



*Conservation headlands may be drilled more widely to enable game bird chicks to move freely through them. © Peter Thompson/GWCT*

## **Foraging habitat: for food**

Foraging areas should provide a good food supply, either for adult birds or chicks, with sufficient cover for the foraging birds to be safe. Adult and young gamebirds have different dietary needs, with adults eating mainly seeds and plants, and chicks eating mostly insects and other invertebrates.

This dietary difference is particularly pronounced for grey partridge<sup>78</sup>. It is important to make sure there is plenty of suitable foraging area to provide chick-food insects in spring, and sufficient seeds and grains for adults year-round.

### **What sort of foraging cover?**

Increasing the food supply for both adult birds in the winter, and chicks in the spring and summer, can be done by providing the right sort of foraging cover. Hens need brood-rearing cover that is rich in chick-food insects to lead their chicks to in the first days and weeks of their lives. Adults need areas that provide a sufficient supply of grains and seeds throughout the winter. These can be provided by conservation headlands and game cover crops.

## **How is this provided?**

There are different techniques to provide these areas, mainly consisting of conservation headlands and game cover crops.

### *Conservation headlands*

In an arable landscape, chick-food insects live mainly on weeds within crops. In a modern farm, killing these weeds with chemical treatments, or killing the insects themselves with insecticides, disrupts the chick's food supply. A grey partridge chick eat up to 2,000 insects per day, and can starve if insects are not sufficiently abundant. This was highlighted by a study that found chick survival was a third lower in areas of extensive insecticide use than on areas with little or no insecticide use<sup>57</sup>.

A conservation headland is established by treating the area around the edge of an arable field with fewer, selective herbicides and insecticides than the rest of the crop. It may also be drilled more widely, to increase the space between rows and use less fertiliser. This allows game chicks to move more easily through it and makes space for more wildflowers and arable weeds in the outer strip of the field, which supports many more wildlife groups.

Establishing conservation headlands around fields increases the supply of chick-food insects. More than twice as many have been found in conservation headlands compared to headlands sprayed as normal<sup>52</sup>. This plentiful food supply can improve chick survival, and support larger brood sizes<sup>52,63,79</sup>. For example, a study of grey partridge chick survival on farms in East Anglia showed that survival rose from 23% on fully sprayed fields, to 39% in areas with conservation headlands, making the difference between population growth and decline<sup>54,80</sup>.

### *Game cover crops*

Food for adult birds can be provided by game cover crops. Choosing crops that retain their seeds and grains through the winter, and using a mix of different species can provide food at different times, providing a steady food source over the winter months.

The type of crop planted in game cover strips varies widely, and can range from those such as maize, which has limited conservation benefits, to specifically formulated wild bird mixes, which are designed to benefit a wide range of birds and are sometimes tailored to support

particular species. The type of crop is influenced by what the keeper wants that strip to provide – foraging cover or winter cover.

Game cover crops are often treated with little or no insecticides, and therefore can also provide areas where insects are abundant, contributing to the overall effort to provide sufficient chick-food insects. Where nesting cover is provided, game cover crops are usually planted next to this, for example alongside a beetle bank or hedgerow, so that the hen can take her brood there to forage when they leave the nest. Game cover crops providing food and shelter for adult birds are usually sited along the edge of fields, next to woodland or hedges to give easy access to the resources they provide, and allow the birds to move around the countryside in safety.

### **Can birds of prey benefit from game management?**

Birds of prey may threaten the viability of gamebird management because of predation. At the same time, it has been suggested that a wide range of raptor species can benefit from game management due in part to the abundance of prey including small mammals and wild farmland birds on shoots. In his 2012 book, *Partridges. Countryside barometer*.<sup>39</sup>, the late Dr Dick Potts writes:

*“In the recent past, nothing has divided bird protection and shooting lobbies more than their differing attitudes to raptors. Yet, in the future, raptors could be the glue that binds the two lobbies together. Raptors need food and with modern agriculture there is less and less food for wildlife every year, except where gamebirds thrive.”*

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