

Organic or conventional farming – what’s the difference?

Data sheet A3 – Sheep farm data

This data comes from a real scientific investigation comparing sheep production on conventional and organic farms. The study collected data from four flocks.

Your task is to analyse the data from all the data sheets, and make recommendations to help the farmers increase their yields of lamb and wool.

Ewe reproductive performance

| | Year | Lower Twiddle Farm | Higher Twiddle Farm | Cairn Farm | Burnside Farm |
|--|------|--------------------|---------------------|------------|---------------|
| Type of farm | | conventional | organic | organic | organic |
| Barren rate (% of ewes to which no lambs were born) | 1998 | 3.3 | 9.4 | 4.6 | 8.1 |
| | 1999 | 4.4 | 14.5 | 7.1 | 9.4 |
| | 2000 | 5.0 | 8.3 | 7.1 | 7.5 |
| Lambs born alive (April) | 1998 | 131 | 126 | 133 | 120 |
| | 1999 | 128 | 104 | 107 | 115 |
| | 2000 | 136 | 91 | 103 | 111 |
| Lambs reared (September) | 1998 | 128 | 121 | 129 | 121 |
| | 1999 | 124 | 96 | 105 | 109 |
| | 2000 | 134 | 88 | 97 | 103 |

Questions

- Which type of farm had the lowest barren rate in 2000?
 - In which year were fewest lambs born?
 - Was the barren rate similar for all the organic flocks?
 - What do you predict will happen to the barren rate on each farm in 2001?
- On which type of farm were most lambs born alive in **i) 1998 ii) 2000**?
 - Describe the trend in the number of lambs born alive on each farm over the three years of the study.
- Which type of farm was able to rear most lambs in **i) 1998 ii) 2000**?
 - Describe the trend in the number of lambs alive in September on each farm over the three years of the study.