Hens under natural daylight conditions follow a seasonal breeding pattern like many other animals. Daylength changes as the seasons change. Spring represents new growth and mild conditions. This is an ideal time to breed, when conditions are best. In the winter feed is less readily available, so it is not such a good time to breed. Daylength acts as a biological trigger mechanism so the hens' breeding matches the food needs of the young.

The problem with this ...

Improving egg size

The eggs most commonly bought are in the 50–60 g range, with 50 g being the most popular. Ideally your laying flock should produce as many eggs as possible in this size range.

Find out the price of 45 g, 50 g, 55 g, and 60 g eggs. Which bring the best price? If you were a commercial producer, what would be the ideal size to produce?

Use the table below to work out the performance of the school or your home flock.

How to improve egg size

Egg size is affected before egg numbers if the diet is slightly deficient or reduced. The following are some areas that can be checked if egg size is too small:

- The diet must meet the needs of the flock. Protein and calcium in particular affect egg size.
- Try to keep the amount of food eaten constant by controlling the temperature. If the temperature gets too high, hens will eat much less food, and this affects egg size.
- Check and record the average daily feed intake. For a healthy flock it should be about 100 g of feed per bird per day.

Yolk colour

Most of us like nice golden yellow yolks. While colour and nutrition are not related, yolk colour is an important *preference* (marketing) factor.

Yolk colours of eggs can be compared to a standard colour chart by use of the Roche Yolk Colour Fan. You might like to buy a sample of eggs from various shops and check the yolk colours. Test your own or the school's eggs.

Yolk colour can be changed by altering the type of diet and the level of feed intake. Things that can be done to improve yolk colour:

- Lucerne meal, maize, hominy meal and corn gluten are useful sources of pigment. Any fresh green feed improves colour. Some commercial feeds contain pigment supplements. It can take up to 2–3 weeks for yolk colour to change when the diet is changed.

Targets for egg size

Period	Age in weeks	67 g (%)	61 g (%)	55 g (%)	49 g (%)	2nd quality (%)	Pullet (%)
1	22	0.0	0.0	0.2	2.8	3.4	93.4
2	26	0.0	0.6	6.3	22.5	2.0	68.6
3	30	0.6	6.6	26.8	37.2	2.8	26.1
4	34	1.1	16.1	47.6	28.5	2.8	3.9
5	38	2.8	27.5	49.1	16.2	3.2	1.0
6	42	4.7	33.7	45.7	11.5	3.7	0.6
7	46	6.8	37.7	41.7	9.0	4.2	0.5
8	50	8.7	39.4	38.6	7.9	4.7	0.4
9	54	10.1	39.9	36.7	7.5	5.3	0.3
10	58	11.3	41.7	34.5	6.0	5.9	0.3
11	62	12.7	41.7	32.5	5.6	6.6	0.4
12	66	13.9	43.5	30.4	4.4	7.4	0.1
13	70	16.1	42.5	28.2	4.3	8.1	0.3
14	74	16.6	43.8	26.5	3.4	9.3	0.1
15	78	17.0	44.0	25.6	3.0	10.0	0.1
16	82	17.5	44.5	23.9	2.8	10.8	0.1

Based on data from commercial farms in the Farm Management Recording Scheme.