



Seeded ryegrass feeds farmland birds throughout winter

A recent study has found one means of complementing agricultural production with biodiversity protection by growing seeded ryegrass for silage. The seeds effectively feed many birds, such as the yellowhammer and reed bunting, throughout the winter, and the grass can still be cost-effectively used for silage if it is harvested at the right time.

Changes in agricultural practices have resulted in extensive areas of the landscape being covered with grassland in many parts of Europe, especially the north-western region. Ryegrass is usually grown, but it is managed to avoid seed production. Intensive management of grassland has caused a shortage of food in the winter for seed-eating birds, for example, by reducing the amount of cereal stubble available for wintering birds to forage on.

This study investigated the impact on wild farmland birds of allowing ryegrass to go to seed in fields that farmers use to produce silage (cut grass that is stored and used as feed for animals) in the central region of UK.

The amount of seed on the ryegrass seedheads was measured in October as an indicator of seed availability for the birds and birds foraging in the ryegrass stands were counted over the winter months.

Growing ryegrass for seeds was found to be a good way of providing foraging habitats for wintering seed-eating birds. Two bunting species were frequent visitors to several of the ryegrass plots, despite the near-by availability of other land with seeds (mainly the stubble of cereal crops that had been harvested).

The two most frequent species of birds identified were yellowhammer and reed bunting, which fed mainly on the ryegrass seeds. Birds foraging on ryegrass seeds were found to have maintained healthy winter body weights. Seeds on the ryegrass are clustered which probably makes it easy for the birds to quickly strip them from the grass. The study suggests 400 seedheads per square metre provides adequate supply of seeds for winter; this is easy to determine to confirm successful establishment of the measure.

Seeds on ryegrass are still found on the plants during the late winter months when few other seeds are available for the birds. Even other seed crops grown specifically for wild birds have typically lost most seeds by January. Compared with ryegrass, there are not many other grass species that can offer birds a plentiful source of large, accessible seeds that are available throughout the winter.

Management and type of the ryegrass had a major impact on the availability of seed. Perennial ryegrass fields can be cut once for silage before the third week of May and then produce sufficient seed for wintering birds. Other varieties of ryegrass, (Italian and hybrid), can be cut twice for silage and still produce enough seed to last the winter months.

Source: Buckingham, D.L., Bentley, S., Dodd, S., Peach, W.J. (2011) Seeded ryegrass swards allow granivorous birds to winter in agriculturally improved grassland landscapes. *Agriculture, Ecosystems and Environment*. 142: 256-265.

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