## Observations

## A wild goose chase

## Jonathan Leake

For Bernard Matthews, the most obvious consolation for the destruction of nearly 160,000 of his "bootiful" battery-reared turkeys lies in the timing. Just a few weeks ago the outbreak could have wrecked sales of the 2.7 million birds he puts on the nation's festive dinner tables. As it is, it will make scarcely a dent in the multimillionpound profits of what has become one of Europe's most successful intensive farming operations.

However, for Matthews, and his fellow poultry industry moguls, whose factory farms dot East Anglia, there is a more important consolation. This is that both the Department for Environment Food and Rural Affairs (Defra) and the public have been so easily persuaded that wild birds were the likely source of the outbreak.

Peter Bradnock, chief executive of the British Poultry Council, was quick to offer such an explanation when the outbreak was confirmed as the dreaded H5N1. "The most likely source is a wild bird," he declared firmly. "Faeces on the concrete outside could have been walked in by a worker or it could have been deposited on the roof."

It was a claim without the least shred of evidence. Confirmation of the H5N1 strain had come less than two hours earlier and the scientific investigation had yet to begin. But Bradnock's suggestions ran far and wide in the national media.

A hint that the real answer might be more complex comes from a survey by Defra, whose inspectors have spent five years swabbing the rectums of 5,000 wild birds to see if any were carrying H5N1 to Britain. None were – although a few had other, relatively harmless,



Can wild birds really be responsible for the outbreak of the H5N1 virus in Suffolk?

flu strains. This may be a tiny sample compared with the total bird population – but the results are enough to suggest the virus remains rare. The only positive H5N1-carrying wild bird found in Britain to date is a swan washed up on the coast of Scotland in 2006.

Given this, how likely is it that an infected bird managed first to target a turkey farm and then to bypass all the defences set up to prevent such break-ins? Possible? Obviously. But likely? Hardly.

The implication is either that Defra's survey was flawed – or that the virus's route into Matthews's plant involved something no poultry mogul will want to admit to: human error. Perhaps that is why outbreaks tend to follow a similar course, with farmers and governments pushing the idea that wild birds are to blame.

Also targeted have been the backyard poultry farmers – the peasants who keep a few hens in their backyards to feed their families. Vietnam, Nigeria, Slovenia, Hong Kong, France and Switzerland are among the many countries now banning or restricting backyard poultry.

The emerging consensus is that poultry are now so dangerous that they can only be kept safely in giant sheds, isolated from wild birds and from the people who depend on them for food. But the science hints at a different solution.

Those pushing the wild birdsas-vector thesis often cite the mass outbreak of H5N1 among geese in Qinghai Lake, northern China in 2005. The lake is on an intersection of the migratory routes of many different bird species, so a theory quickly emerged of how the virus was then carried westwards by migratory birds to Kazakhstan, Russia and even Turkey.

It was an attractively simple explanation, and widely repeated – but the truth was more complex. Qinghai Lake is also at the centre of a thriving intensive poultry and fish-farming industry. The industry is highly integrated – so much so that chicken faeces from the farms are fed to the fish. The farms around Qinghai trade birds and eggs with others in Lanzhou, the source of infected poultry that also caused an outbreak of H5N1 in Tibet, 1,500 miles away.

Similarly, when avian flu broke out in a village in Turkey in 2005, the poultry industry was quick to blame migratory birds. But once media interest faded, it emerged that a nearby factory farm had been importing birds from the Far East and trucking old chickens to local markets, an equally likely source.

The global trade in poultry feed is another wild card. Despite the experience of BSE, chicken feed is still permitted to include poultry litter. This is a euphemism for farm waste such as bird faeces, feathers and even waste meat. Russian scientists have said such feeds were a prime suspect for an outbreak of H5N1 at a factory farm in Kurgan, where 450,000 birds were killed.

Flu viruses are spread in a complex mosaic of ways. Wild birds do harbour the virus and can spread it around, but international trade and factory farming play an important role. In Suffolk, one of the interesting revelations to follow Bradnock's intervention, was that Bernard Matthews has a subsidiary in Hungary, processing five million turkeys a year.

Hungary was also the site of an outbreak of avian flu in Europe last month, when 3,300 factory-farmed geese had to be slaughtered. What is more, the strain appears to be identical to the one in Suffolk.

"The question about Hungary is whether anyone has moved eggs, feathers or just vehicles from that plant to Suffolk," said John Oxford, professor of virology at Queen Mary's School of Medicine in London. "If they have, it would be very interesting."

For Matthews, with 60 turkeybreeding sites and nine processing plants in Britain, plus a fortune estimated at £302m, the impact of the outbreak will be fairly minor.

It will, however, be one more dent in his legacy. Will the man who turned the term "It's bootiful" into a popular catchphrase be remembered not just as the inventor of the Turkey Twizzler?

Jonathan Leake is the Sunday Times science and environment editor Brian Cathcart, page 24 Copyright of New Statesman is the property of New Statesman Ltd. and its content may not be copied or emailed to multiple sites or posted to a listserv without the copyright holder's express written permission. However, users may print, download, or email articles for individual use.