant	Average
	<i>dol.</i>	<i>dol.</i>	<i>dol.</i>	<i>dol.</i>
<i>Washington</i>				
Light hens	.99	....	.84	.95
Heavy hens	1.46	....	2.20	1.47
Fryers	1.11	....	....	1.11
Broilers	.81	....	.89	.82
<i>Oregon</i>				
Light hens	.88	.94	1.02	.99
Heavy hens	1.79	1.44	1.44	1.62
Fryers	1.09	1.12	1.09	1.09
Broilers	.70	.65	.70	.69
<i>Utah</i>				
Light hens	.89	.74	.76	.78
Fryers	1.29	1.07	1.75	1.16
Broilers	.63	.68	.48	.62

Table 20. *Price per pound paid for various classes of chickens related to grade, Washington, Oregon, and Utah 1948-49*

Class of chickens	Price per pound				Average of three grades
	Flock run	1st grade	2nd grade	3rd grade	
	<i>cents</i>	<i>cents</i>	<i>cents</i>	<i>cents</i>	<i>cents</i>
<i>Washington</i>					
Light hens	22.7	22.7	19.2	11.1	20.6
Heavy hens	25.6	25.9	31.5	....	26.7
Fryers	30.5	....	....	....	....
Broilers	27.2	26.0	21.1	16.7	24.1
<i>Oregon</i>					
Light hens	21.4	24.6	20.4	12.8	23.3
Heavy hens	30.6	26.9	22.2	16.4	25.7
Fryers	34.2	31.3	24.9	20.6	30.3
Broilers	27.1	27.2	15.2	....	26.7
<i>Utah</i>					
Light hens	24.0	20.6	15.2	6.0	19.2
Fryers	30.2	30.9	20.0	4.9	30.7
Broilers	28.6	24.5	....	....	....

products rather than for human consumption. The differential in price paid between first and second-grade chickens was fairly uniform for all classes in all states. The usual price differential between first and second grades was from 4 to 6 cents per pound.

Sale Value Related to Type of Buyer

For most classes in the three states the value per head was highest for chickens sold to retail stores and restaurants and ultimate consumers (table 21). This is not surprising since sales to these buyers are usually in relatively small lots requiring more time on the part of the producer per dollar of sales. For the three remaining types of buyers, hucksters, independent processors, and cooperative processors, the value per head was not greatly different. In Utah, with the exception of broilers, value per head was lowest for all classes of chickens sold to hucksters and highest for all classes sold to independent processors. In Washington and Oregon the relationship between type of buyer and value per head was not consistent among the various classes. The variation

Table 21. *Value per head received for various classes of live chickens sold to various types of buyers, Washington, Oregon, and Utah 1948-49*

State and outlet	Value per head			
	Light hens	Heavy hens	Fryers	Broilers
	<i>dol.</i>	<i>dol.</i>	<i>dol.</i>	<i>dol.</i>
<i>Washington</i>				
Huckster	1.07	1.39	1.15	.56
Independent processor	.96	1.45	1.07	.60
Cooperative processor	.85	1.44	1.48	.89
Retail store or restaurant	....	1.40	1.00	....
Consumer	1.12	1.28	1.11	.84
Broker	1.22	....	....	....
<i>Oregon</i>				
Huckster	.85	1.56	.97	.65
Independent processor	.98	1.63	1.06	.70
Cooperative processor	1.12	1.68	.97	....
Retail store or restaurant	1.11	1.61	1.28	.64
Consumer	1.04	1.45	1.80	....
<i>Utah</i>				
Huckster	.71	....	.97	.40
Independent processor	.84	....	1.20	.59
Cooperative processor	.76	....	1.15	.60
Retail store or restaurant	....	....	....	.93
Consumer	1.03	....	1.51	.47

in the seasonal distribution of purchases, average size of chickens, and other variables not controlled would probably account for most of the variations found among types of buyers.

COMPETITION IN THE MARKETING OF CHICKENS

One of the stated hypotheses of this study was that something less than a high level of competition existed in the marketing of chickens from producer to first handler in Oregon, Washington, and Utah. A high level of competition among buyers is believed to be essential to the efficient operation of the market. Under competition producers will receive for the chickens what consumers are willing to pay for the available supply less a marketing margin sufficient to cover the costs of the marginal handler. Marketing firms who are more efficient will make a profit and those less efficient will be forced to accept less than going rates or be forced from the market.

The extent or degree of competition among buyers of any commodity would be extremely difficult to determine quantitatively. Many conditions are necessary for pure competition and most of these as stated by economists are subjective and almost impossible of measurement. As a result of this analysis of marketing practices, several observations, however, can be made which have a bearing on the degree of competition among buyers of chickens in the three states.

Producers interviewed in this study were asked how many bids were obtained on each lot of chickens sold and a summary of these shows that only one bid was obtained on a large majority of the lots. More than one bid was obtained on only 8, 16, and 21 percent of the lots in Washington, Oregon, and Utah, respectively (table 22). Failure to obtain more than one bid indicates that there is little competition for individual lots of chickens. The seller either has complete confidence that he will get a fair deal from the buyer he calls to get his chickens or else his alternatives are limited. It is understandable that a member might sell through a cooperative without attempting to get additional price offers on his lot of chickens, but it is difficult to see why a producer would sell to an independent processor or huckster without first getting other offers unless there was little or no competition for his chickens.

Since some flocks of meat birds are produced under contract with processing plants, it might be expected that such producers would be under obligation to sell to a particular outlet and would, therefore, not be in a position to get competitive bids on these lots.

Table 22. *Proportion of lots of chickens sold related to number of bids obtained, various Western States 1948-49*

Number of bids obtained per lot sold	Percent of total lots sold		
	Washington	Oregon	Utah
	percent	percent	percent
1	92	84	79
2	2	8	15
3	2	5	5
4	.....	3	1
More than 4	3	*	*

*Less than 0.5 percent.

Of the broiler and fryer producers interviewed, however, only 15 percent in Utah and 6 percent in Oregon were under obligation to sell to a certain buyer. None of the producers interviewed in Washington indicated that they were under such obligation.

The prevalent practice, especially in Utah, and to a lesser extent in Oregon and Washington, of buying chickens on a basis of the buyer's live-grades has a tendency to shift competition from price to non-price considerations. The fact that the grading is done by the buyer means that the producer does not know in advance what average price he will receive for the lot of chickens. The price offer is made by the buyer on the basis of first-grade chickens, but the average value received depends to a great extent upon the grade-out of the lot and the price differentials for various grades. This uncertainty of factors other than price may cause producers to sell to buyers in whom they have confidence rather than attempting to get the best price offer obtainable.

Some producers indicated that there was little need of getting more than one price offer for a particular lot of chickens because all buyers offered the same price for top-grade chickens or would meet the price offer of any other buyer. The differences among buyers appeared to be in the grade-out of the lot rather than in price offer, and prior to sale the grade-out was unknown.

Since the grading was done by the buyer rather than by an unbiased third party, it appeared that the pricing of chickens would be more competitive if they were sold on a flock run rather than a graded basis. Buyers would be obliged to look at the lot in question, estimate the quality, and make their bids accordingly, but once the offer was made, the seller would know the price for the entire lot rather than the price of those meeting a particular

grade, the standards of which are determined and controlled by the buyer.

The number of buyers in an area is another condition influencing the degree of competition. The exact number of buyers needed to provide a high level of competition would be difficult to determine. The relative size or economic strength of the buyers would also be important.

The importance of various buyers in this study was shown by groups of similar type rather than as individual buyers. As previously shown, 89 percent of all classes of chickens in Oregon were marketed through independent processors, and in Utah 65 percent were marketed through cooperative processors. The concentration of volume marketed through a particular type of buyer was even higher for some classes of chickens. Concentration of volume handled by cooperatives, owned and controlled by the producers, should not result in low prices because of lack of competition. If operated according to sound cooperative principles, these organizations should not, because of their size, operate to the detriment of producers. The greatest danger may be that, with too much concentration of volume in the hands of one cooperative firm, the competitive yardstick for measuring efficiency of operation may be eliminated or at least greatly impaired.

With 89 percent of the chickens handled by independent processors, particularly when dominated by few firms as is true in Oregon, the degree of competition among buyers may be somewhat lessened. Even with large numbers of buyers operating within a state the area may be so divided among the buyers as to create local conditions of low competition. It was not possible to determine by this study the extent to which this occurred since the state as a whole was the area sampled.

SUMMARY AND CONCLUSIONS

THIS study was based on an analysis of 370 schedules obtained from chicken producers in Washington, Oregon, and Utah, covering the year 1948-49. Objectives of the study were to describe the enterprise organization of chicken producers and their marketing practices as a basis of determining the degree of competition in the pricing of chickens at the farm level.

1. Cull layers sold for meat accounted for almost half of the chicken meat produced in the three states, and about three fourths of the hens sold for meat were of the Leghorn breed.
2. For each 100 hens put in the laying house, slightly more

than half were sold for meat purposes during the year. Death loss, sales for laying purposes, consumption on the farm, and carry-over to the following year accounted for the remainder.

3. Sale of cull layers for meat and broilers produced jointly with laying flock replacements was highly seasonal; whereas, sales of fryers, produced exclusively for meat, were fairly uniform from month to month.

4. Prices paid to producers by months for various classes of chickens varied inversely with the number sold.

5. Differences existed among producers in the three states relative to the marketing practices employed, such as, type of outlet, extent of selling by grade, place and method of weighing, and number of bids solicited.

6. Ultimate consumers and retail stores and restaurants buying directly from farmers paid higher prices for chickens than other types of buyers. Type of ownership or functions performed by other buyers did not consistently affect the price paid for chickens at the farm level.

7. Several conditions in the three states indicated the existence of a relatively low level of competition among buyers.

a. The fact that about 85 percent of the lots of chickens sold in the three states were sold without obtaining competitive bids indicates that the producer had a high degree of confidence in the buyer or that competition between buyers was not keen.

b. The concentration of volume marketed through a particular type of buyer particularly when dominated by one or two large firms indicates lack of competition. Concentration of volume marketed may be even greater in areas smaller than the state but the method of sampling used in this study would not permit analysis of such areas.

c. The practice of selling chickens on a basis of buyer's live grades has a tendency to shift competition to factors other than price and thus reduces price competition among buyers.

8. If sold on a basis of grade, chickens should be graded by an unbiased party and preferably after the birds are dressed in order that quality considerations can be more easily detected and appraised. Results of this study indicate that the prevalent practice of selling chickens on the basis of grading done by the buyer shifts competition from price to non-price considerations. Additional study of the various alternative methods of selling will be needed before recommendations for improvement can be made.