

Organic or conventional farming – what’s the difference?

Data sheet A1 – Sheep farm data

These data come 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.

The farms

	Lower Twiddle Farm	Higher Twiddle Farm	Cairn Farm	Burnside Farm
Type of farm	conventional	organic	organic	organic
Mean breeding ewe numbers	181	180	153	171
Land area description (hectares, Ha)				
Native hill	58 (71%)	77 (74%)	130 (79%)	86 (71%)
Improved hill	19 (23%)	21 (20%)	30 (18%)	30 (25%)
Inbye fields	5 (6%)	6 (5%)	5 (3%)	5 (4%)

‘Native hill’ is peat of varying depths, with heather, moor grass and sedges growing on it

‘Improved hill’ has been reseeded to increase the amount of grass and clover growing on it. Conventionally managed hills receive ammonium nitrate fertiliser in the spring (50 kg N ha^{-1} – kilograms of nitrogen per hectare).

‘Inbye’ fields contain a range of mineral and peaty soils with 60–80% grass and clover cover. Conventionally managed fields receive ammonium nitrate fertiliser in the spring (230 kg N ha^{-1}). Farmyard manure is used on organically managed inbye fields.

Questions

- How is the conventionally managed farm similar to the organic farms?
 - How is the conventionally managed farm different to the organic farms?
- How is Higher Twiddle Farm similar to the other organic farms?
 - How is Higher Twiddle Farm different to the other organic farms?
- Why is farmyard manure used as a fertiliser on the organic farms?
- Do you think that the four farms used for the study are similar?
 - Explain the reasons for your answer to 4a).