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CC56-126 Poultry Profit Pointers: Feeding for Egg Production

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Poultry Profit Pointers

Feeding for Egg Production

EXTENSION SERVICE
UNIVERSITY OF NEBRASKA COLLEGE OF AGRICULTURE
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Eggs are produced from the feed we give our hens. The number of eggs that are produced depends upon the amount and quality of the ration. For a hen to lay profitably she must have a full feed of a properly balanced ration.

The whole egg contains about:
- 66 percent water
- 10 percent fat
- 13 percent protein
- 11 percent mineral

The hen's body consists of about:
- 56 percent water
- 17 percent fat
- 22 percent protein
- 4 percent mineral

Proteins produce muscles, skin, and feathers and comprise a large percent of the eggs. Proteins are supplied in greatest amount by fish meal, meat scraps, tankage, soybean meal and peanut meal. Plant protein concentrates are lacking in certain minerals, and when they are used as a source of protein the ration must be supplemented with these minerals.
Grains contain small amounts of protein but not enough to meet the needs of the laying hens, even though they are fed all they will consume. For this reason a protein supplement must be added to the ration.

Carbohydrates produce heat, energy, and fat. Grains are the principal sources of carbohydrates. Fiber is classed as a carbohydrate, but it is quite bulky and has practically no nutritive value for poultry.

Fats serve much the same purpose as carbohydrates. They are two and one-fourth times higher in heat and energy values than carbohydrates and are supplied in the ration by most of the ingredients used. Fats, in addition to supplying heat and energy, are used in making the yolk of the egg.

Many modern laying flocks are capable of producing at the rate of 225 eggs per hen annually. For this reason, more protein must be provided for layers than was formerly considered necessary.

Protein levels of 16 to 18 percent are needed from housing time through the production cycle.

### Feed Requirements

<table>
<thead>
<tr>
<th>% Egg production</th>
<th>Total Feed Per 100 Hens A Day</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>18 lbs.</td>
</tr>
<tr>
<td>10</td>
<td>19 lbs.</td>
</tr>
<tr>
<td>20</td>
<td>20 lbs.</td>
</tr>
<tr>
<td>30</td>
<td>21 lbs.</td>
</tr>
<tr>
<td>40</td>
<td>22 lbs.</td>
</tr>
<tr>
<td>50</td>
<td>23 lbs.</td>
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<tr>
<td>60</td>
<td>24 lbs.</td>
</tr>
<tr>
<td>70</td>
<td>25 lbs.</td>
</tr>
<tr>
<td>80</td>
<td>27 lbs.</td>
</tr>
</tbody>
</table>
Water

Water comprises the larger portion of the hen's body and of the egg. It is used to soften the feed and it aids in digestion, absorption, and assimilation. If the hens are deprived of water for only a short time, egg production is reduced. Therefore, an abundant supply of water at all times is necessary.

A minimum of one 8-gallon gravity flow fountain or one round automatic or jet flow waterer is recommended per 100 birds. The hens should not have to travel more than 10 feet to water at bird's eye level height.

Feeders and Feeder Space

Plenty of feeder space is essential if your birds are to have proper intake of the feed for egg production.

Provide a minimum of 40 running feet of feeder space per 100 birds. A round tube-type hanging feeder will take care of 20 to 25 hens.

Place a feeder on the roosts to provide feed for the less aggressive hens, and to maintain a higher feed intake and higher egg production.
Methods of Feeding

1. Mash and controlled grains or 50-50 mixture. An 18-22 percent protein mash is self-fed in hoppers. Grains are controlled by hand-feeding at the ratio of 40-45 percent grain to 60-55 percent mash. With this method the feed program can more readily be regulated.

2. A 26 percent supplement method. This method is the free-choice feeding of whole grains and mash. It is fed free-choice with one or more grains as a ratio of one part mash to two parts grain. The chief advantage in this method is that you can use more of home-grown grains. For high producing birds where an 18% ration is desired a 26% protein supplement mash should be fed 50-50. Everything required is included in one mixture. This method saves labor and requires less skill.

Grit and Oyster Shell

A hard insoluble grit is a must, especially when grain is fed. This supplies the grinding tool for the grain. In addition to grit, a high quality limestone or oyster shell should be provided at all times.
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