Hold on to your egg profits

J A. Hoy
IN recent years, much sound advice has been made available to poultry farmers to assist them in developing their properties and operating them on profitable lines. Much of this advice has been utilised to good advantage, but there are still many properties on which the profits are being reduced by feed wastage, damage by rats and mice, lack of sufficient attention to egg quality, unnecessarily high labour costs and failure to keep farm records.

There are other factors which can pare down the profits, but let us take a look at those listed, as they are among the most common causes of reduced income.

**FEED WASTAGE**

Have you ever paused to think how much profit you are losing through food (which you pay good money to obtain) being trodden into the litter instead of being eaten by the birds?

Most of the wastage is due to badly-designed feed troughs or hoppers. A well-designed waste-proof feeder is a good investment, irrespective of whether it is bought ready-made or put together on the property. Conversely, a feeder that encourages waste is cutting down your profits every hour that it is in use.

A bad practice on many farms is overfilling of the feed-troughs or hoppers—and you will be surprised to know what such a practice can cost you.

A test conducted on a research farm in Canada showed that, when the hoppers were filled to capacity, 29 per cent.—or more than a quarter—of the food was wasted.

In the test all split feed was measured by allowing it to fall into a trap. The hoppers were filled to various levels and allowed to become empty before more feed was added.

When the hoppers were only filled to two-thirds of their capacity, the wastage was just under 7 1/2 lb. for each 100 lb. of feed. Half-filled, the wastage was reduced to just over 2 lb., and when the hoppers were only filled to one-third of their capacity, the wastage was less than 1 1/4 lb. for each 100 lb. of food.

What does this mean in cash losses? For a start, let us suppose that you are paying say £30 per short ton for your feeding-stuffs. This works out at a shade over 3½d. per lb., so if your birds are wasting 29 per cent. of the feed—or 29 lb. out of every 100 lb.—you are losing about £8 10s. on every ton of feed used. Even on the much lower wastage figure of 7 1/2 lb. per 100 lb., the cost would be around £2 4s. per ton.

There are possibly quite a number of poultry farmers with feed wastage somewhere around the 7 1/2 lb. figure, so let us approach that subject in another way. Assuming that you have a flock of 1,000 layers that are getting about 480 lb. of feed daily, you are losing each day about 21 lb. of feed valued at 6s. 3d.—or a loss of £2 3s. 9d. a week.

Supposing this 1,000 birds are in 50 per cent. lay producing say 42 dozen a day or 294 dozen a week, your feed wastage is reducing egg profits by about 1¾d. per dozen.
Making worthwhile profits is not easy at any time, so why make it harder by allowing food wastage to continue when a little thought and labour could reduce the losses?

Check up on your outdoor feeders too. Make sure that they are rainproof and in sheltered positions where feed is not blown away. We have no figures for feed losses caused by wind—but such losses can be very costly.

CONTROL OF VERMIN

A lot of money can be lost through the incorrect storage of feed in the feed shed. Rats and mice are a constant menace and will do untold damage to sacks and feed unless the farm cat is helped in its hunting by stacking the feed in small sections so that the cat has access to various parts of the stack. Vermin can be the equivalent of "a thief in the night" eating into the profits and a poultry farmer cannot afford losses of this nature.

The advantages associated with the storing of feed on a slatted platform at least 12 in. from the ground should not be overlooked. This allows the cat to get under the feed stack and some ventilation is assured which helps to keep the food dry. Also if rain enters the shed the bags and their contents are not in danger of rotting by being allowed to lie on the damp floor.

LOSSES ON EGG COLLECTION

Further losses can result from the overloading of egg baskets. How convenient it is to pack those last few dozen eggs onto an already overloaded basket—causing "spider cracks" and converting some of the top price eggs to less than half their original value.

The incidence of "spider cracks" is much too high on some farms and this class of egg, which is not detected until it is candled on the Egg Floor, is graded as second quality and returns less than half its original price.

While on this subject let us investigate some of the advantages to be had from packing the eggs direct from the nest into Keyes fillers. This is not possible on all farms because of farm layout and shed design, however, provision for filler collecting should be made when it is planned to house a considerable number, say 1,000 or more additional layers.

This method of collecting eggs has two distinct advantages over basket collections. In the first place a considerable saving of time can be achieved and secondly, by
eliminating double handling of the eggs, “spider cracks” can be considerably reduced and many second quality eggs avoided.

Some time ago a commercial poultry farmer co-operated with officers of the Department of Agriculture to ascertain the saving that could be made by collecting eggs direct into fillers as opposed to collecting them into baskets.

At that time the farmer was collecting 1,800 eggs daily. The laying pens and openings to the nests faced on the passage-way, and the test consisted of collecting the eggs into egg baskets for six weeks followed by collection of the eggs direct into Keyes fillers for six weeks, followed by a period of two weeks during which the eggs were again collected into baskets.

During the first period in which the eggs were collected into baskets, 4.93 per cent. of them were graded as second quality.

When filler collecting was introduced this figure dropped to 2.96 per cent. and upon returning to basket collecting the percentage rose again to 4.50 per cent.

The reduction in the incidence of second quality eggs brought about by the collection of eggs direct into the fillers resulted in a saving of approximately £2 10s. a week in this instance.

In addition the time spent on collecting, cleaning and casing the eggs ready for market was cut in half down to the extremely good figure of 18 minutes per 30 dozen case packed ready for market. It is suggested that you compare your own time with this figure.

It is obvious that there are many other features relating to the preservation of egg quality but these have been dealt with from time to time in other leaflets.

Whilst on the subject of packing eggs into fillers directly or otherwise I would stress the importance of removing the sawdust which sometimes adheres to the eggs. The “Ben Nevis” egg grading machines recently installed at the Western Australian Egg Marketing Board’s floor, work on a suction principle and any sawdust adhering loosely to the large ends of the eggs is drawn into the suction tubes. At intervals these tubes have to be dismantled and cleaned. The time taken in this operation naturally reduces output and is a charge on the industry. Furthermore the suction is sometimes lost due to the sawdust, with the result that some eggs are not lifted by the suction cups and these eggs remain on the fillers.

When the filler is automatically discharged from the machine any eggs that are left behind could get broken so that the farmer would lose on these eggs.
Poultrymen are therefore strongly advised to co-operate with the Egg Board in this respect. A gentle but firm dusting over the tops of the eggs in the fillers with a fluff duster will assist in this matter. Recourse to the use of steelwool will be necessary where the sawdust sticks firmly to the shells. Eggs which require individual cleaning should be put aside in separate fillers at collection time so that they can be cleaned back in the egg room. Soiled eggs are likely to be left on the fillers in the same way as those which have sawdust adhering to them.

Another point of which farmers should be aware, is that the Ben Nevis grading machine will only take fillers which are the right way up. That is, the eggs must only be packed into the smooth side of each filler with of course the large ends uppermost.

In packing the egg case, it does not matter how the first filler is placed, as long as the shiny side is up. However, the second filler must be rotated through 90 degrees so that the finger grips do not correspond with those of the first filler. The third filler must then correspond with the first and not with the second. Each filler is alternated in this way until each section has it full number of 6 fillers (15 dozen eggs). The empty flat is then placed on the packed sixth filler so that the flat surface is uppermost and adjacent to the lid.

This procedure should be adopted whenever eggs are cased. Eggs should never be packed into the rough side of fillers and the finger grips on any two adjacent fillers should never coincide.

WORK EFFICIENCY

It is an old business adage that "time is money." How evident this becomes when one spends a few minutes looking at some of the routine jobs carried out on a poultry farm and notes the time that could be saved if attention was given to organising these jobs on a proper basis. It does not matter whether you carry 200 or 2,000 birds—there is always a possibility of saving time by a reorganising of chores.

A general appraisal of the farm work should be made with the object of cutting out any of the "dead wood." It is surprising how certain work on the poultry farm can become habit forming until the farmer suddenly realises that the same work can be carried out much more easily by adopting a different approach.

What are some of the features of a well-organised farm? Well one way of saving a great deal of time is to have a well-maintained Kikuyu grass lawn, the clippings from which are fed to the birds direct from the mower. An area of half an acre will grow sufficient green feed for 2,000 laying hens throughout the year and a sprinkling of clover seed broadcast throughout the lawn area will ensure a steady rate of cutting during the winter months.

Another means of saving time and labour is to place more broody coops (if not already in the sheds) in convenient places and as close to the nest-boxes as possible. If the work of handling the broody birds is made easier your broody hens are likely to receive better attention and will therefore return to the lay quicker.

The saving that can be achieved by packing eggs direct from the nest into Keyes fillers has been explained previously and many other examples of how time can be saved on the farm could be given.

During their visit to the United States of America in 1956 the three members of the Australian Poultry Study Team, namely Messrs. A. Q. Bollen; A. A. McArdle; and R. H. Morris, paid attention to ways and means of saving time and work on the poultry farm and in their report entitled "An Investigation of the
A crop of Dale oats grown on clover ley land at the Esperance Plains Research Station. It yielded over 80 bushels to the acre. Both Avon and Dale oats have given particularly high yields in the current season.

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Commercial Poultry Industry in the United State of America—1956" they wrote:—

Dr. S. A. Hart, of the University of California points out that travel takes time, and that reducing travel reduces labour. He considers that the combination of two operations, is one of the best methods of cutting labour costs.

Dr. A. D. Reed, of the same University, considers that the most efficient use of labour is determined by the arrangement of buildings. This view was supported by a visit to a farm where the operator had obtained the services of a "time and motion" expert. He had found that, by changing the position of the laying sheds and using an electric cart, he could reduce the amount of labour per bird and increase the size of his flock from 3,000 to 4,300 layers without increasing his labour force. However, it is considered equally important for the internal shed layout in respect of feeding and egg collection to be such as to reduce time and effort to a minimum.

After an exhaustive study of labour-saving devices, work arrangement and simplification, the following points were recorded as worthy of consideration in reducing labour costs.

(a) Combine different operations wherever possible.
(b) Make the birds lay at convenient pick-up points.
(c) Reduce the number of times each egg is handled.
(d) Ensure that buildings are conveniently placed to reduce travel.
(e) Start a new operation where the previous one ends.
(f) Use a trolley or mono-rail carrier to reduce the number of trips.
(g) Use a trolley or carrier large enough to complete a circuit without having to reload halfway around, so avoiding "back-tracking."
(h) Have sheds of reasonable length to make full use of a trolley or mono-rail carrier.
(i) Haul maximum loads.
(j) Have doors and paths the proper width and surface.
(k) Look at each operation and decide:
   (i) Is it really necessary?
   (ii) Can it be simplified?
   (iii) Is it being done in the right order?

From a business angle, any saving of time on everyday chores should give the farmer more time to study his birds which are his profit makers.

**RECORD KEEPING**

At this juncture it would not be out of place to touch on the subject of record keeping on the farm. It is a fact that very few poultry farmers (including some of the best managers) keep records of their production in a manner which could be of real use to them throughout the year.
Whilst it is appreciated that poultry farming is a seven-day-a-week job, it still behoves a progressive farmer to keep at least a simplified form of easy-to-read records or production figures from his various pens and finally on the whole flock (see specimens at the end of this article). The laying house record, kept preferably in the pen itself will give a farmer a good insight into the daily performance of the flock and is often the means of keeping him in touch with the "weak spots" in particular pens. For instance a carefully-kept record indicates whether or not further culling and/or grading is necessary.

The gross profit for the farm (profit over food costs) can be derived by keeping a record of figures extracted from egg certificates and food consumption data. In brief, the average price per dozen eggs is the key figure and is used to calculate the weekly gross profit over feed costs for the laying flock.

A simplified method of obtaining this information is appended (see Farm Record Sheet), and when completed each fortnight will provide the farmer with complete figures for the year on his flock. The farmer holding a permit to sell eggs privately must of course, include these sales when estimating the average price per dozen he receives for his eggs after deducting Egg Board charges.

It must be remembered that the amount shown on the Egg Board cheque is for eggs delivered to the Board for the fortnight prior to the week in which the cheque is received.

During this waiting period your production figure may have changed considerably and to obtain a more up-to-the-moment profit figure you should calculate the number of dozen eggs produced for the current week and use the last average price per dozen, as calculated from the previous Board certificates. The value of the eggs obtained is then used to determine the profit or loss for that week. Should a price change occur during this waiting period simply make an allowance for this.

Each of the specimen record sheets shown, is intended to occupy one sheet of foolscap paper.

### PEN RECORD FOR CHICKENS

<table>
<thead>
<tr>
<th>Pen No.</th>
<th>Date Hatched</th>
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</table>

**Week Commencing**

**Breed**

**Number of Birds carried over from previous fortnight**

<table>
<thead>
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<th>Day</th>
<th>Destroyed</th>
<th>Deaths</th>
<th>Remarks</th>
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<td>Saturday</td>
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</tbody>
</table>

**Totals**

**Number of Birds, week ending Saturday**

14
CHICKEN REARING RECORDS FOR FLOCK

No. of Chickens Started

Breed

Rearing Pen Nos

Hatched on

<table>
<thead>
<tr>
<th>Weeks</th>
<th>Date (Week Comm.)</th>
<th>Daily Wastage</th>
<th>Total Weekly Wastage</th>
<th>No. Surviving at end of week</th>
<th>Remarks</th>
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<tr>
<td>1</td>
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<td>22</td>
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</tr>
</tbody>
</table>

Summary

Number Started

Number Survived to 22 weeks (%)...

Wastage (Number) (%)...

Number Sold... Pullets... Cockerels...

15
# Laying House Record

**Week Commencing**

**Breed**

**Number of Birds carried over from previous Sheet**

<table>
<thead>
<tr>
<th>Day</th>
<th>Egg Collections</th>
<th>Birds</th>
<th>Transfers</th>
<th>% Lay</th>
<th>Remarks</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>1st 2nd 3rd Total</td>
<td>Culls</td>
<td>Dead Broodies</td>
<td>+</td>
<td>-</td>
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</table>

**Egg Collections**

**Birds**

**Transfers**

**% Lay**

**Remarks**

**Number of Birds carried over from the fourth Saturday**

---

16
HISTORY SHEET FOR LAYING FLOCK


No. Started—475.

Number Reared to 22 weeks—447 (93.9%).

Mortality—28 (6.1%).

Number Sold—Nil.

First Egg Laid on 12th January, 1959 (22 weeks).

Number Housed—447. Housed in Pens 6, 7 and 8.

<table>
<thead>
<tr>
<th>Weeks</th>
<th>Date week commencing</th>
<th>Eggs</th>
<th>Progressive</th>
<th>Hen-housed figure</th>
<th>% Lay</th>
<th>Culls</th>
<th>Deaths</th>
<th>Prog. Wastage</th>
<th>No. of Layers</th>
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<td>3</td>
<td>3</td>
<td>3</td>
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<td>3</td>
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<td>32.7</td>
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</table>
### Farm Record Sheet

#### Information from Egg Dockets

<table>
<thead>
<tr>
<th>Date Board Cheque and/or Cash (Private Sales) Received</th>
<th>Total Dozen Sold</th>
<th>Gross Amount Received</th>
<th>Deductions</th>
<th>Nett Value of Eggs</th>
<th>Export</th>
<th>Export</th>
<th>Local</th>
<th>Local</th>
<th>Local</th>
<th>Second Quality</th>
<th>Approximate Feed Cost for Layers**</th>
<th>Approximate Feed Cost for Chickens</th>
<th>Gross Profit or Loss over Feed Costs</th>
<th>Average No. of Layers</th>
<th>Per Cent Lay Flock</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Covering two weeks</strong></td>
<td>584</td>
<td>£ 131 8 0</td>
<td>£ 14 12 0</td>
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* To obtain this figure without referring to invoices for feed, assume that 1,000 laying birds will consume approximately two tons of feed in two weeks and use prevailing prices.

** The gross profit over feed costs is obtained by subtracting the cost of the food from the net value of the eggs.

*Example:* Assuming that there are no chickens on hand, one thousand laying birds in two weeks will consume two tons of feed costing £60 and when laying at a 50% rate with eggs netting 4s. a dozen, will return £116 16s., thus:

\[
\begin{align*}
\text{Net Value of Eggs} & = 584 \text{ dozen eggs at 4s. per dozen} \\
& = 116 \text{ 16 0} \\
\text{Cost of Feed} & = 60 \text{ 0 0} \\
\text{Gross Profit (over feed)} & = 56 \text{ 16 0}
\end{align*}
\]
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