



How does organic farming benefit wildlife?

This information sheet explains how and why organic farming benefits wildlife

Why is wildlife important?

Every species of plant and animal, and the ecosystems of which they are a part, has a unique place in the earth's irreplaceable 'life support system'. Working and interacting together in the delicately balanced systems of the natural environment, they maintain the balance of oxygen, water and nutrients and provide food for all life on the planet.

Why is farming important for wildlife?

Farming is important for wildlife because farmland covers 73% of the UK land area.¹ Historically, intensive farming has had a very negative impact on wildlife and their habitats. In recent years there has been increasing evidence that organic farming is part of the solution to the negative impacts that have occurred in the countryside.

What is organic farming?

Organic agriculture is a safe, sustainable farming system, producing healthy crops and livestock without damage to the environment. It avoids the use of artificial chemical fertilisers and pesticides on the land, relying instead on developing a healthy, fertile soil and growing a mixture of crops. In this way, the farm remains naturally balanced. For example a wide variety of beneficial insects and other wildlife act as natural predators for crop pests. Animals are reared without the routine use of drugs, antibiotics and wormers which form the foundation of most conventional livestock farming. Four per cent of the UK land area is farmed organically.²

How do conventional farming methods affect wildlife?

- The use of chemicals such as antibiotics, artificial fertilisers and pesticides has had a dramatic effect on the food chain. Since the introduction of pesticides we have witnessed farmland birds decline dramatically.³ This is because their food sources are no longer readily available and their habitats have disappeared on a huge scale. Since the introduction of the Common Agricultural Policy in 1962 over 192,000 kilometres of hedgerows have been ripped out⁴ and 45% of our ancient woodland has been lost.⁵
- The Government encouraged farmers to specialise and so farmers moved away from mixed farming. This meant that the amount of food available for wildlife was reduced as were diverse nesting sites.
- Conventional farmers tend to sow their crops in the autumn rather than in the spring. This means that over winter, there is very little for wildlife to eat. If the field wasn't sown until spring, weeds and other plants could grow and so providing more food sources for wildlife.

The dramatic decline in our wildlife has been well documented - for further information please see the links listed at the end of the information sheet.

How do organic farming methods affect wildlife ?

Organic farming actually depends on encouraging a diverse ecosystem to maintain soil fertility and to keep pests under control naturally.

Important organic farming practices include:

- Encouraging natural predators by maintaining hedgerows and creating open spaces at side of fields. For example organic farmers do not cut hedges between March and October when birds are nesting. They are also restricted to cutting them once every 2 years to provide undisturbed habitat for species such as doormice. Organic farmers are not allowed to plough up traditional meadows rich in wildlife.
- Rotating crops - changing the crops planted each seasons keeps the soil fertile and avoids the need for chemicals. By not using herbicides, organic farmers leave weeds which provide a valuable food source for wildlife.
- Mixed farming - rearing both animals and crops on the farm means that grassland and cereal crops can be found on the farm. This is important for wildlife - birds such as lapwings nest on spring-sown crops, and raise their chicks on pasture
- Antibiotics are not routinely given to animals. Worming treatments, for example, have a knock on effect on the type of dung that the animal produces. Dung beetles which are important in maintaining bird populations and for the enrichment of the soil are adversely affected by the residues in the dung.

Is there any evidence to show the benefits of organic farming on wildlife ?

Yes a number of studies show this. A report written by English Nature and the RSPB in 2005 concluded that organic farming increases biodiversity at every level of the food chain- all the way from lowly bacteria to mammals. ⁶ It is the largest review ever done of studies from around the world comparing organic and conventional agriculture.

Other studies show that plant and animal groups which are known to have significantly declined in recent years, can be found in larger numbers on organic farms:

Plants: many once common arable flowering plants are now rare or dramatically declining, and include some of Britain's most seriously endangered plants. A Danish study found five times as many wild plants and over 50% more species on the organic fields. A UK study found twice as many threatened wild arable species.

Invertebrates: the number of insect and spider species associated with farmland has more than halved since the 1950s. A Danish study found that organic fields had about 60% more of those arthropods that comprise bird food. A UK study found up to five times as many spiders and up to twice as many spider species.

Butterflies: almost half of the 44 species of butterfly breeding in lowland grassland are in decline. A UK study found that organic farms support twice as many butterflies as non organic farms.

Farmland birds: these have declined by an average of 30% since 1970; skylarks have declined by 60%. A BTO study of 22 organic and 22 conventional farms found 40% more birds on the organic farms; another study found over twice as many skylarks. ⁷

Conclusions:

If you alter or suppress one element of wildlife - even an undesirable pest - you affect the natural balance of the land. Over-reliance on chemicals has seen wildlife levels in the UK decline dramatically. Studies have shown that organic farming can help reverse this decline. This can be achieved without preventing farmers from producing enough food for everyone. This is because organic farmers use fewer pesticides, no artificial fertilisers, adopting wildlife-friendly management of habitats and mixing arable and livestock farming. Organic farming is finally establishing itself a

well earned reputation as an environmental protectorate.

How can I support the work of the Soil Association ?

The Soil Association is a membership charity, we urgently need your support to continue our work. As public support for the Soil Association continues to grow, our ability to influence the thinking and policies of government and big business grows with it. In this way we help to develop a truly healthy and sustainable future. Join us today and help us to continue campaigning for sustainable agriculture and organic food. You can join the Soil Association on our website, over the phone or by writing to us.

1 - <http://www.defra.gov.uk/environment/statistics/land/kf/ldkf08.htm>

2 - Soil Association Food and Farming Report 2004

3 - Anderson, G.Q.A., Bradbury, R.B. and Evans, A.D. (2001), Evidence for the effects of agricultural intensification on wild bird populations in the UK. RSPB Research Report No. 3. Sandy, UK, Royal Society for the Protection of Birds.

4 - <http://www.btcv.org>

5 - Spencer, J. and Kirby, K. (1992) An inventory of ancient woodland for England and Wales. *Biological Conservation* 62, 77-93

6 - *Biological Conservation* Volume 122, Issue 1 , March 2005, Pages 113-130

7 -The Biodiversity Benefits of Organic Farming, 2000, Soil Association.

Further Reading

links

<http://www.ecologyandsociety.org/>

<http://www.biodiv.org/>

<http://www.wwf-uk.org>

<http://www.cpre.org.uk/>

<http://www.greenpeace.org/>

Jules Pretty, *The Living Land* 1998

30 Graham Harvey, *The Killing of the Countryside* 1997

Krebs, J.R., Wilson, J.D., Bradbury, R.B., Siriwardena, G.M. (1999), "The second silent spring?" *Nature* 400: 611-612.;

Anderson, G.Q.A., Bradbury, R.B. and Evans, A.D. (2001), Evidence for the effects of agricultural intensification on wild bird populations in the UK. RSPB Research Report No. 3. Sandy, UK, Royal Society for the Protection of Birds. ;

Donald, P.F., Green, R.E. and Heath, M.F. (2001c), "Agricultural intensification and the collapse of Europe's farmland bird populations." *Proceedings of the Royal Society of London, Series B-Biological Sciences* 268: 25-29.

Please see the Soil Association website library, <http://www.soilassociation.org/library>, for more information

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