



The management of damage by Brent Geese

This note gives guidance to farmers on ways of alleviating damage to winter crops by Brent geese. The advice has been prepared by the Central Science Laboratory (CSL) and is based on research undertaken by CSL and the University of East Anglia.

The Brent Goose population

1. The number of Brent Geese that winter along the South and East coasts of England has increased markedly over the last 30 years, though in the 1990s populations have stabilised. As the population size has risen, the birds have become more dependent on agricultural land so that more farmers are finding that crops grown in coastal areas are being grazed. At present, there is little evidence that birds are moving further inland.

Damage and its timing

2. When the geese first arrive from their breeding grounds in Siberia in the autumn, and before their departure in the spring, they feed mainly on the foreshore on mud flats or salt marshes. During the winter, however, they move inland to feed on coastal fields, grazing pasture, winter cereals and oilseed rape.
3. There is regional variation in the attractiveness of winter cereals to the geese and in the timing of damage, although geese will generally graze winter crops as soon as they have sufficient growth in early winter. Yield losses averaging 7% for cereals and 11% for oilseed rape have been measured.

Scaring

4. Scaring, by whatever means, should be concentrated during the period when the geese are particularly attracted to crops. If scaring is undertaken outside this period, this simply gives the birds greater opportunity to become accustomed to the scarers, which then lose their effectiveness.
5. Farmers must, however, keep a close eye on the birds' activities in order to take account of regional and annual variation in the timing of damage.

6. By far the best scaring technique is human presence and regular patrols of fields to scare the geese from crops has been found to be cost-effective. Under licence from DEFRA, a limited number of Brent geese can be shot to reinforce scaring. For further advice on shooting as an aid to scaring, see the DEFRA/NFU advisory note "Code of Practice on the Licensed Shooting of Brent Geese". (Copies are available at the above address.)
7. Other scarers, especially conspicuous tape stretched over fields, can be effective but usually only for a few days. To maintain effective scaring, therefore, it is necessary to change the position and type of scarers every few days. There is no short cut to effective scaring - it is labour intensive.

Alternative feeding areas

8. Scaring Brent geese from crops will be easier if other feeding areas are available nearby. The concept of "alternative feeding areas" aims to provide such feeding sites as alternatives to crops that the birds might otherwise damage.

What crops can be used in alternative feeding areas?

9. Any plant that is attractive to Brent geese can be used in alternative feeding areas. The crop most frequently considered is grass. Some farmers, however, have sown fields of barley or oilseed rape as sacrificial crops to attract the geese away from other crops that the farmers want to harvest. CSL research has shown that white clover is extremely attractive to Brent geese and this should certainly be considered for cultivation in alternative feeding areas. Set-aside land can also be used as long as the vegetation is attractive to Brent geese and is appropriately managed.

How should fields be managed as alternative feeding areas? _____

10. It is important that the crops in fields that are to be used as alternative feeding areas are managed so that they are as attractive as possible to the geese. Brent geese like crops that are rich in protein, usually rich in carbohydrate and easily digestible, which means low in fibre. Such conditions are often met in crops with much young growth. Thus recently germinated winter cereal or oilseed rape, grass, in which the sward has been kept short by grazing or cutting, and clover fulfil many of the birds' needs. The attractiveness of grass has been found to be enhanced by the application of fertiliser (50kg N/ha). Brent geese may be able to identify suitable crops from the air by their greenness.
11. There may be regional differences in the birds' preferences for some field characteristics. For example, in Norfolk, Brent geese prefer grass fields that have short, even swards, while in Sussex they prefer grass that is uneven and tussocky. There may be other regional differences in preference but these have not been identified.

Where should crop fields and alternative feeding areas be sited? _____

12. Brent geese prefer to feed in fields close to the sea. They prefer large fields without tall hedges or trees and with little disturbance (e.g. footpaths and roads). Ideally, therefore, potentially vulnerable crops should be grown in smaller fields that are some distance from the sea, are surrounded by tall hedges and suffer human disturbance from footpaths or roads. Conversely, alternative feeding areas should be created in open fields close to the sea, preferably remote from busy footpaths and other forms of public access.

Integration of measures to alleviate Brent Goose damage _____

13. Several ways of reducing the risk or extent of Brent goose damage are suggested above. The most effective result is likely to be achieved by using most or all of the methods together.

The results of recent research suggest that farmers should, as far as possible:

- plant winter cereals and oilseed rape in fields as far from the sea as possible;
- plant winter cereals and oilseed rape in fields with tall hedges and close to roads or footpaths;
- leave fields close to the sea as grass or plant sacrificial crops, and manage as alternative feeding areas for the geese;
- ensure that grass fields have a short sward, achieved by cutting or grazing, by October in time for the birds' arrival;
- apply autumn fertiliser to grass fields designated as alternative feeding areas;
- maximise the benefit of set-aside fields by managing them as alternative feeding areas;
- ensure as much disturbance as possible on crop fields, including frequent changes to scarers, presence of people and licensed shooting;
- increase scaring effort on crop fields that are large, open, close to the sea and do not experience other forms of disturbance;
- minimise disturbance on and around fields designated as alternative feeding areas; and
- keep a constant watch on the birds' behaviour - do not use scaring devices when crops are not under threat, but be prepared to increase scaring effort when it is found to be necessary.