LAYING HENS PROVIDE a year-round income,
utilize off-season labor,
help build a permanent system of agriculture in Alaska

Alaska Agricultural Experiment Station Circular No. 8

Prepared by Stanley L. Balloun, Superintendent,
Matanuska Experiment Station, Palmer, Alaska
Feeding the Flock

1. The hen is a high-pressure factory. Keep it operating at full capacity by supplying an ample amount of egg-building feeds. A hen requires about 90 to 100 pounds of feed a year.

2. A high-analysis mash (23 to 26 percent protein) is economical under Alaskan conditions, because it allows for greater use of Alaska-grown grains. With low-protein mash, you pay freight on grains that you could grow on your farm.

3. Provide plenty of convenient, feed-saving hoppers. Each 100 hens should have two 8-foot mash hoppers, a grit and oystershell feeder, and a constant supply of clean water. The water should preferably have the chill removed by a heater of some kind.

4. Hens should be encouraged to eat more mash. You can do this by:

   (a) Stirring mash in hoppers each day.
   (b) Placing mash hoppers in the best light possible.
   (c) Feeding grain in the mash hoppers on top of mash.
   (d) Feeding a warm, moist mash each day.
   (e) Using only top-quality mashes that have been stored under cool, dry conditions.
   (f) Placing waterers near feeders.

5. Use Alaska-grown feeds in home-mixed mashes. Feed high-quality silage, root crops, or cabbage. Chop unthreshed grain for use as litter and scratch grain combined. Home-mix both grain and mash, or purchase mash of 23 to 25 percent protein, and self-feed both mash and grain.
Keep the Flock Comfortable

1. Hens need space or they won't lay well. Provide 4 square feet per hen under Alaskan conditions. If you can't enlarge the hen house, cull the flock.

2. In winter, confine the hens to the house and don't have too many windows. In Alaska, the window area should not total more than 4 percent of the floor area. Remove surplus windows, board up the openings, and use the windows for storm sashes.

3. Insulate and ventilate. Chopped straw over the ceiling and dry sawdust or commercial insulation for the walls are excellent. Slot-type ventilators near the ceiling on the south side are usually satisfactory. Don't extend outlets to the floor. Ventilate according to temperature.

4. Provide comfortable roosts, free from drafts. Locate roosts as far from air intakes and outlets as possible. Roosts should be made of 2 by 2 material and spaced 13 inches apart. Allow 8 or 9 inches of roost for each hen.

5. Provide a wire-covered dropping pit under the roosts, where in winter two-thirds of the droppings are passed.

6. Promote dryness by use of a deep litter of chopped straw. Start in August and add straw as needed, stirring often. Encourage hens to scratch by feeding some grain in the litter. By February, the litter should be 12 inches deep.

7. Use dark nests or separate dark nesting rooms. Frequent changes of litter in the nests will aid in keeping the eggs clean.

8. A small well-drained exercise yard is better than a larger poorly drained or dirt yard, even if considerable range is not available. Six inches of coarse gravel makes the yard sanitary.
## Two Good Laying Mashes for Alaska

### Mash No. 1

Protein content 21 percent—For use with mash-and-grain feeding

<table>
<thead>
<tr>
<th>Ingredient</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ground wheat</td>
<td>20</td>
</tr>
<tr>
<td>Ground hull-less barley</td>
<td>20</td>
</tr>
<tr>
<td>Ground oats</td>
<td>12</td>
</tr>
<tr>
<td>Fish meal</td>
<td>16</td>
</tr>
<tr>
<td>Alfalfa leaf meal</td>
<td>14</td>
</tr>
<tr>
<td>Ground Alaska peas</td>
<td>8</td>
</tr>
<tr>
<td>Limestone flour</td>
<td>6</td>
</tr>
<tr>
<td>Steamed bonemeal</td>
<td>2</td>
</tr>
<tr>
<td>Salt</td>
<td>2</td>
</tr>
</tbody>
</table>

\[ 100 \]

Add 1 pint of fortified vitamin D oil to each 100 pounds of mash.

### Mash No. 2

Protein content 26 percent—For use with self-fed grain

<table>
<thead>
<tr>
<th>Ingredient</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ground wheat</td>
<td>10</td>
</tr>
<tr>
<td>Ground hull-less barley</td>
<td>10</td>
</tr>
<tr>
<td>Ground oats</td>
<td>10</td>
</tr>
<tr>
<td>Fish meal</td>
<td>30</td>
</tr>
<tr>
<td>Alfalfa leaf meal</td>
<td>15</td>
</tr>
<tr>
<td>Ground Alaska peas</td>
<td>10</td>
</tr>
<tr>
<td>Limestone flour</td>
<td>9</td>
</tr>
<tr>
<td>Steamed bonemeal</td>
<td>3</td>
</tr>
<tr>
<td>Salt</td>
<td>3</td>
</tr>
</tbody>
</table>

\[ 100 \]

Add 1½ to 2 pints of fortified vitamin D oil to each 100 pounds of mash.
Practical Pointers for Poultry Management

When Feed Is High-Priced, Save Feed by:
1. Feeding only good hens, culling severely.
2. Using properly built feed hoppers.
3. Adding fresh feed often, but never filling hoppers over two-thirds full.
4. Keeping no hens beyond the first year of production.
5. Using hens of lighter breeds in the laying flock.

Assure High Average Egg Production by:
1. Purchasing top-quality pullets.
2. Culling often and rigidly.
3. Feeding only high-quality feeds.
4. Keeping the house clean and dry.
5. Insulating and providing storm windows.
6. Providing convenient, sanitary waterer and slightly warmed water.
7. Using lights to give hens 12 to 13 hours of light a day, or using dim lights all night.

Save Poultry Chore Labor by:
1. Piping water to drinking fountains.
2. Using covered dropping pits and cleaning them only two or three times a year.
3. Providing convenient, large-capacity feed storage in poultry house.
4. Using litter carrier on overhead track for cleaning out the house.

Keep the Laying House Dry by:
1. Using built-up deep litter of chopped straw.
2. Insulating walls and ceilings and using storm windows.
3. Providing adequate ventilation without drafts.
4. Piping warm air or water under the floor. Pipes may be laid in new concrete floors; warm-air ducts are very effective under wooden floors.

Guard Flock Health by:
1. Proper sanitation.
2. Comfortable quarters.
3. Wholesome feeds.
4. Severe culling of out-of-condition birds.