Foot-and-mouth strain identified

The strain of foot-and-mouth disease found at a Surrey farm has been identified, Defra has said.

The strain in infected cattle is identical to that used for vaccines at an animal disease research site at Pirbright, three miles from the farm.

Defra could not say the laboratory complex was the source but has increased the size of the protection and surveillance zones in the area.

An urgent assessment of biosecurity has begun at the institute.

See map of Pirbright laboratory site

Precautionary measures

The strain is not one normally found in animals but is used in vaccine production and in diagnostic laboratories.

In a statement, the Department for Environment, Food and Rural Affairs (Defra), said: "The present indications are that this strain is a 01 BFS67-like virus, isolated in the 1967 foot-and-mouth disease outbreak in Great Britain."

The strain was used in a vaccine batch manufactured on 16 July by a private pharmaceutical company Merial Animal Health.

The firm shares the Pirbright site with the government's Institute for Animal Health (IAH), which conducts research into foot-and-mouth and where the strain is also present.

Merial voluntarily halted vaccine production as a precaution.

BBC science correspondent David Shukman said that if the virus did escape from the Pirbright laboratory, the question to ask was how.

He said: "Like the manufacture of any vaccine to defend against a virus, this one used samples of live virus in the..."
production process.

"Experts speculate that either it escaped through the ventilation or possibly an employee carried it out accidentally on a boot or clothing."

Chief Veterinary Officer Debby Reynolds said it was too soon to say anything conclusive about the source of the virus but it was clear which strain was involved.

"That is carried at the Pirbright facility, at Meriel for vaccine production, and indeed at the Institute for Animal Health, on the same premises on the same location for diagnostic purposes," she said.

**Hopeful news**

Microbiology expert Hugh Pennington said that if the source is identified as the Pirbright laboratory it could be welcome news.

He said: "If we know exactly where the virus has come from, and particularly if it's a vaccine type of virus, it's less likely to be a nasty virus.

"We know there isn't uncertainty about the source, so that means there isn't going to be virus in Cumbria or in Scotland, or in Wales from the same source as the virus that has caused this infection in Surrey, it's a localised problem."

An urgent review has been launched into biosecurity measures at Pirbright, led by Professor Brian Spratt of Imperial University, who is due to report to Environment Secretary Hilary Benn and Dr Reynolds.

Defra said that it was too soon to reach any firm conclusions.

Merial said in a statement: "The decision to suspend production has been taken in full consultation with Defra and will enable Defra to carry out a thorough investigation into all possible sources of this outbreak."

Following the outbreak on the farm a 3km protection zone was put in place around the premises, close to the village of Wanborough, to try to halt the spread of the disease which wreaked havoc across the UK in 2001.

Dr Reynolds has now ordered a single protection zone to encompass both the infected farm premises and the Pirbright site, with a single 10km radius surveillance zone.

There is also an 8km air exclusion zone around the site.

There has been a cull of one other herd of cattle adjacent to the farm as a precautionary measure but there were no signs of infection in any animals there, Dr Reynolds confirmed.

She appealed to farmers to be vigilant and to check their animals for any sign of foot-and-mouth disease.
Andrew Biggs, of the British Cattle Veterinary Association, said: "It doesn't surprise me greatly. The proximity of this farm to Pirbright was something some of us had noticed."

Paul Temple, of the National Farmers' Union, said he was keeping an open mind over the situation.

A ban on the movement of livestock in England, Scotland and Wales which put in place after foot-and-mouth was confirmed at Wolford farm, near Guildford, on Friday night will continue.

Some 64 cattle have since been culled at the farm after testing positive for the foot-and-mouth.

On Saturday evening Prime Minister Gordon Brown chaired his second Cobra emergency committee meeting of the day on the issue after he cut short his Dorset holiday to return to London.

He is due to chair another meeting of Cobra on Sunday morning.

The outbreak in 2001 led to between 6.5 million and 10 million animals being destroyed and cost as much as £8.5bn.

Defra has set up a helpline in response to the latest outbreak on 08459 335577.

Reproduced for educational purposes only. Fair Use relied upon.
Disease levy plan angers farmers

Farmers are angry at government plans to make them pay a levy towards the cost of dealing with animal diseases, such as foot and mouth and bird flu.

Ministers want to set up an independent body to oversee policy by 2012 and say it is "right" that farmers contribute.

It cost the taxpayer £44m last year to prevent and prepare for outbreaks.

National Farmers' Union president Peter Kendall described the proposal, which would force the industry to pay half that bill, as "outrageous".

The Department for Environment, Food and Rural Affairs (Defra) says it wants to ensure funding is in place to reduce the risks and costs of diseases such as foot and mouth, bluetongue and bird flu.

The proposals would set up an independent body, made up of experts in public and animal health along with people with industry or wildlife knowledge.

In the event of an outbreak, its leaders would make key decisions on issues such as movement controls and payments for culled animals, on the advice of the chief veterinary officer.

It would also be responsible for policy on endemic diseases such as bovine TB.

Mr Kendall said he was "furious" - given that the probable source of the 2007 foot and mouth disease outbreak, which he said cost the industry more than £100m, had been identified as a government laboratory.

Investigators concluded the virus had probably escaped from a drain at the government's Pirbright labs in Surrey, forcing livestock movement restrictions to be imposed.

"I find it incredible that ministers can suggest that, in future, livestock farmers should pay half of the government costs for an incident like this," said Mr Kendall.

"[Defra] wants us to pay for exotic disease but we don't think they do enough to keep these diseases out of the country.

"Farmers will be dismayed by these proposals and they have little confidence in Defra on animal health issues."

'Collective action'

Mr Kendall said the industry was losing millions of pounds because of bovine TB, which was reaching epidemic proportions in places and had wiped out more than 30,000 cattle last year.

However, he gave a cautious welcome to any independent body which was a "genuine partnership" between farmers and the government.

Environment Secretary Hilary Benn said the government spent £400 million per year on animal health and welfare and that costs rose
during outbreaks. "Livestock owners are worst affected by disease outbreaks and they also benefit from disease control, where their livestock might otherwise become infected," he said. "It's right that they should be more involved in making decisions about how we prevent and handle those diseases, and contribute to the costs of collective action to tackle disease threats."

The government says the proposals are in line with recommendations made by Sir Iain Anderson's inquiry into the foot and mouth outbreak of 2001. He said those who benefit from wiping out such diseases should help to pay the costs of eradicating them.
Foot-and-mouth cash demand fails

A damages claim by farmers affected by cattle movement restrictions after the 2007 foot-and-mouth outbreak has been rejected by the High Court.

A judge ruled the claim had "no real prospect of success" and should not go forward to a full hearing.

The action was brought by seven farmers with land in Surrey, Kent, Yorkshire, Cumbria and Wales - none of whose cattle were culled in the outbreak.

They claimed livestock travel restrictions caused them heavy losses.

The restrictions were put in place to control the outbreak of the disease.

The farmers sued the Institute for Animal Health (IAH) and Merial Animal Health Ltd, operators of the Pirbright laboratory, and the Department for the Environment, Food and Rural Affairs, which licensed and regulated the facility.

The farmers said the defendants were "seriously culpable".

But Mr Justice Tugendhat held that the claimants had no real chance of establishing that the defendants owed them a legal duty of care, in respect of the indirect economic loss they claimed to have suffered.

Claims settled

The foot-and-mouth virus is alleged to have leaked out of drains at the Pirbright site and infected premises in the nearby area.

The government imposed measures preventing the disease from being spread, including nationwide restrictions on movement of livestock, as soon as the outbreak was discovered.

IAH and Merial settled the claims of seven claimants, who had farms adjacent to or nearby the site and whose livestock was slaughtered, but did so without admitting liability.

However, the defendants resisted claims by the other seven claimants, who did not lose livestock through slaughter, but alleged they suffered loss through complying with government measures.

Meanwhile, farmers' leaders have hit out at government plans to make them pay a levy towards the cost of dealing with animal diseases such as foot and mouth.

It cost the taxpayer £44m last year to prevent and prepare for outbreaks and ministers say it is "right" that farmers contribute.

But National Farmers' Union president Peter Kendall said the plans, which would see the industry pay half of the bill, were "outrageous".

The 2007 outbreak of foot-and-mouth brought livestock travel restrictions
Q&A: Foot-and-mouth disease

Foot-and-mouth disease has returned to Surrey, where an outbreak occurred in August.

In 2001, a major outbreak hit the UK which saw about seven million animals slaughtered and caused devastation for many farms and rural businesses.

What is foot-and-mouth disease?

Foot-and-mouth is a virus which affects animals - very few human cases have ever been recorded.

It is endemic in animals in many parts of the world including Asia, Africa, the Middle East and South America.

The disease affects cloven-hoofed animals, in particular cattle, sheep, pigs, goats and deer.

Other animals that can be affected include llamas and alpacas, some wild animals such as hedgehogs and coypu, any wild cloven-footed animals including deer, and zoo animals such as elephants.

It has serious implications for animal health and for the economics of the livestock industry.

There are seven different foot-and-mouth disease types - O, A, C, SAT-1, SAT-2, SAT-3 and Asia-1. They show some regionality, with the O type most common.

Foot-and-mouth disease cannot be cured and usually lasts for two to three weeks before the animal recovers naturally.

How does it affect the animals?

The disease causes fever followed by the appearance of blisters, mostly affecting the mouth and feet.

It is rare for the disease to be fatal, but it can cause death in very young animals - which may not show any symptoms - or in older animals if the form of the disease is severe enough.

Affected animals lose their condition and can suffer from secondary bacterial infections.
In dairy cattle, milk yields will be lost and the cattle's value will be permanently reduced.

Other potential effects include sterility, lameness and chronic heart disease.

**How is it spread?**

The disease can be spread through the air, and over long distances if the climate is right.

Animals pick up the virus either by direct contact with an infected animal or contact with something which has been contaminated by an animal. It can also be spread from an infected carcase.

There have been cases of the disease linked to imports of infected meat and meat products.

Movements of animals, people and vehicles can assist the spread of the disease.

Trucks, lorries, market places, and loading ramps need to be disinfected, and the wheels of passing vehicles can pick up the virus from contaminated roads.

**Does it affect humans?**

Foot-and-mouth disease crosses the species barrier to humans with very great difficulty.

The Department of Health says cases of people contracting the disease are very rare. The last human case in the UK was in 1966.

The cases in humans so far have been mild, short-lived, and no medical treatment has been needed.

The symptoms in humans have been similar to flu, with some blisters.

The Food Standards Agency says the presence of the disease in animals does not affect the human food chain.

There is a condition called hand, foot and mouth disease that affects humans, but it is unrelated to animal foot-and-mouth.

**How is the disease contained?**

Animals are slaughtered because if the disease were allowed to spread across the country it would cause major problems for the farming economy and animal welfare.

Once a case of foot-and-mouth is confirmed in the UK, movement restrictions are put in place to help contain the disease.

Officials set up a 3km protection zone and a surveillance zone with a minimum radius of 10km.
In the protection zone, the movement of animals, animal products, feed and bedding are prohibited, unless a special licence is obtained.

A ban on movement across a wider area may also be introduced, and public rights of way could be closed to prevent the disease spreading.

In both the protection and surveillance zones, there will be increased levels of biosecurity on farms, with disinfectant used on footwear, clothing and vehicles.

Infected and other susceptible animals are valued and slaughtered.

Products from animals in the prohibited zones will also be subject to treatment to ensure destruction of the foot-and-mouth disease virus.

Such treatments can include the pasteurisation of milk, which is a normal process for most milk produced in the UK, as well as heat treatment or deboning and maturation of meat in certain circumstances.

**How does it affect farmers in terms of trade?**

Export health certificates for animals and animal products will be withdrawn.

The European Commission is likely to ban all British milk, meat and livestock exports until the disease is contained.

International restrictions are likely to be imposed on exports to countries outside the EU by the international veterinary organisation, the OIE.

If a national movement ban is in place, farmers will also not be able to take animals to slaughter or market.
Q&A: Foot-and-mouth vaccine

By Jeremy Cooke
BBC Rural Affairs correspondent

Chief veterinary officer Debby Reynolds has announced the government decision not to vaccinate any animals, despite the latest foot-and-mouth outbreak.

How would a vaccination work?

Vets use the foot-and-mouth vaccine to stop the spread of the disease. They operate in rings or zones surrounding an outbreak and vaccinate all susceptible stock in that zone.

The idea is to create a sort of "fire break", to isolate the outbreak inside the ring so it can be contained and eradicated.

What's the argument for it?

The argument for vaccination is that it can slow down or stop the spread of foot-and-mouth disease.

It is especially useful when vets fear an outbreak is getting out of control and is moving too fast for simple culling of animals to be effective.

Even if it does not stop the disease it can slow the spread sufficiently to allow the culling operation to catch up.

What's the argument against it?

Even if vaccination is used, often animals have to be culled anyway.

This is because the vaccination does not cure stock with foot-and-mouth disease and often it can be difficult to establish easily which individual animals are infected.

What are the cost and practical implications?

There are no major cost or practical implications standing in the way of vaccination.

Under the government's foot-and-mouth contingency plan, a team of vets is placed on stand-by immediately there is a new outbreak of the disease.

In the current situation that team is ready to move into the disease zone as soon as they receive orders.
What do other countries do?

Some - especially in the developing world - may simply live with foot-and-mouth disease. Others, such as Holland, use the "vaccinate and cull" system.

In the outbreak of foot-and-mouth in the Netherlands six years ago thousands of animals were vaccinated but all were later killed. In the UK the preferred policy is to rely on culling to eradicate the disease.

Can vaccinated animals still spread the disease?

Yes. But vets say that vaccination helps to "dampen the shedding of the virus". In other words it helps slow the spread from infected animals.

How could vaccinating affect exports?

It's not good.

The World Organisation for Animal Health has three categories for countries regarding foot-and-mouth.


It is the third category which is best for exports and that is what the UK government would like to maintain.

What does Defra say?

Defra says its vets are ready to vaccinate if needed. But they say the risk of spread outside the immediate area of the outbreak is not great. Consequently, no cull yet.
**Q&A: Bluetongue disease**

**Government vets have confirmed bluetongue disease is circulating in the UK and is now classed as an outbreak. What is bluetongue disease?**

Bluetongue is a non-contagious virus spread by a species of midge and is most commonly seen in the late summer and autumn.

All ruminants, such as cattle, goats, deer and sheep, are susceptible, although symptoms are generally most severe in sheep.

**Will infected animals be culled?**

Because bluetongue is spread by insects, Defra says compulsory slaughter of infected livestock would not normally be carried out.

However, the first five infected animals in Suffolk were killed and tests conducted to determine whether bluetongue had spread to other animals.

Government chief vet Fred Landeg had ruled out a cull because the disease cannot be passed from animal to animal and it would not help slaughter of infected livestock would not normally be carried out.

**Where has the disease been found?**

Bluetongue was first discovered in South Africa but has since been found in most countries in the tropics and sub-tropics.

Since August 2006, the virus has been found in the Netherlands, Belgium, Luxembourg, Germany and northern France.

In late August 2008 two cases of bluetongue were found in rams near Lewes, East Sussex and Hemel Hempstead, Hertfordshire, both imported from Central France.

The disease was also found in eight imported cattle on premises near Tiverton, Devon which originated from Germany.

In September, 18 cattle imported from Germany were found to have the disease near Bishop Auckland, County Durham and another case was found on a premises near Yeovil, in Somerset, which originated from France.
There have also been outbreaks of different strains of the disease in Greece, Italy, Corsica and the Balearic Islands since 1998.
Cases have also occurred in Bulgaria, Croatia, Macedonia and Yugoslavia.

**What restrictions are being placed on British farmers?**

A 20km (12.4 miles) control zone is put in place around affected premises.
Ruminant animals can move within the zone, but not out of it, except to slaughter in the wider protection zone.
Farmers within the protection zone cannot transport livestock beyond the zone boundaries.

**Can livestock be vaccinated against bluetongue?**

Yes, a vaccine is available to all farmers in England and Wales with livestock inside the protection zone.
A voluntary programme is in operation.
Private vets are responsible for prescribing either the Intervet or Merial vaccine to sheep or cattle under their care following a clinical assessment, but need not administer it themselves.
Vaccinations will be compulsory in farms in Scotland for all seven million sheep and cattle from the start of the vector-free period which will begin in November, at the earliest, or possibly December.

Reproduced for educational purposes only. Fair Use relied upon.