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EC1496 Revised 1950 Poultry Rations and Feeding

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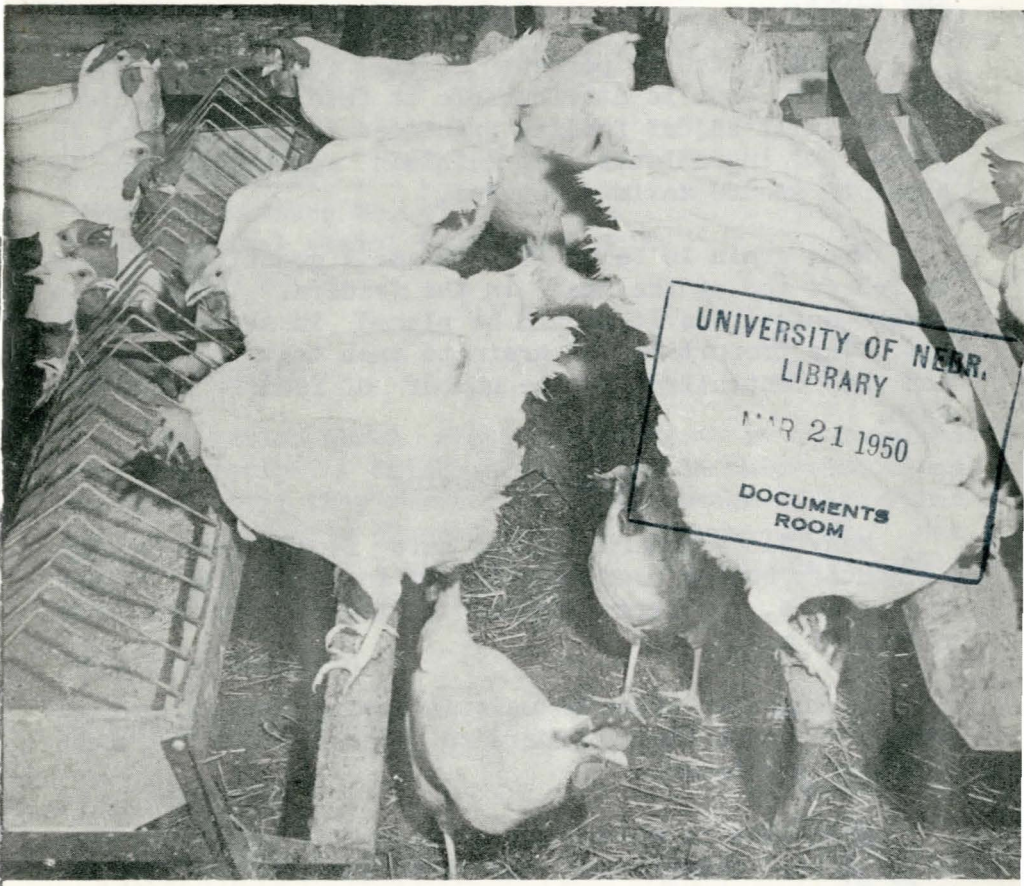
POULTRY RATIONS and FEEDING



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COOPERATIVE EXTENSION WORK IN AGRICULTURE AND HOME ECONOMICS. UNIVERSITY OF NEBRASKA COLLEGE OF AGRICULTURE, AND THE UNITED STATES DEPARTMENT OF AGRICULTURE COOPERATING, H. G. GOULD, ASSOCIATE DIRECTOR, LINCOLN.

POULTRY RATIONS AND FEEDING

W. F. Aubol

Efficient feeding is essential if the poultry enterprise is to prove successful. By efficient feeding is meant supplying feeds that will maintain health, growth and production at prices justifying their use. The feeding of poultry is probably the most important single factor in the maintenance of health and production. This will be reflected in profitableness of the flock.

Since 60 to 70 percent of the poultryman's total production cost is attributable to feed, the efficient manager will adjust feeding practices to fluctuations in prices of ingredients yet maintain egg production in order to secure maximum returns.

When grain is being fed in small quantities it may be fed on top of the mash in the feeders. When fed in larger quantities it should be placed in separate feeders. The proportion of grain to mash that is consumed can be controlled by the number of feeders used for each.

Quantity Buying

Many flock owners do not have flocks large enough to justify buying ready-mixed feed in quantities of one ton or more, or large amounts of ingredients for home mixing of mash.

Savings can often be made in buying feed if several producers pool their orders to enable them to make quantity purchases.

Feed that is stored for an excessive period of time will often deteriorate and loose some of its value. When buying quantities of feed in excess of needs for a reasonable period of time, precautions should be taken to prevent deterioration with a loss in feeding value.

Complete Chick and Poult Starting-Mash Formulas

Formulas	48-M for Chicks	48-T for Poults
	Lbs.	Lbs.
Yellow cornmeal	39.0	29.0
Shorts or ground wheat	10.0	10.0
Bran	10.0	10.0
Pulverized oats or barley	10.0	10.0
Alfalfa (17% protein minimum)	5.0	5.0
Meat scraps	5.0	5.0
*Fish soluble blend (or fish meal)	5.0	5.0
Soybean meal	5.0	10.0
Corn gluten meal	5.0	10.0
Dried buttermilk	3.0	3.0
**Mineral mixture No. 45	3.0	3.0
***Act. animal sterol (2000 AOAC units vitamin D per g.)	.1	.2
	100.0	100.0
Average Protein	20.4	23.2

The ration shown above can be used as a complete starting ration. Chicks are started on this ration and continue until they reach four to six weeks of age when they are gradually changed to an all-purpose mash. One hundred chicks will require about 200 pounds of this mash through the first six weeks.

*See page seven.

**Salt mixture No. 45:

	Lbs.
Limestone	60.00
Iodized salt	30.00
Manganese sulphate	0.75 or 12 oz.
	90.75

***See page seven.

Nebraska Broiler Ration No. 857

	Lbs.
Yellow cornmeal	635
Meat scraps	100
Soybean meal	85
Corn gluten meal	75
*Fish soluble blend (or fish meal) . . .	25
Alfalfa meal (17% protein minimum) . . .	50
**Mineral mixture No. 45	30
***Act. animal sterol (2000 AOAC units vitamin D per g.)	1
	1000 lbs.
Average Protein	20 %

Broiler ration No. 857 is complete. It can be used to start the chicks and can be continued throughout the growing period. A small amount of whole oats may be fed in addition to this mash beginning with the eighth week. Oats should never be fed in amounts in excess of 10% of mash consumed. One hundred broilers require 1,100 to 1,200 pounds for the 12-week growing period.

This formula has given the highest growth rates of all rations used in recent experiments at the University of Nebraska for broiler production. It is especially well adapted to use here since it is made up of over 60% corn. Corn is usually low priced for poultry feed; it also provides a very high energy feed which will produce rapid growth.

*See page seven.
**See page three.
***See page seven.

All-Purpose or Laying Mash

	Lbs.
Yellow cornmeal	320
Shorts	100
Bran	100
Pulverized barley or whole oats	150
Alfalfa meal (No. 1 quality)	100
Meat scraps	50
*Fish soluble blend (or fish meal) . . .	25
Soybean oil meal	75
Corn gluten meal	50
**Mineral mixture No. 45	30
***Act. animal sterol (2000 AOAC units vitamin D per g.)	1
	1000
Average Protein	19.6%

The all-purpose mash can be used to replace the chick starter for pullets after they have reached four to six weeks of age. Pullets fed all-purpose mash should be given some oats from the eighth week throughout the growing season. While on the range, pullets may be fed equal parts of mash and a mixture of corn and oats.

When this mash is fed to laying hens home-grown grain may be used in varying proportions but never in excess of an amount equal to the mash consumed. The grain may consist chiefly of oats with enough corn added to maintain the body weight of the hens. One hundred laying hens require about 400 pounds of this mash per month in addition to 300 or 400 pounds of grain.

*See page seven.
**See page three.
***See page seven.

Nebraska 49-X Protein Supplement
26% Protein

	Lbs.
Yellow cornmeal	150
Shorts	300
Alfalfa meal (17% protein +)	100
Meat scraps	100
*Fish soluble blend (or fish meal)	50
Soybean meal	170
Corn gluten meal	100
**Mineral mix No. 45	30
***Act. animal sterol (2000 AOAC units vitamin D per gm.)	2
	1000

Oats and corn can be fed with the 26% protein supplement given above. Each of the grains can be fed in an amount equal to the mash. Wheat if available can be used to replace one-half of the oats. If skim milk or buttermilk is available, it may be fed at the rate of three gallons per hundred hens per day to replace about four pounds of the supplement. One hundred laying hens will require about 275 pounds of this supplement and 500 pounds of grain per month.

Suggested Feeding Program:

	Lbs. Protein
100 lbs. 49-X	26
100 lbs. whole yellow corn	10
100 lbs. whole oats or wheat or half of each	12
	48
Protein level entire ration	16%

*See page seven.
**See page three.
***See page seven.

34% Protein Concentrate

	Lbs.
Shorts	100
Alfalfa meal (17% protein +)	100
Meat scraps	100
*Fish soluble blend (or fish meal)	50
Soybean meal	170
Corn gluten meal	100
**Mineral mix No. 45	30
***Act. animal sterol (2000 AOAC units vitamin D per g.)	2
	650

Hens eat whole grains readily and are equipped to grind these grains efficiently. For this reason it is usually more economical for a farmer to buy, or have mixed, a concentrate so that a larger amount of home-grown grains can be used.

Suggested Feeding Program:

	Lbs.	Protein
100 lbs. 34% concentrate		34
200 lbs. whole yellow corn		20
200 lbs. whole oats or wheat or mixture of oats and wheat		24
		78
Protein level of entire ration		15.6%

*Fish soluble blend may be prepared by mixing 40% fish solubles with 60% alfalfa meal. Fish meal may be used as a substitute but the cost is frequently prohibitive. Several commercial products will give comparable results.

**See page three.

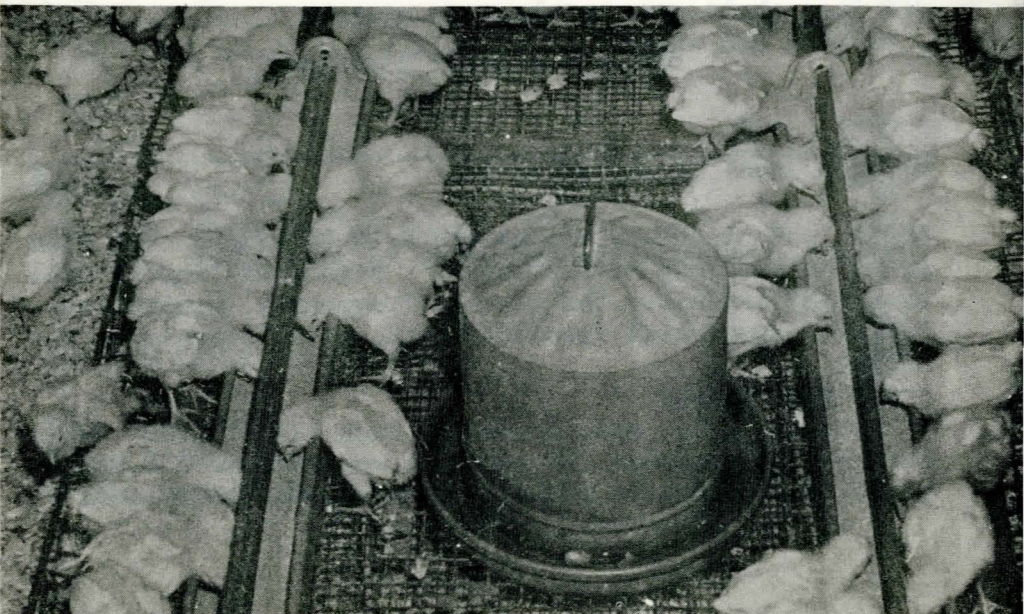
***Vitamin D is also found in fish liver oils. When chickens have access to adequate sunshine as in summer it is unnecessary to include Vitamin D in the ration.

The requirements for 100 laying hens are as follows:

1. Thirty-two linear feet of feeder space (four feeders four feet long).
2. Twenty-five to twenty-seven pounds of feed per day.
3. One large round fountain or a three-foot trough for water.
4. Seven to eight gallons of water per day.
5. Oyster shell, free choice.
6. Grit (road gravel), free choice.

The requirements for 100 broilers are as follows:

1. Twenty-four linear feet of feeder space (three feeders four feet in length).
2. Four one-gallon or two 2-gallon waterers.

The requirements for starting 100 chicks (first 6 weeks) are as follows:

1. Two feeders four feet in length.
2. Two one-gallon waterers.