

# The Irish Famine



## The Coming of the Blight

### The first news

Early in August 1845, an unexpected letter arrived on the desk of the British Prime Minister, Sir Robert Peel. It told him of a strange disease that had hit the potato crop on the Isle of Wight, off the south coast of England. Though nobody realised it then, this letter was the first word that the blight, a new potato disease, had arrived in Britain from North America.

Reports of the damage to the Isle of Wight crop had also reached Dr John Lindley, editor of the *Gardeners' Chronicle* and Professor of Botany at the University of London. It did not worry him too much. On 16 August, he wrote that “a blight of unusual character” had appeared on potatoes in the island, and asked readers to send any information they had about it. Just a week later, the *Gardeners' Chronicle* ran a far more dramatic story:

A fearful malady has broken out among the potato crop. On all sides we hear of the destruction. In Belgium the fields are said to be completely desolated. There is hardly a sound sample in Covent Garden market ... As for cure of this distemper, there is none ... We are visited by a great calamity which we must bear.

The threat to Britain was serious because hard times and high grain prices were forcing ordinary working people to turn to potatoes, instead of bread, as a main source of food. In Ireland, over 3 million people lived almost entirely on potatoes. For them, a crop failure could mean a disaster.

### **The blight hits Ireland**

David Moore was the Director of the Botanic Gardens in Dublin and a regular reader of the *Gardeners' Chronicle*. He had read Dr Lindley's report on the new disease and was keeping a close eye on the potato plot in the Gardens. On 20 August, he noticed that the leaves of the plants were turning black and withering. He feared that the terrible blight had arrived in Ireland.

News of the outbreak was carried in *The Dublin Evening Post* on 6 September. Within days, there were similar reports from around the country. By mid-October every county in Ireland had been affected.

Back in London, the Government had become alarmed. It set up a Scientific Commission to study the problem and discover how the potato could be saved. Dr Lindley was

sent to Dublin, where he joined forces with Dr Robert Kane, a local scientist. After some hurried research, they estimated that half the potato crop in Ireland had been destroyed. They published advice on how people could make best use of diseased potatoes, and on how to stop the blight from spreading.

Unfortunately, their advice proved useless. Nothing could be done to stop potatoes from rotting into a foul-smelling mush.

### **The cause**

What had caused the disease? How had it spread so rapidly? Like most scientists, Dr Lindley believed that bad weather was the cause. He believed that the potatoes had become laden with water as a result of the heavy rain, and that a wet rot had set in. He dismissed suggestions that a fungus might be responsible for the disease, even though he had actually seen such a growth on blighted potatoes. He argued that the fungus was the result of the rot, not the cause.

Sadly, he and his colleagues were mistaken. Fifteen years later, it was discovered that a fungus, *Phytophthora infestans*, had caused the potato blight.

The fungus, a microscopic organism, first appeared as a whitish growth on the decaying leaf of the potato plant. It was barely visible to the naked eye, but under a microscope it was seen as a great branching network of

filaments or tubes. Each tube contained the countless spores that enabled the fungus to reproduce itself rapidly.

Once a single spore settled on a leaf, it spurted into growth, sending out its slender tubes to every corner. The destruction moved with lightning speed: within hours an entire field of potatoes was infected!

The spores were carried through the air in tiny droplets of moisture. When the weather was warm and moist, as it was in Ireland in the summer of 1845, everything was set for the spread of blight.

### THE CURE FOR BLIGHT

Walking by a vineyard in France one day in 1882, a Mr Millardet noticed that the grapes close to the roadside had remained free of attacks by blight. The roadside grapes had been sprayed with a mixture of copper sulphate and hydrated lime so that people wouldn't steal them. By 1885 Mr Millardet had also developed an effective treatment for blight. That was forty years too late for the millions of Irish poor whose precious potato crop had rotted overnight in that fateful autumn of 1845.

*Blight on a potato*



