

## Keeping cattle healthy

### Activity sheet – Solving the problem

The **symptoms** shown by the cattle on West Hill, Oak Bank, Lane Ends and Southfield farms are caused by a **deficiency** of copper. The body needs copper for some essential enzymes to work properly. Molybdenum in the diet 'blocks' the absorption of copper, so the cattle show deficiency symptoms even though the levels of copper in the food they eat are not low.

The farmers have different ideas about what should be done.

*Feed large amounts of copper supplements.*

**Oak Bank Farm**

*Add a copper-rich fertiliser to the soil, so there will be more copper in the grass.*

**Southfield Farm**

*Rent some land from Higher Twiddle and graze the cattle there.*

**Lane Ends Farm**

*Gradually increase the amount of copper supplements in the diet.*

**West Hill Farm**

#### Think about

- Which farmer has the best idea?
- Why the ideas of the other farmers are unlikely to work?

#### Your task

Your task is to produce a report to explain to the farmers:

- reasons why the cattle are unhealthy
- your recommendations for improving the health of the cattle.

You can produce your report as a leaflet, blog, letter or email to the local paper, video report for a news program, slide presentation or formal report.

When you create your report, make sure you use appropriate language and explain any scientific terms. You might wish to include diagrams or tables to show the results of the analysis for trace elements.