

Cows really can predict the rain. Scientists prove they are more likely to lie down when the weather is cold

- **Cows lie down when it is cold and stand when it is hot, research shows**
- **The study was done by the Universities of Arizona and Northern Missouri**
- **They looked at the issue as America's milk production suffers with the hot weather**

BY Jaymi Mccann

The old wives' tale that cows lie down when it is about to rain may not be so far fetched after all, according to a new study by scientists.

For researchers have discovered that cows stand up for longer periods when it is hot, proving there is a definite link between their behaviour and the weather.

They also suggest that cows lie down when it is colder, which is often what happens to the weather just before it rains.

Weather gauge: Cows are more likely to lie down when it is cold, the study shows

The study unwittingly lends credibility to British farming folklore which has long suggested that the sight of a herd of the beasts lying down in a field is a good sign that rain is on the way. University animal scientists specifically researched the body temperature of cattle across the great American west because when cows are too hot, their milk production suffers.

And the study, by the universities of Arizona and Northwest Missouri, found that cows stand up for longer when it is hotter because it helps lower their core body temperature.

By exposing more of their surface area, it allows their body heat to disperse in the air. When cows get too hot they pant more, eat less and so produce less milk.

Cows lie down when they want to conserve heat, and energy, and farmers in particularly hot climates should try and get their herds to lie down more.

Research: The study was conducted by the University of Arizona (pictured) and the University of Northern Missouri

But this may also unwittingly explain why it may be true that cows lie down when rain is on the way in more temperate climates.

As any weather enthusiast knows, rain is usually preceded by a bout of low pressure which is easy to detect and is also a sign that it is about to get colder.

If cows lose heat by standing up, as the US study now suggests, then detecting the arrival of colder weather will make them lie down.

Lead researcher Dr Jamison Allen of the University of Arizona presented his findings to a US conference on animal science.

He said: 'Predicting heat stress is vital for keeping cows healthy and productive. 'Cows prefer standing to lying on hot days. Cows stand to allow more of their surface area to disperse heat into the air.

'We can predict the animal's behaviour to stand according to their core temperature. 'But by encouraging cows to lie down, producers will also help their cows conserve energy.' Further studies will look specifically at how cow's react to other aspects of the weather including humidity.