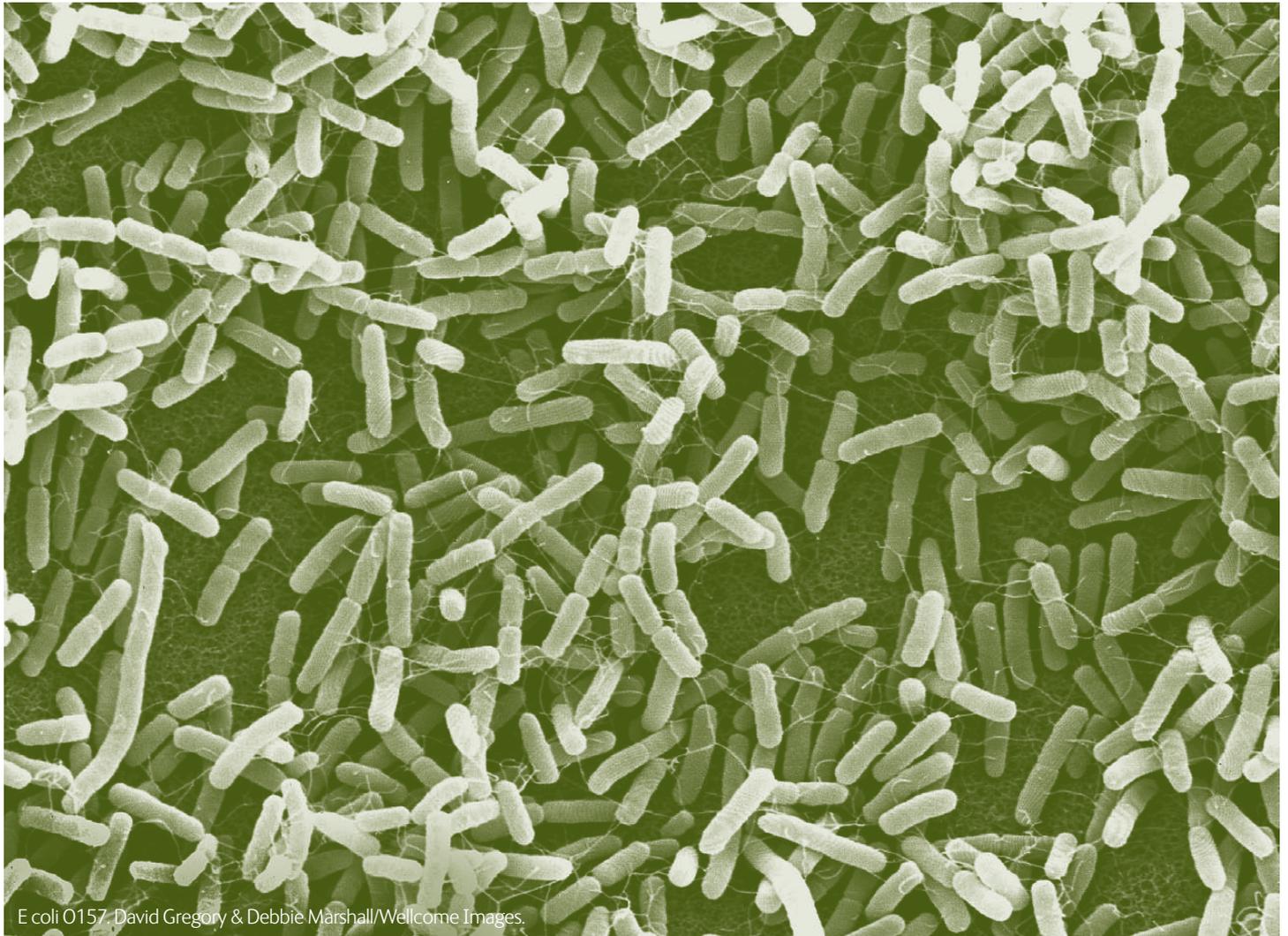


Policy-making for animal and plant diseases: a changing landscape?

The growing threat of animal and plant disease outbreaks in the UK makes this a critical time for reassessing disease management strategies. With new pressures to introduce responsibility and cost sharing measures, what is the best way to balance policy needs against the importance of a sustainable agriculture industry?



E coli O157. David Gregory & Debbie Marshall/Wellcome Images.

Policy and Practice Notes

The Rural Economy and Land Use Programme is a UK-wide research programme carrying out interdisciplinary research on the multiple challenges facing rural areas. It is funded by the Economic and Social Research Council, the Biotechnology and Biological Sciences Research Council and the Natural Environment Research Council, with additional funding from the Scottish Government and the Department for Environment, Food and Rural Affairs.

Animal and plant diseases pose a serious and increasing threat to the food security, food safety, economy, biodiversity and landscape of the UK. At the same time, the regulatory context for infectious disease is changing. Despite their obvious similarities, the fields of animal disease and plant disease do not make contact: policy is dealt with by separate government divisions, and researched in isolation too. But animal disease governance is changing and, perhaps, becoming more like plant disease.

Why should we worry?

The changing regulatory framework, along with new disease threats, make this an opportune time to look at lessons that can be learned from different sectors.

Drivers for change for infectious diseases of both plants and animals include:

- climate change, which creates warmer, wetter conditions in the UK, favourable to diseases and pests
- regulatory pressures e.g. the recent EU pesticides ban (EC91/414) and the introduction of responsibility and cost sharing for livestock diseases
- increasing trade as a result of globalisation that brings new biosecurity and surveillance challenges

Both plant and animal diseases pose threats to:

- food security, through production and quality losses, and consequent fluctuations in food prices
- the sustainability of affected agricultural sectors, creating economic uncertainties for the food supply chain
- food consumers (particularly health risks such as E.coli O157) and users of the countryside (who may be affected by degraded landscapes as a result of the tree and shrub diseases, e.g. *Phytophthora ramorum*, or risk contracting zoonotic diseases such as tick-borne infections)

What will the responsibility and cost sharing proposals mean?

As the cost to government and taxpayers of dealing with disease continues to rise, policy-makers are seeking ways to redistribute the costs of preventing and controlling outbreaks.

- In the livestock sector, responsibility sharing entails farmers taking a greater role in the prevention of disease spread, especially by adopting stricter biosecurity measures. Cost sharing may mean the introduction of insurance schemes so that farmers are financially protected against losses as a result of disease. Because the livestock sector has traditionally enjoyed financial support from government in the form of compensation for diseased animals, the proposed responsibility and cost sharing arrangements are a 'culture shock' to producers. The nature of disease spread (for example by airborne spread or vectors) and the unverified efficacy of many biosecurity measures mean that industry groups have been resistant to the responsibility and cost sharing agenda. Moreover, as compensation has traditionally been paid as a means of encouraging producers to notify suspected cases of disease, there are fears that disease detection will suffer if no routine inspections are carried out by government officials on farms.
- In the plant sector, these concerns are less significant because plant health inspectors make routine visits to check for disease, and compensation is not paid to affected producers. Tentative responsibility and cost sharing proposals for the horticulture and arable sectors have, instead, looked at introducing hardship funds for producers, to be paid for jointly with industry.

Why compare?

Separate governance arrangements exist for animal and plant diseases. Animal diseases have been historically classified as exotic or endemic, which is a politically framed and determined dichotomy.

- Endemic animal diseases are seen as intrinsic production costs, and are the responsibility of producers.
- In contrast, exotic diseases are controlled by government, with compensation for affected producers.
- All plant diseases, whether endemic in the UK or not, are dealt with by producers, who receive no compensation.

These splits have led to “silo working” in government whereby the three disease classifications (exotic animal diseases, endemic animal diseases, and plant diseases) are dealt with by different parts of the civil service who may not communicate effectively with one another. As these policy “silos” are allocated resources on the basis of historical preferences for controlling disease, the governance arrangements may no longer be equitable. Certain plant diseases are becoming a priority owing to the threat they pose to food security, while the risk of other exotic animal diseases is in decline. Yet co-ordinated policy-making, and a redistribution of resources to reflect disease risk, is hindered by the separation of departments and officials. The fundamental public good arguments for controlling all types of plant and animal diseases need to be reconsidered, and changes to the governance of disease made accordingly.

What can animal and plant disease regulators learn from each other?

There are also practical policy lessons that can be shared between sectors.

For example, since the 2001 Foot and Mouth Disease outbreak the importance of relationships between officials and stakeholders has been recognised and improved in the field of exotic disease. The plant health sector has developed excellent risk assessment and disease surveillance tools to prevent diseases entering the country and enable rapid responses to outbreaks. Comparative learning offers benefits to all parts of government involved in disease management.

Significant similarities exist between the animal and plant disease sectors:

- **Policy context:** To ensure a sustainable rural economy, disease policies must be integrated with other policy areas such as land use and environmental protection. However, there are still significant regulatory gaps (such as the lack of robust legislation on biosecurity) that prevent some policy areas being linked together.
- **Wider impact:** Policy-makers are becoming increasingly aware of the impacts of disease beyond agricultural production. Disease outbreaks have wider environmental effects, including threats to wildlife and biodiversity.
- **Industry responsibility:** There is political pressure to change responsibility and cost sharing arrangements, but a lack of insurance or diversification schemes to protect against the impacts of disease outbreaks means that many parts of industry are unprepared for such changes.
- **Consumer demand:** All sectors experience loss of consumer confidence during disease outbreaks, which frequently spill out of the particular sector or production system that is directly affected by disease.
- **International dimension:** EU and international trade agreements play a crucial role in determining disease control policy, and disease outbreaks result in the disruption of international trade.

There are important differences between the sectors as well:

- **Industry response to disease:** Plant diseases are almost exclusively dealt with and paid for by industry and consequently the industry has developed trade agreements and market structures to discourage bad practice. The livestock sector, on the other hand, suffers from “free loaders” as a consequence of the individualistic approach to disease control and government support for this sector.
- **Policy context:** Many factors govern animal disease policy including animal welfare, public acceptability of control measures, zoonotic risks and other societal impacts. These factors have little or no role in plant disease policy.
- **Disease preparedness:** The plant sector has developed routine testing and surveillance of crops, whereas surveillance for animal disease (particularly endemic disease) is patchy. However, the number of pests and pathogens potentially affecting plant health is far greater than the number that pose a risk to animal health.

What is the way forward?

The Relu ethos of interdisciplinarity challenges the idea that animal and plant diseases should be tackled in isolation.

Interdisciplinary research can test the boundaries that are taken for granted (for example between exotic and endemic, or plant and animal) by addressing key questions:

- Who should be involved in policy formation?
- Who bears the risks of disease, and how is this related to the distribution of responsibility and cost sharing?
- What do stakeholders want, and how will it be negotiated with those responsible for, or affected by, disease controls?

To answer these questions we need to consider:

- **Responsibility and cost sharing:** This is potentially the greatest challenge to the future of disease control, but many important questions must be answered before such a policy change can be implemented. In particular, it remains unclear what the best arrangements for responsibility and cost sharing are. Should subsidies be linked to animal and plant health, mirroring the cross-compliance measures in existing agri-environment and animal welfare schemes? If so, a better legal framework (particularly for biosecurity practices) is required to allow inspection and enforcement.
- **Biosecurity:** This in turn will require further research into the effectiveness of biosecurity practices and their take-up across different sectors of industry. There is a recognised need for the development of integrated and accessible codes of biosecurity practice for industry, regardless of its role in responsibility and cost sharing.
- **Stakeholder involvement:** The relationships between industry bodies and government are crucial to policy implementation, but can be strained by major policy change. Different working arrangements exist between the plant and animal sectors, and comparative research may help to identify the best ways of involving stakeholders in policy formation.

Further information

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Useful resources:

www.relu.ac.uk/research



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