

## Improving the success of agri-environment initiatives

A Rural Economy and Land Use project investigating whether agri-environmental schemes could be made more effective and whether training for farmers would help to achieve such improvements.



Photo by Claire Carvell

### Policy and Practice Notes

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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.

Since 1987 voluntary schemes have existed in the UK to encourage farmers to look after the natural environment and to compensate them for economic losses arising from this wildlife-friendly farming. Such schemes aim to reduce the impact of intensive agriculture on the environment – for example by reducing fertiliser and pesticide use and promoting suitable habitats and food resources for wildlife. However, research has suggested that these agri-environment initiatives have produced variable outcomes and there is considerable scope for improvement.

## What are the possible causes of the problem?

**There are several possible reasons for schemes not producing the desired outcomes:**

- The management guidelines given to farmers may be ineffective, perhaps because they were developed under controlled experimental conditions and will not work in the field.
- Farmers may lack sufficient knowledge or understanding to apply the guidelines effectively.
- Landscapes may have such diminished biodiversity that the target species may not be present to make use of agri-environment habitats.

## Could such schemes be improved to produce the desired results?

**The researchers looked at two options for creating wildlife habitat on farmland that are currently available under the Entry Level Stewardship Scheme – the basic agri-environmental programme in the UK:**

- The first aims to provide winter food for farmland birds by sowing high energy seed crops.
- The second provides pollen- and nectar-rich flowering plants for bumblebees and butterflies.

The research took place on 48 farms:

- Surveys at the start of the project showed that the most important factors determining quality of the wildlife habitats were:
  - Soil type, with lighter soils yielding more flowers and seeds.
  - Experience of the farmer in agri-environmental schemes.
  - Location of the habitat; in particular a sheltered site attracted more birds and insects.
- 24 of the farmers undertook a one-day bespoke training course with a follow-up half-day farm visit, while the remaining 24 received no training.
- The results were monitored over five years.
- The researchers measured whether the wildlife habitats created by the trained and untrained farmers attracted target species of birds and insects and what factors affected the quality of these habitats.
- Overall they found that, given the right conditions, these schemes have the potential to provide good resources for bumblebees, butterflies and birds.

## What is the current position of farmers as stewards of the countryside?

**Farmers have had to deal with enormous changes in both public and government expectations about their role:**

- After World War II agricultural policy focused on increasing food production. Then in the late 1980s, following growing recognition of the negative environmental impacts of agricultural intensification, there was a shift towards paying farmers in their role as stewards of the countryside. Most recently there is an expectation that farmers will be providing a range of services from the land, which may include food, wildlife, water, leisure facilities, flood management and carbon storage.
- Farmers have, increasingly, to comply with a culture of complex rules and regulations.
- The public's expectations of farming have changed. Whereas in the past they were seen primarily as food producers, they are now expected to be custodians of the countryside.

## What problems and opportunities do environmental stewardship schemes present for farmers?

**The research has shown that implementing agri-environmental schemes at the farm level poses complex problems that are not only technical, but also bound up with farmers' attitudes to the schemes themselves and to the environment:**

- Farmers may not feel a real engagement with the objectives of the scheme.
- They may have limited understanding of how the instructions they are given relate to the expected outcomes.
- Because of this they may cut corners or unintentionally breach the terms of the agreement.
- Financial incentives alone may not be the best basis for schemes of this kind as they may encourage farmers to take part for the wrong reasons.
- Farmers who are experienced in agri-environmental schemes have greater success in putting them into effect, but may also be alert to weaknesses in schemes, eg supplies of seed provided for birds running out at key times of the year.

## Could this situation be improved through training?

**The research has shown that training programmes help to improve outcomes of agri-environment schemes by:**

- Changing attitudes of participating farmers so that rather than focusing on payments they are more engaged in the conservation objectives.
- Ensuring a greater understanding of the reasons underlying the actions they are asked to undertake, as well as how to achieve them.
- Ensuring farmers have all the information and skills they need to make interventions effective.

## What can training achieve at farm level?

**The researchers found a willingness among farmers taking part in the research to undertake training and almost all said they enjoyed it and found it useful:**

- Farmers welcome advice on questions such as selection of appropriate seed mixes for their individual circumstances.
- The impact of training can be seen not only in technical aspects but also in attitudes and a sense that farmers can do a better job on environmental management. Over the five years, farmers who had been trained created better quality wildlife habitat in terms of flower resources for bees and seeds for birds. This translated into local increases in target species of birds and bees.
- Shelter and soil types are factors requiring careful consideration when deciding on location of flower margins and training could help farmers make these decisions.
- Some important factors are, however, beyond the farmer's control, eg weather, existing abundance of target species in the landscape and, in some cases, soil type.

## What are the implications for policy?

### Policy-makers should take a range of factors into consideration:

- The research has demonstrated the value of farmer training on the delivery of environmental outcomes from agri-environmental schemes. This was mentioned in the Defra Review of Progress of Environmental Stewardship.
  - Farmers need to be more involved in developing agri-environmental policies and could contribute their expertise to the design of specific interventions.
  - Past experience of agri-environment schemes is important to their successful implementation by farmers and the knowledge gained by farmers implementing them on the farm could be fed back into policy and practice development.
  - Training for farmers can help by instilling a more positive and professional attitude towards agri-environment schemes, as well as by helping them to become more skilled at putting interventions into effect.
- It is important that training is focused on practical issues and is delivered by professionals with farming experience who can gain the respect of farmers.
  - There is a need to move away from “self service” schemes where farmers are simply left to get on with implementation, but it is also important to retain the role of the farmer in deciding management options.
  - A one-day training course with follow-up advice, offered to farmers taking up new agri-environment options could help to ensure better environmental outcomes.
  - Further research is required in order to explore possible options for delivering a training programme. Such options include:
    - Making participation compulsory for acceptance into the scheme.
    - Allowing training to be included in the calculation of the points required to meet minimum stewardship thresholds. This would have the benefit that farmers would be voluntarily participating in training that this research has demonstrated to be enjoyable and beneficial.

## Further information

The research was carried out at the NERC Centre for Ecology and Hydrology and the universities of Exeter and Reading.

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**Project website:** [www.ceh.ac.uk/farmcat/index.html](http://www.ceh.ac.uk/farmcat/index.html)

### Useful resources:

Defra website: [www.defra.gov.uk/food-farm/land-manage/stewardship](http://www.defra.gov.uk/food-farm/land-manage/stewardship)

Natural England website:

[www.naturalengland.org.uk/ourwork/farming/funding/es/default.aspx](http://www.naturalengland.org.uk/ourwork/farming/funding/es/default.aspx)

