

POLICY BRIEF

Developing a stakeholder engagement strategy for plant health knowledge production, exchange and implementation in Scotland

Rehema White¹, Henry Creissen², Althea Davies¹, Robbie Fitzpatrick¹, Mariella Marzano³, Elliot Meador², James Robinson³ ¹School of Geography and Sustainable Development, University of St Andrews, ²SRUC, ³Forest Research

Summary

- This policy brief aims to support Scottish Government, Plant Health Centre and other relevant organisations and institutions to develop and implement a **stakeholder engagement strategy** that supports knowledge production, exchange and implementation for enhanced plant health in Scotland and beyond.
- Plant health stakeholders are many and varied, including researchers, producers, managers and 'the public', within **Vectors, Governors, Managers, Monitors, Networkers** or **Plant enthusiasts** categories across agricultural, horticulture, forestry and the natural environment.
- Engagement will include ongoing **stakeholder analysis** of those with interests, responsibilities and roles in plant health, **information provisions** for the public(s), **consultation processes** for new practices and policy, **involvement strategies** to engage individuals and groups in effective plant health behaviours, **partnerships and collaborations** that strengthen the networks and community of those with an interest in or responsibility for plant health, enabling strong knowledge flows



Introduction: Why do we need a stakeholder engagement strategy for plant health in Scotland?

The risks of invasion, spread and impact of new pests and pathogens have escalated due to globalisation, international trade, climate change and changes in social practice. In order to understand these risks and be able to plan and put into place solutions, we need effective knowledge production, exchange and implementation. This means learning across all of those with an interest or responsibility in plant health. This policy brief draws on research undertaken for Scotland's Plant Health Centre (PHC) (literature review, interviews, surveys and Twitter analysis) to understand knowledge flows in relation to plant health.

Who are our stakeholders?

- A **stakeholder** is an individual, group or organisation with interest in and normally some influence [1]
- Stakeholders differ depending on their degrees of **interest, their roles and responsibilities** [2].
- **Stakeholder analysis** [1, 3, 4] offers methods for categories and interactions between stakeholders.
- We categorised stakeholders as **Vectors, Governors, Managers, Monitors** or **Networkers** [3] plus **Plant enthusiasts**
- 'The public' is a heterogeneous and poorly defined coalition of people and groups [5]
- **Scale** is important; across local, regional, national and global biophysical and political areas.

Categories of stakeholder (adapted from Dandy et al 2017)

Vectors: individuals or groups who (usually unintentionally) spread pests on plant material including traders in plants, woodfuel, timber etc or on equipment (e.g. foresters or outdoor recreationists).

Governors: individuals and organisations who set formal and informal rules and regulations affecting tree-health e.g. trade agreements, legislation.

Managers: individuals or groups with specific technical skills and responsibilities for plant health e.g. border inspectors, foresters, sometimes local authorities.

Monitors: those who produce and hold knowledge required to predict, detect, identify, or understand pests and disease outbreaks. Such knowledge may be scientific, practitioner or local.

Networkers disseminate knowledge amongst stakeholders in tree health. They can overlap or be part of another group e.g. government agencies.

Plant enthusiasts: those with a wider interest in plant health and management e.g. conservationists gardeners, urban residents: often 'the public'.

"the older ones want to see you and speak to you over a cup of tea in the kitchen, the younger ones are quite happy with a WhatsApp"

"Relatively low-level biosecurity becomes a cultural change"

"...it's a very small percentage of arable farmers that really know the pests and diseases ... [most] are not really that interested. They want someone to come along, look at the crop, write them a script or tell them the chemical straight away ..."

Current knowledge exchange patterns

- Merely providing information does not always lead to pro-plant health changes. We should also support knowledge exchange. Knowledge is justified true belief – information that is interpreted, accepted and often exchanged through social relationships. Effects of knowledge exchange require changes in behaviour or in societal structures and processes.
- In agriculture (and horticulture), prediction and prevention of pests are common, and chemicals are widely used, more than in tree health (including forestry and many natural environment concerns).
- The agronomist is a key knowledge broker for arable farmers.
- Social media is important for some organisations, but is less used /trusted by individuals; face to face interaction is preferred by key stakeholders in plant health.
- Twitter is used by a minority, including some key stakeholders in agriculture and research, but the discussion does not permeate out widely. It has potential to engage some stakeholders and younger audiences.
- Government departments and key institutions are important sources of knowledge in the horticultural sector.
- Academic research is rarely directly accessed, but is trusted. Translation could be useful.
- At a potato event, farmers, agronomists and others were asked where they accessed plant health knowledge, which sources they trusted (Figure 2) and how we might enhance knowledge flows. This case study suggests that experiential and interactive methods, together with long-term frameworks and short-term interventions, can facilitate effective engagement with Plant Health in Scotland.

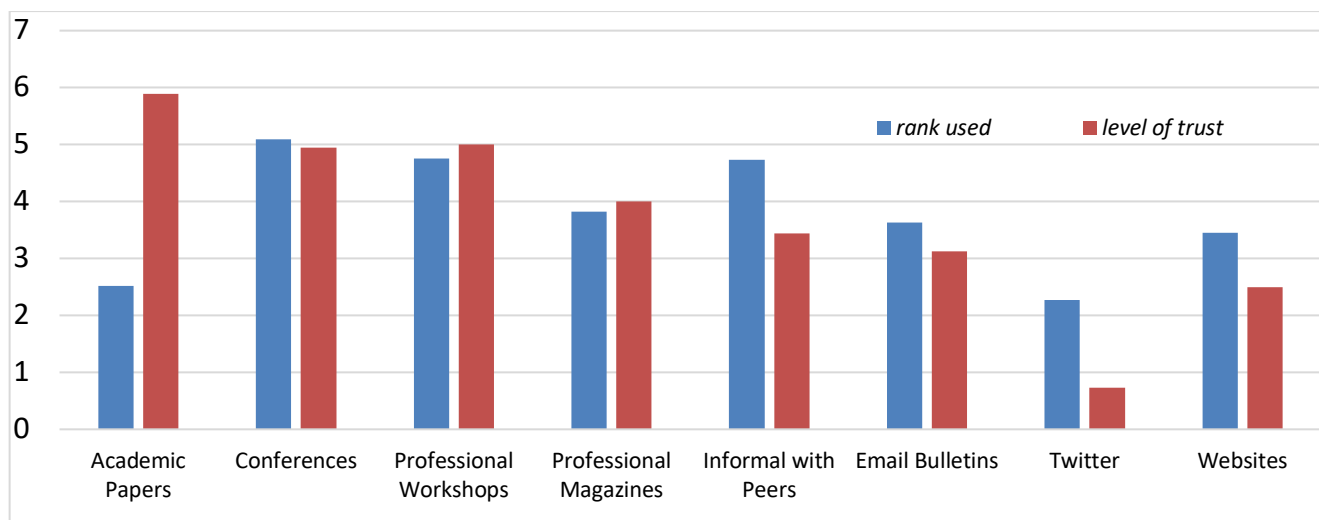


Figure 2: Ranking by how often a knowledge source was said to be used (where 1 indicated rarely and 6 often) and of level of trust in knowledge sources (where 1 was low trust and 6 high levels of trust).

How could stakeholders be engaged?

'Stakeholder engagement' is the active solicitation of participation by those coordinating policy, practice, or research in a particular field (White et al 2018). The form of participation may vary from information delivery to an empowering form of devolution of power (see White et al 2018). Hence, engagement is about more than knowledge exchange: it is also about developing and strengthening collaborations and partnerships for knowledge co-production, exchange and implementation in the future.

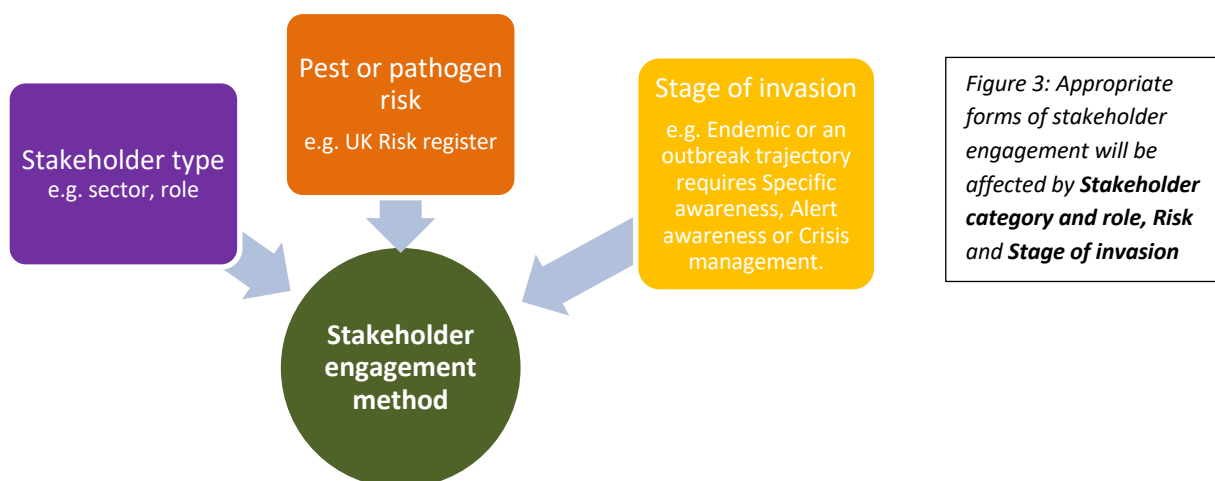


Figure 3: Appropriate forms of stakeholder engagement will be affected by **Stakeholder category and role**, **Risk** and **Stage of invasion**

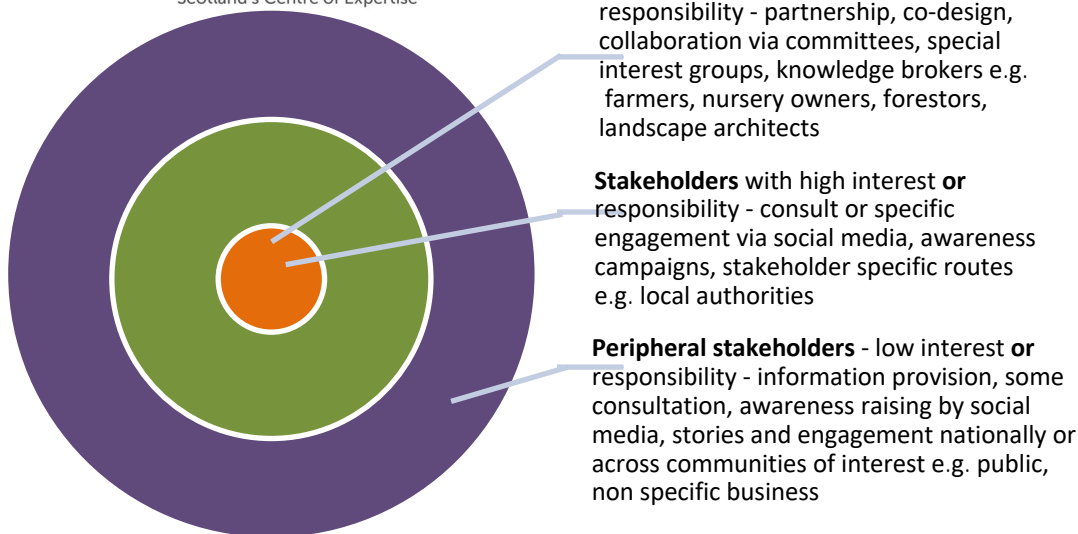


Figure 4: In a stable situation and for general plant health, a strategy will be developed that tackles key, normal and peripheral stakeholders according to their roles, sector specificity and the stage and type of invasion likely as described in Figures 2 and 3.

Stakeholder engagement approaches

Approach	Context
Awareness raising	Explanation, consistent communication and support across sectors of the public to take achievable actions e.g. bicycle washing, boot cleaning, purchase of plants of validated origin
Information availability	Accurate and detailed plant health facts, well signposted, on an online portal
Appropriate knowledge networks	Pest and disease outbreak response requires fast-paced cooperation across multiple disciplines – therefore networks should be established in “peace time”
Institutional and organisational planned communication	Exchanges with the national forest estate can be efficiently targeted through a single employee acting as a conduit. The private forestry sector can be reached through organisations such as Confor, the ICT and RFS. Individual forest landowners are harder to reach
Existing publications	Regular publishing in gardening, forestry and arable magazines
Collaboration with associations and NGOs	Communication with public audiences can be channelled through eg Royal Horticultural Society, community groups, conservation NGOs
Specialist agronomist and forestry advisors	Arable farmers often rely strongly on their agronomist advisors for crop health information. Engage with but do not rely on commercial advisors
Conferences, workshops and events	For researchers, practitioners. Encourage emergence of knowledge brokers and research translators e.g. knowledge and policy briefs
Committees and collaborative strategies	E.g. across sectors, with animal health

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