

Workshop Report

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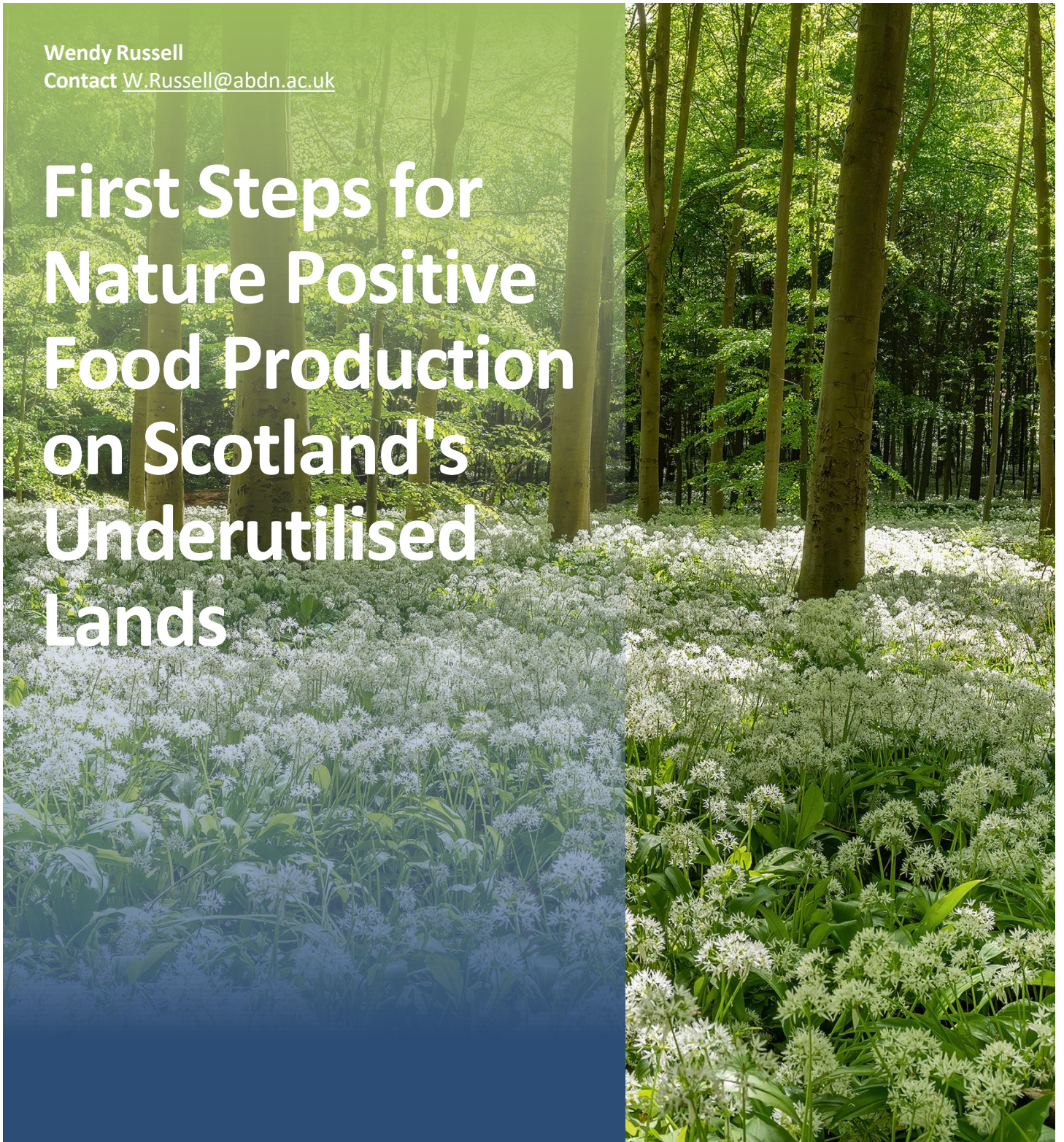
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First Steps for Nature Positive Food Production on Scotland's Underutilised Lands



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Research Question: Can Scotland's underutilised lands contribute towards a sustainable food system and provide economic motivation to protect our natural capital?

This topic was addressed in a stakeholder workshop to identify benefits, barriers, opportunities and concerns, as well as the first steps for delivery.

Scotland's future landscape will look very different having to accommodate increased urban spread as well as larger areas of afforestation and peatland restoration.¹ There is also an immediate necessity to produce our food in the most efficient and environmentally friendly way possible, but also to be mindful that we restore and enhance important habitats for our precious and unique biota. Mainstream agriculture will have to quickly adapt to contribute to meeting Scotland's climate, biodiversity and heath targets, but we must also identify opportunities for nature-based food solutions as they could be pivotal in mitigating and adapting to climate change whilst restoring nature.



Recommendations:

- use of underutilised lands should be considered as a nature positive food production solution
- make identifying and aligning with similar Scottish and international initiatives a priority
- take into account location, soil type, processing facilities, community need and protecting natural vistas, flora and fauna when it comes to production methods
- gather more data on the life cycle analysis and nutrient density of products produced on underutilised lands
- consider pollution and soil contamination in urban areas
- engage further with stakeholders, particularly at a regional level
- establish a dedicated site to collate and share information

Wild edibles can be cultivated across much of Scotland. They thrive in poorer soils, are more climate resilient than many of our modern crops and have lower water, nutrient and pesticide requirements. They are also rich in phytochemicals, compounds considered to contribute towards preventing metabolic disorders such as cardiovascular disease and type 2 diabetes mellitus, as well as some cancers.

Questions Addressed

Should we consider using some of our underutilised lands for food production? What are the benefits, barriers, opportunities and concerns?

It was appreciated that there is strong competition for land use in Scotland but also that the food production system is dysfunctional in terms of meeting our major health, emissions and biodiversity targets and needs to be radically overhauled. There is a conception that farming systems that are less destructive to nature are considered less productive compared to monoculture crop production but could deliver more in terms of products which are of higher nutritional value and new market and regional food production opportunities, as well as appealing to particular groups of consumers and businesses keen to reduce the carbon profile of their products. The use of positive language is important and terms such as 'marginal' and 'remote' may be construed as negative. The term 'underutilised' suggests value and potential and could be more acceptable for future discussion and engagement.

Within forest systems, additional non-timber forest products, especially food and drink, could bring value and incentive to reforestation initiatives and planning production at inception would likely be desirable. The issue around protection from deer is an important consideration but venison and other deer-based products were also considered high-value products and consumption, as well as control measures, encouraged. There are many reports on how to effectively manage deer but fencing and population reduction should be possible, with effective wild boar control in Sweden being mentioned as a model for good practice. The potential for farming at different scales from natural planting (encouraging foraging and education) through to production at scale would be dependent on many factors including location, soil quality and product desirability. It was noted that in terms of soil quality, Scotland is ahead of many nations in having a valuable soil map to support planning. As with all food production systems making it affordable, available and accessible to all should be a priority. Foraging provides important connections to nature but is only accessible to a small number of individuals and natural planting initiatives could make this more accessible by providing educational tours, reinforcing a much-needed connection to food. The foraging survey (2021)² highlighted that fungi were the most desirable commodity but due to fear of misidentification were not commonly foraged. This suggests both market and education potential. The 2021 survey also highlighted products that were most commonly foraged, again suggesting the most likely acceptable products but further engagement with business and individuals is needed, particularly across regions. It was noted that some wild products are available through major retailers (e.g. wild garlic at Waitrose) but these are high value products and not widely available to all. There may be scope to discuss with some of the smaller supermarkets that have more flexibility to supply local as to the potential to integrate these products into their stock.

The Good Food Nation and Agriculture Bill should strongly support the provision of nature-based food solutions but the direct incentives at this stage are unclear and more research is needed to provide data on the LCA and nutrient density, as well as direct benefits to nature such as markers of biodiversity. Many of the policies around foraging and novel food accreditation are also unclear and some clear guidance would be valuable. Having a dedicated site for this, along with other practical and scientific information was considered to be important for successful implementation of novel growing and production systems.

How should the use of our underutilised lands for food production look?

The potential of both native and non-native wild edibles as well as natural planting and full-on agroforestry was considered. Invasive traits were recognised as valuable in a food production system, providing they are subject to the necessary controls. With these in place the use of non-native species that grow well in Scotland are less of a concern. Systems with environmentally detrimental removal methods should be considered for revalorisation and where possible, employing different methods of control. Production methods should be in line with location, soil type, processing facilities, community need and protecting natural vistas, flora and fauna. Regional engagement was considered to be key to identifying many of these important aspects. Engaging with small-scale communities, particularly community gardens, may provide some proof-of-concept models and living labs. Ongoing projects, particularly in the island communities, should be explored. Allotmenters and urban production systems could also be amenable but with growing concerns around pollution and soil contamination more research is needed to provide confidence in these systems for both mainstream crop production, as well as wild and potentially novel and more resilient crops.



What are the first steps towards shaping/driving this initiative?

More engagement is required particularly on a regional level. Geographically distinct areas and communities should be identified and a knowledge exchange activity undertaken to explore potential. Identifying and aligning with similar Scottish-based initiatives should be a priority. These will include both active projects and proposed plans, which will help to develop an overarching strategy to be shared with stakeholders and policy teams. Where identified best practice should be documented and disseminated. This may include initiatives from outside Scotland. Establishment of a dedicated site to collate and share information is required.

Notes:

1. Scotland's Third Land Use Strategy 2021-2026
 2. Unpublished data from the Scottish Foraging Survey available from the University of Aberdeen Rowett Institute
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