

Oregon Agricultural College Bulletin

Department of College Extension. Bulletin No. 7

By JAMES DRYDEN

Poultry Husbandry.

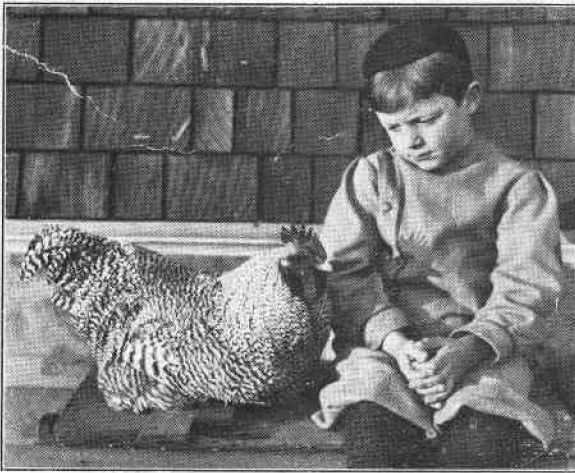
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POULTRY CONTEST

Introductory.—This bulletin gives the results of the Poultry contest of the Portland Junior Poultry Association, which ended October 31, 1910, having continued for one year. It was called a poultry contest, but it was really a boys' contest, for the plan was to give the prize to the boy or girl who did the best work.

The purpose of this contest was two-fold. First, there are many school boys and girls in the city in need of some outdoor work;



their physical well-being demands it. Again, some outdoor work that would interest them and profitably employ their idle hours would aid in character building.

These were some of the reasons that led Mr. H. W. Stone, General Secretary of the Portland Y. M. C. A., to suggest that the boys be encouraged to raise chickens on the vacant lots of the city and in the suburbs. It was this idea primarily that led the writer to suggest a poultry contest.

On the other hand, a poultry contest properly conducted would stimulate a greater interest in poultry-keeping and aid indirectly in furnishing a greater supply of poultry products for the consumer in the city, and at the same time add to the revenues of the poultry-keepers of the state. It was believed that the public interest in such a contest would attract attention to poultry-keeping and aid in developing the industry which is one of the most promising as a source of wealth in the state.

First, it was to be a moral and business training for boys and girls. Second, it was to aid in the production of wealth.

On this basis the Oregon Agricultural College cooperated with the Y. M. C. A. in starting the contest and carrying it through to completion. The results reported in this bulletin indicate in a measure what success attended our efforts.

Plan of Contest.—The plan of the poultry contest was published by the College as Extension Bulletin 3 and Circular 1. It included a reading-course in Poultry Husbandry furnished by the Agricultural College. The lessons were printed as college extension bulletins and treated the following subjects: 1—Breeds of Chickens; 2—Housing of Chickens; 3—Feeding for Eggs; 4—Diseases of Chickens; 5—Incubating and Brooding. These bulletins were sent free on application. About one thousand people in Portland, mostly young persons, applied for them, including those who engaged in the contest. In some other states classes were formed to study these lessons, but it was impossible to fully supply the demand from other states.

The main thought in planning the contest was to secure records that would be trustworthy, as indicating what profit might be made from poultry under certain conditions. The prizes were therefore offered, not for big egg yield or big profit, but for good work. The basis of awards eliminated any possible inducement for dishonesty in keeping records. An offer of one hundred dollars for best egg yield would have been too great a temptation to some contestant to over-state the egg yield, and would most certainly lead some dishonest boy to enter the contest and win the prize by dishonesty in record-keeping. It was to be a contest which, while maintaining the interest of the boys and girls, would produce data free from any suspicion of unreliability. The prizes were to be awarded, not to the best hen or the best layer, but to the contestant who did the best work. The boy, not the hen, was to be given the prize.

Another point was taken into consideration in planning this contest. It is known that there are great differences in laying in individual hens, a difference in laying capacity. Some won't lay no matter how they are cared for, and if the prizes were to be based on egg yield it might happen that the boy doing the best work would not get the prize because he might happen to have a strain of poor layers. The plan, therefore, was fair to the contestants.

A few of the main points of the plan are summarized below:

The contest to be limited to boys and girls between the ages of 12 and 18 years.

The contest to begin November 1, 1909, and end October 31, 1910.

The contestant to have not less than five nor more than fifty fowls in his flock.

The fowls to be of any breed, or no particular breed, at the option of the contestant.

No special plan or style of house was required. Suggestions as to housing, feeding and caring for the fowls were given in reading-course lessons, but the contestant was to use his own judgment as to what methods be followed.

The College to furnish blanks on which to keep records of egg yield and food consumed. These were to be mailed to the Department of Poultry Husbandry of the College at the end of each month.

The flock and yards of the contestants were to be inspected once every two or three months and markings made on the following basis:

SCALE OF POINTS

1. Good record-keeping will count.....	20 points
2. Good condition of the flock.....	20 "
3. Good housing.....	10 "
4. Good arrangement of yards.....	10 "
5. Cleanliness of yards and house.....	10 "
6. Good business methods in marketing products.....	10 "
7. Well fattened and well dressed chicken.....	10 "
8. Completion of Reading-Course.....	10 "

DEMERITS

Marks will be deducted from the score as follows:

1. Failure to send in reports when called for.....	5 points
2. Reports coming in late.....	2 "
3. Feeding rations that are not practicable.....	2 "
4. Methods that entail too much labor.....	2 "
5. Records missing at inspection.....	2 "

The number of eggs laid and the profit made by the contestant were not to be considered in making the awards.

There was no charge for those engaging in the contest.

The fowls were to be banded with sealed leg-bands, and a record kept of the number.

Prizes.—The boy or girl scoring the highest in the manner indicated above to receive \$100 in gold; second \$50, and the next ten \$5 each.

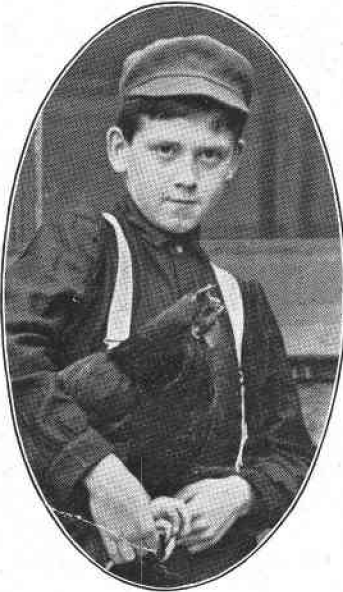
In the inspections and awarding of prizes the plan of contest was carried out practically as outlined, with the exception of the sixth and seventh ways of scoring. It was difficult to make comparisons as to business methods in marketing and to arrange for a dressed chicken exhibit. These features were therefore omitted in the scoring and each contestant was given the full number of points.

An oral examination was given and each contestant gave satisfactory proof that he had made diligent study of the reading-course lessons.

The judging was by comparison. The contestant showing the highest standing on any point was given the maximum score and the others were graded accordingly.

List of Contestants.—The following is a list of contestants who started in the contest by sending in the first month's report. The number was 28. Of these, sixteen continued for twelve months; seven continued six months but less than twelve; five continued less than six months. A number of others signed for the contest but failed to start.

Ralph Repp	Cecil Courtney	E. Victor Hounsell
Frank Mitchell	George Drew	Russell E. Alexander
Clarence A. Hogan	Alden F. Burrell	Elizabeth S. French
Elva Smith	Edwin L. Elliott	Victor Otto Hesse
Harold E. Hilton	Robert F. Knight	Arthur Mellar
George Crockett	Herbert Adams	Ruth Hayes
M. Marvin Hawksley	Melvena Gutscheck	Harold F. Ball
Elizabeth Fragmeier	Lionell Krall	Herman Schieve
William Schrack	Wilbur Byron Herron	Maxwell C. Otto
John Saunders		



CLARENCE A. HOGAN



RUTH HAYES

Table 1. Final Standing of the Twelve Leading Contestants and the Prizes Awarded to Each.

	Records	Condition of Flock	Housing	Arrangement of Yards	Cleanliness of Yards and House	Marketing	Dressed Fowl	Reading Course	Demerits	Total Score	Prize
1. Clarence A. Hogan	19	20	8	8	10	10	10	10	—	95	\$100
2. Ruth Hayes	18	18	8	8	10	10	10	10	—	93	50
3. Frank Mitchell	17	17	10	10	10	10	10	10	2	92	5
4. Wilbur Herron	20	17	8	8	10	10	10	10	2	91	5
5. Harold F. Ball	18	18	8	10	8	10	10	10	0	90	5
6. Melvena Gutscheck	17	18	8	8	8	10	10	10	0	89	5
7. Herbert Adams	19	19	8	8	8	10	10	10	0	89	5
8. Ralph Repp	17	18	8	8	8	10	10	10	0	89	5
9. Elva Smith	18	16	8	8	8	10	10	10	1	88	5
10. Edwin L. Elliott	18	17	8	8	8	10	10	10	1	88	5
11. Harold H. Hilton	16	17	8	8	8	10	10	10	1	88	5
12. George Drew	16	18	8	9	8	10	10	10	1	88	5

Table 2. Summary of Results.

Those who failed to continue at least six months are omitted in this table. The results given are averages per fowl.

Contestant	Number of Fowls Average	Time in Contest Months	Eggs Laid per Fowl	Value	Cost of Food Fed	Profit	Kind of Chickens
Clarence A. Hogan	22	12	140	\$4.24	\$1.22	\$3.02	Crosses
Ruth Hayes	12½	12	131	3.56	.84	2.72	White Leghorns
Frank Mitchell	5	12	107	2.73	1.70	1.03	Black Minorcas
Wilbur Herron	23	12	82	2.37	1.00	1.37	Brown Leghorns
Harold F. Ball	9	12	130	3.83	---	---	Rhode Island Reds
Melvena Guttcheck	14	12	103	2.67	---	---	Buff Orpingtons and Barred Ply- mouth Rocks
Herbert Adams	4½	12	153	4.66	---	---	Leghorn Crosses
Ralph Repp	7	12	116	3.41	.54	2.87	Brown Leghorns
Elva Smith	12	12	96	2.74	.89	1.85	Brown Leghorns
Edwin Elliot	5½	12	122	3.22	.98	2.25	Brown Leghorns
Harold H. Hilton	8	12	104	2.88	---	---	White Plymouth Rocks and Crosses
George E. Drew	11	12	117	3.19	---	---	Mixed Crosses
Herman Schieve	10	12	106	2.94	---	---	Wyandottes, White Rocks and Partridge Cochins
Elizabeth French	20	12	45	1.14	.76	.38	Mixed Crosses
Victor Otto Hesse	8	12	133	3.59	---	---	White Leghorns
Arthur Meller	4	12	123	3.18	---	---	Plym. Rock Cross
Robert F. Knight	10	12	102	2.81	---	---	Crosses
E. Victor Hounsell	18	10	69	1.94	.80	1.14	Wyandottes
Elizabeth Fragmeier	28	6	63	1.06	.49	1.47	Crosses
William Schrack	19	7	66	1.82	.51	1.31	Rhode Island Reds
Maxwell Otto	4	8	102	3.20	1.66	1.54	Plym. Rock Cross

Prices of Eggs.—The financial results shown in Table No. 2 are figured on the prices of eggs given at bottom of Table No. 4. These prices are of course high but were easily obtainable in Portland during the year of the contest. The highest price used in the computation was 55c. a dozen which was for the month of December. Eggs sold in Portland during the winter as high as 55c. a dozen wholesale and a retail price of 60c. could readily be obtained for strictly fresh eggs. In figuring on this basis it is not to show what a farmer, fifty or a hundred miles from a city, can realize on his poultry; the primary object is to show what results may be secured from a small flock on a limited area in the city and its suburbs. The returns may appear high but they were based on prices actu-

ally obtainable during the past year. The following are prices used:

November 50c. a doz.	March 30c. a doz.	July 30c. a doz.
December 55c. a doz.	April 25c. a doz.	August 35c. a doz.
January 50c. a doz.	May 25c. a doz.	September 40c. a doz.
February 45c. a doz.	June 30c. a doz.	October 45c. a doz.

Cost of Feed.—It could not be expected that these records would be kept with scientific accuracy by all the contestants, and the figures as to cost of feed per fowl as shown must not be accepted as applicable under all conditions. The contest was not conducted as a scientific experiment; it was not intended as such. The purpose, as stated, was to show how boys and girls, under various conditions, could make the most of their opportunities in keeping chickens. For that reason it was impracticable to limit them to certain kinds of houses or to certain feeds. The rations fed by most of the contestants contained table scraps of no marketable value and these are not taken account of in figuring up the cost of feed. A few fed no table scraps, others very little. In a few cases other food was secured without cost, such as meat scraps from the butchers.

The cost of feeding a hen, however, as shown by the records of some of the contestants is not far from the actual fact.

The following are the prices used in computing the value of the feed; values are in cents per pound: Wheat $1\frac{1}{2}$, corn $1\frac{1}{2}$, oats $1\frac{1}{4}$, barley $1\frac{1}{4}$, bran $1\frac{1}{4}$, beef scrap 4, oil meal 2, grit $\frac{3}{4}$, shell $\frac{3}{4}$, cut bone 3, alfalfa meal $1\frac{1}{2}$, cracked corn 2, middlings $1\frac{1}{2}$, chick feed 4, egg food 2, charcoal 1, blood meal 5.

Table 3. Number of Eggs Laid Per Fowl for Each Month, 1909-1910

CONTESTANTS	Nov.	Dec.	Jan.	Febr.	March	April	May	June	July	Aug.	Sept.	Oct.
Clarence A. Hogan	2.6	8.0	15.1	12.8	17.8	16.3	15.3	14.7	14.5	12.1	7.2	3.5
Ruth Hayes	.9	2.8	9.3	9.6	18.1	18.6	19.2	16.4	16.6	12.7	4.5	1.9
Frank Mitchell	0	0	.8	6.2	20.8	15.8	17.0	12.0	16.0	12.8	4.0	1.6
Wilbur Herron	.6	3.1	5.6	10.3	14.6	12.8	13.9	7.7	5.4	3.2	3.3	3.6
Harold F. Ball	0	5.7	14.6	12.8	19.2	14.7	11.0	11.4	10.6	11.7	9.5	8.0
Melvina Guttscheck	1.1	.9	1.1	9.1	26.0	19.3	15.9	9.1	8.1	8.0	2.9	1.4
Herbert Adams	7.0	13.7	14.7	16.2	17.5	15.7	19.5	15.2	10.8	9.4	10.2	8.8
Ralph Repp	0.7	7.7	12.3	12.4	20.9	14.4	10.4	13.9	8.0	9.9	4.1	1.1
Elva Smith	1.6	3.1	11.2	9.4	16.3	13.6	11.9	11.4	7.9	8.1	1.7	.0
Edwin Elliott	0	4.4	8.5	7.0	14.8	21.7	22.5	13.8	13.0	6.4	6.0	2.6
Harold H. Hilton	6.6	1.3	.3	9.8	19.0	14.4	14.0	6.5	14.2	7.0	8.0	3.4
George E. Drew	0	.4	5.6	9.1	16.0	16.5	17.0	12.1	13.3	13.8	9.4	4.1
Averages	1.8	4.26	8.26	10.4	18.4	16.2	15.6	12.0	11.5	9.6	5.9	3.3

Table 4. Value of Eggs Laid Per Fowl Each Month (in Cents)

CONTESTANTS	Nov.	Dec.	Jan.	Febr.	March	April	May	June	July	Aug.	Sept.	Oct.
Clarence A. Hogan	11	37	63	48	41	34	32	37	36	35	24	13
Ruth Hayes	4	12	39	36	45	39	40	41	41	37	15	7
Frank Mitchell	0	9	3	23	52	33	35	30	40	37	13	6
Wilbur Herron	2	14	23	38	37	27	29	19	13	9	11	14
Harold F. Ball	0	26	61	48	47	31	22	29	26	33	32	26
Melvena Guttischeck	4	4	5	34	65	40	33	23	20	24	10	5
Herbert Adams	29	62	61	61	44	33	41	38	27	27	34	33
Ralph Repp	3	35	51	47	52	30	22	37	20	29	14	4
Elva Smith	7	14	47	35	41	28	25	29	19	22	6	0
Edwin Elliott	0	20	35	26	37	46	47	35	33	19	20	10
Harold H. Hilton	26	6	1	35	48	30	28	16	34	20	27	12
George E. Drew	0	2	23	34	40	34	35	30	33	40	31	15
Averages	7	19	34	39	46	34	32	30	29	28	20	12
Prices of Eggs	50	55	50	45	30	25	25	30	30	35	40	45

Age of Fowls.—The pullet is a better layer than the hen. In studying the egg yield of the fowls in the contest their ages should be known. In the following table the flocks of the twelve prize winners are divided into hens and pullets. The highest egg yield was made by pullets, the poorest by hens. Had the fowls all been pullets, other things being equal, higher average egg yields would have been secured.

	HENS	PULLETS		HENS	PULLETS
Clarence A. Hogan	2	24	Ruth Hayes	5	8
Frank Mitchell	0	5	Wilbur Herron	26	0
Harold F. Ball	0	9	Melvena Guttischeck	5	10
Herbert Adams	0	5	Ralph Repp	0	7
Elva Smith	0	12	Edwin Elliott	4	2
Harold Hilton	9	0	George Drew	4	7

Monthly Variations in Yield and Profit.—Table No. 3 gives the average number of eggs laid per fowl each month by the flocks of the twelve contestants. It will be noted that the highest egg yield in any month was secured by Melvena Guttischeck in March, her flock averaging 26 eggs per hen. The next best monthly record was secured by Edwin Elliott in May with an average of 22.5 per fowl.

The hardest months in which to get eggs are November, December, and January. During those three months Herbert Adams secured the best yield, his flock averaging 35.4 eggs per hen. Clarence Hogan was second with an average of 25.7.

Taking the average of all the flocks, March gave the highest egg yield, the average per fowl being 18.4 eggs. April is next with 16.2, followed by May and June. March, April, May, and June, in the order named, were the most productive months. The lowest egg yield was secured in November. Eggs were highest in price in

December. Adams got the best yield in that month, Hogan second, Repp third. In January Hogan got the best yield, Adams second, Ball third.

The most productive months may not be the most profitable. Table No. 4 shows the value by months of eggs laid. It happens in this contest that the most profitable month, taking the average of all the flocks, was also the most productive. With eggs at 30c. a dozen the hens in the contest averaged 46c. worth of eggs each in March; February was second with 39c. per hen. January, April, and May showed the same average value of 34c. per head, eight eggs in January being worth as much as sixteen in April. Taking individual flocks the highest value of eggs was secured in March from the flock of Melvena Gutscheck, which was 65c. Hogan secured the second highest value, or 63c. per fowl in January.

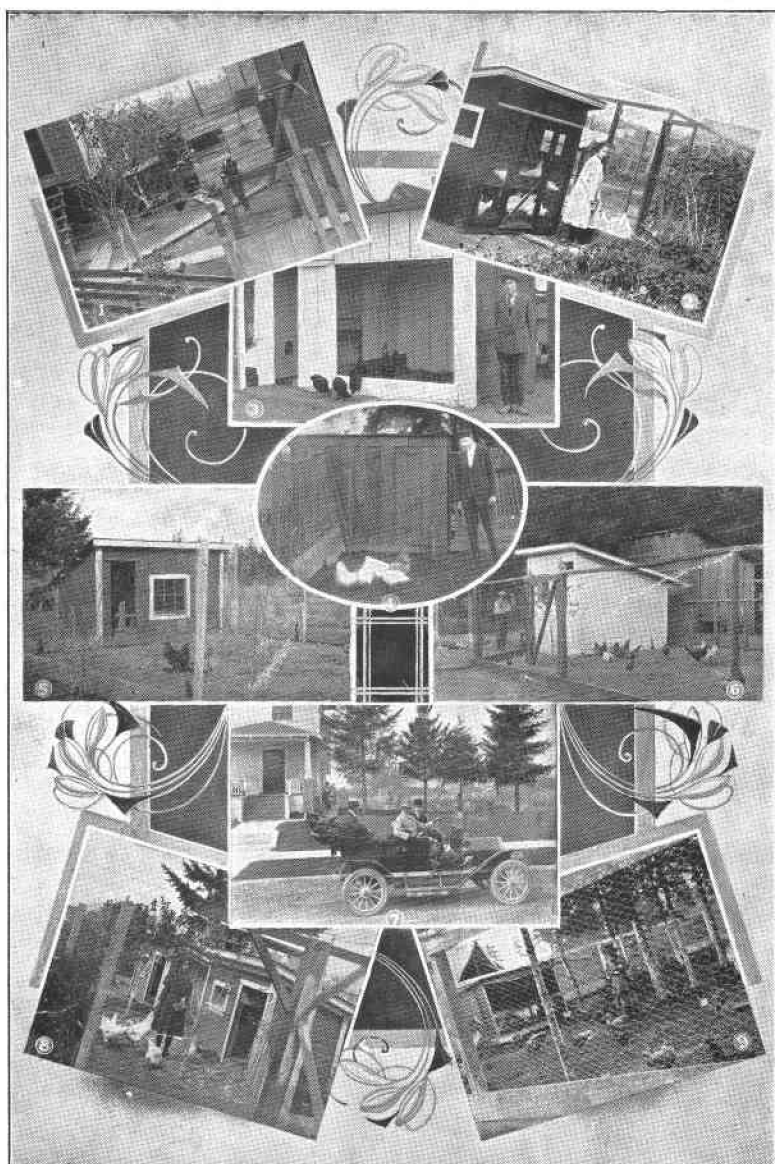
[Table 5] Ration fed by Clarence A. Hogan (weights in pounds). Average number fowls, 22 hens, 1 rooster.

	Wheat	Corn	Bran	Grit	Shorts	Value of food
1909						
November	149	8	---	4	25	\$ 2.24
December	110	28	19	5	25	2.82
January 1910	93	21	26	4	26	2.55
February	97	25	24	4	24	2.61
March	98	31	27	4	27	3.00
April	73	23	25	4	25	2.43
May	81	17	26	4	26	2.45
June	80	7	25	4	25	2.21
July	104	---	26	4	26	2.45
August	95	---	36	4	36	2.85
September	60	---	34	4	34	2.12
October	54	---	35	4	35	---
Total	1094	160	303	49	309	---
No. eggs per fowl,	140	Value eggs, \$93.39				
Profit on food,	\$66.56	Value food, 26.83				
Profit per fowl,	3.02	\$66.56				

[Table 6] Ration fed by Ruth Hayes (weights in pounds). Average number fowls, 12½ hens, 1 rooster.

	Wheat	Corn	Oats	Bran	Beef Scrap	Grit	Shell	Barley	Value of food
1909									
November	36	---	---	---	4	2	2	12	\$.97
December	20	20	---	---	5	1	1	1	1.08
January 1910	21½	22½	---	---	2	---	---	5	1.21
February	41½	10½	---	---	---	---	---	5½	1.30
March	41	9½	4½	13½	---	---	---	---	1.09
April	35½	16½	1½	2	2½	2	---	---	1.41
May	34	10	2	2½	---	---	---	---	1.01
June	30½	80½	1½	3½	---	---	---	---	1.39
July	32½	17½	3	4	---	---	---	---	1.18
August	33½	11½	4	3	---	---	---	---	1.10
September	29½	16½	6½	1	---	---	---	---	1.04
October	34½	17½	8	4	---	---	---	---	---
Total	390	53½	130½	31½	33	3½	14½	25½	11.08
No eggs per fowl,	130.56	Value eggs, \$44.54							
Profit on food,	\$34.09	Value food, 10.45							
Profit per fowl,	2.73	\$34.09							

Improving Opportunities.—The boys or girls who got the best prizes were those who made the most of their opportunities. Hogan had a more unfavorable location and had a poorer house than many of the contestants. Judged by most standards, but he made the best of it and overcame the handicap. Frank Mitchell didn't wait to earn money to hire a carpenter to build him a chicken house, but went to work and built it himself, with a little help on the frame-work from his elder brother; and a very excellent house it is. Herbert Adams used an old shed for a time, but finally burned it down in



YARDS OF SOME OF THE CONTESTANTS IN POULTRY CONTEST.

1, Clarence A. Hogan; 2, Ruth Hayes; 3, Frank Mitchell; 4, Herbert Adams; 5, Harold F. Ball; 6, Geo. Drew; 7, Y. M. C. A. automobile used for making trips of inspection; 8 Herman Schieve; 9, Melvena Guttscheck.



1. Geo. Drew. 2. Wilbur Herron. 3. Elva Smith.
4. Herbert Adams. 5. Harold F. Ball.

disgust without waiting for an appropriation to build a new one, and from scraps of lumber secured from a lumber yard near-by built a new one of good design all by himself. In the same way he got material for fencing, and the whole outlay for house and fence was 80 cents. He got the best egg yield in the contest. Robert Knight discovered that a good deal of popcorn fails to pop, and he made a deal with the street corner popcorn sellers whereby

he got this poultry food without cost, and he set about breaking the egg famine with poultry foods that are going to waste. Stories might be told of all the contestants, showing how they improved their opportunities. They were all school boys and girls, keeping up their studies, and at the same time doing a work on the side that has been talked about across the continent. What can a boy do? What can he not do?

Some of the Results.—This poultry extension experiment has shown that there are hundreds of people, both old and young, in the cities and the suburbs of cities who take a practical interest in poultry-keeping. The interest was not confined to the city of Portland, nor



Clarence A. Hogan's flock of cross-bred fowls.

to the state of Oregon, but extended throughout the United States as well as to several foreign countries.

The contest has given the boy a little taste of farm life and initiated him into some of the mysteries of animal production and animal breeding.

While as a business proposition it may not be well to encourage backyard poultry-keeping in the cities, at the same time it offers interesting and profitable employment to many boys and girls. A poultry yard need not be made a dumping ground for tomato cans and other rubbish, but it may be made the most attractive part of the city or suburban lot for many of the young people.

While this experiment in city poultry husbandry was not a sci-

entific one as it relates to practical poultry production, at the same time it offers evidence that fowls when given good care will pay a good profit on the cost of their keep, even under the restricted area of a city lot.

Outside of the question of financial profit, it gives the boy something to do, and in doing something it is just as well that he be at the same time a producer of wealth.

Notes by the Twelve Leading Contestants on Methods of Feeding.

CLARENCE A. HOGAN:—

1. I used wet mash in feeding the chickens. 2. I fed animal food occasionally (this consisted of fresh meat scraps donated by the butcher). 3. There was a little meat in the table scraps. 4. I fed table scraps every day. 5. I fed whole grain part of the time in litter and part of the time in hopper.

RUTH HAYES:—

1. I used wet mash in feeding the chickens. 2. Yes, I fed beef scraps; the scraps were put into a hopper and the hens ate what they wanted. 3. I fed table scraps; there was meat in them at times but very little milk. 4. I fed some table scraps every day, mixing with a little bran. 5. I fed whole grain once a day, fed it dry; in dry weather I scattered it on the fresh ground, in wet weather I fed it on the floor of the chicken house.

WILBUR HERRON:—

1. Used wet mash in feeding the chickens. 2. When I fed animal food it showed on the records. 3. Fed table scraps which contained neither meat nor milk. 4. Fed table scraps every day. 5. Fed whole grain at least once a day either alone or with other food.

HAROLD F. BALL:—

1. I fed wet mash until the first of March when I changed and used dry mash the rest of the time. 2. As you will notice I have kept no record of animal food before March first, I fed steer heads before this. I chopped them open and they got the brains and cheeks. I fed a head every other day, as I got the heads free I made no note of it, after March first I fed beef scrap. 3. I fed table scraps, there was meat in it only when we killed a chicken and once in a while it had some curdled milk. 4. I fed it morning and night. 5. When I fed wet mash I fed whole grain morning and night in the litter, when I fed dry mash I fed whole grain three times daily, all the whole grain was given in the litter.

MELVENA GUTTSHECK:—

1. Wet and dry mashes were fed alternately. 3. Very little milk or meat was fed in table scraps, mostly vegetables. 4. Wet mash fed every other day; includes table scraps. 5. Whole grain fed twice a day, fed in litter; chickens scratch for it.

HERBERT ADAMS:—

1. From January to October I fed a wet mash; during October a dry mash. 2. Fed no animal food. 3. Yes, fed table scraps which had some meat but no milk. 4. I fed it, I believe once a day. 5. From November 1909 to March I fed whole grain twice a day; from March to end of contest three times a day.

RALPH REPP:—

1. I fed dry mashes. 2. All animal food I fed I put on record. 3. Yes, lots of table scraps which had very little meat but no milk. 4. Table scraps every day. 5. I fed whole grain twice a day in litter.

ELVA SMITH:—

1. I used a moist mash every morning; there were cooked vegetables mixed with it. 2. I fed beef scraps, which was reported every month. 3. I fed no table scraps or milk. 5. I fed whole grain every day in the litter.

EDWIN L. ELLIOTT:—

1. Mash was wet. 2. I fed some chopped meat part of the time. 3. Fed no table scraps. 5. I fed whole grain every day in the litter.

HAROLD H. HILTON:—

1. Fed bran as a crumbly mash during January and February; the table scraps were fed this way also with a little prepared poultry pepper added; the rest of the food was dry. 2. Besides what animal food was recorded, worms and grasshoppers were got in the field back of our house; other animal food was recorded. 3. Table scraps fed often, contained sour milk or buttermilk and also bones and scraps that had a good deal of meat. 4. Scraps were fed not more than once a day. 5. Whole and cracked grain was fed morning and evening either in the grass part of the yard or in the hay in the scratching shed or else on newly dug up ground.

GEORGE DREW:—

1. I used dry mash in the morning, that is a mixture of bran and cracked corn or rolled barley with just enough water to moisten it. 2. I fed very little meat, two or three times during the summer I hung a pound of fat or liver where they could pick at it. I fed

about fifteen pounds of dry bone meal which I bought at the grocers. 3-4. Very few table scraps were fed, none with meat or milk. 5. I fed whole wheat every evening either on the ground or in the litter.

LETTERS FROM CONTESTANTS

How He Won \$100 Gold.

Boys and girls should raise chickens in the city as well as on the farm because it pays well and is a fine occupation. It is a work that never grows tiresome and new experiences are always awaiting you. Various theories are advocated as to the proper manner of housing and feeding to get the best results but simple rules are the best to begin with. Plenty of clean water, clean houses and yards and good feed are needed to get the best results. Spade up a little in the chicken yard every day that it is pleasant, but if it is cold and in wet weather provide a scratching shed. Keep the hens busy. Read the bulletins furnished free by the government and the various experiment stations. Also subscribe to a good poultry paper. The ideas you will get from these, together with your own experience, will make you a successful poultry raiser. By doing all that was stated above I was able to win first prize in the poultry contest just closed.

CLARENCE A. HOGAN.

Frank Makes Breakfast the Night Before.

During the time that I have been taking care of poultry I have been successful. I only had six chickens in the contest, five hens and a rooster, but I have about fifty other chickens to take care of. The chickens that I had in the contest were Black Minorcas, but I also raise White Wyandottes. The house I have for the contest chickens is 12 feet wide and 6 feet long. The place they roost in is 4 feet by 6 feet, and the rest is a scratching, which is 8 feet by 6 feet. The house is open front and has a ground floor, which is dry and the chickens can dust in it.

I feed them three times a day, grain in morning and noon, which I feed in litter, and a warm mash at night so they can go to roost warm. I also keep bran, charcoal and grit before them all the time. I have a bone cutter and feed cut bone to my chickens once a week. I clean off the drop board every morning, and once a week coaloil the roost and where the roost rests. During this cold weather I do not let the chickens out very early and when it is raining I do not let them out at all. Every night after the chickens have gone to roost I go out and throw a little grain in their litter and that gives them something to do the first thing in the morning.

FRANK MITCHELL.

Herbert Adams Tells How His Hens Laid the Best.

In the spring of 1909 I bought a hen and twelve young chickens. Soon after this a man came to our school and talked to the boys and girls about the Portland Junior Poultry Association. I sent for a prospectus and after reading it joined the Association.

When the Poultry Contest opened in November I entered four hens and a rooster. Later withdrew the rooster and entered a hen in his place.

In raising the chickens I followed the instructions given in the reading course and as a result my hens were the best layers in the contest. One of the five hens has laid right through the moult.

I fed the chickens a ration recommended by the Oregon Agricultural College. The amount of food for each hen when fed on this ration for a year should be about twenty pounds corn, 20 lbs. wheat, 10 lbs. oats, 10 lbs. bran,

5 lbs. middlings and 5 lbs linseed meal besides plenty of green food and animal food. The bran, middlings and linseed meal I mixed together and placed it where the chickens could get to it at any time. Before I fed this ration the hens would lay good for about two weeks and then would lay very poor for a while, but when I changed they did not quit laying after a heavy laying period.

The house and yard were made from lumber taken from the scrap piles of a near by mill. This lumber cost me nothing. In the second house I had to buy just eighty cents worth of lumber. The east end of this house is covered with burlap to within two feet from the ground. This burlap lets in plenty of air and stops the wind. During last winter I did not have any sick chickens.

I thoroughly enjoyed this contest and I hope another one is started soon.

HERBERT ADAMS.

Edwin Gives His Chickens Garden Practice.

My father is in the poultry business and so when the Junior Poultry Association was organized I became a member of it, and I am glad I did for it has been a big benefit to me. I liked the reading course for there were many good things in it. I did not like the keeping of records very well for that was too much like school work.

My flock were Single Comb Brown Leghorn. Their quarters were part of an old house we had on the place. Their room was about 6 by 8 feet and the yard 35 by 15 feet. I started in the contest with a rooster and 7 hens. Two of the hens died during the contest; don't know the cause.

I kept straw on the floor of the house for them to scratch in. In this straw I threw their grain. They would have to scratch to get it and this gave them good exercise. Its all right to make hens work for their food but I don't approve of that kind of treatment for boys.

The grain I fed was wheat, corn and oats; about two-thirds of the feed was wheat, 1-6 corn, 1-6 oats. These were all mixed together and fed in the evening early enough for them to get all they wanted before roosting time. What little was left they would work out in the morning before I fed them their mash food. Mash was fed every morning in winter and about two or three times a week in summer. The mash was made of bran and shorts mixed with quite warm water and fed warm. I did not feed them all the mash they could eat but about three-fourths as much as they wanted. When they had their mash cleaned up I would throw a little grain in their straw and they would get busy right away.

Part of the yard I kept spaded up for them to scratch in and dust in and about once a week I would sow oats in part of this for them to work for, and how they would scratch in that fresh, loose ground! I guess they thought they were in the garden.

I also fixed a place for them to go under the house and dust when it was too wet outside. I also fixed a shelter from the sun outside in the yard. I had beef scrap in front of them only when they could not get fish worms in the ground I spaded up for them. I kept gravel, oyster shell, charcoal and fresh water where they could help themselves. I had a dropping board under their roost and cleaned this off every day when I had time. When we were busy with berries it would go for four or five days. The straw on the floor I cleaned out about once a month. I gave them lawn clippings in summer for green food and kale or cabbage in the winter. I sold eggs to a man who had customers for strictly fresh eggs. He paid me about five cents above the wholesale market price. I find poultry raising very profitable as well as easy work,

EDWIN L. ELLIOTT.