

Research into the effectiveness of BirdAlert in deterring wild geese in The Netherlands

Abstract

As a water-rich country with intensive agriculture and extensive swamp areas, the Netherlands offers space for arctic migratory geese in the winter and also for breeding populations of resident geese. In recent decades, geese populations have increased significantly in The Netherlands. Geese foraging in agricultural areas cause considerable damage to crops in the Netherlands, in particular in grasslands. Damages are compensated by the government. In recent years the damage has increased sharply. In the Dutch policy on wildlife damage landowners are responsible for limiting wildlife damage using mainly non-lethal preventive measures, in order to qualify for compensation. Today, a wide range of devices to deter geese are in use, although their effectiveness is limited due to habituation.

We investigated the effectiveness of the new bio-acoustic device BirdAlert® as measure to keep Greylag and Barnacle geese out of damage-sensitive fields. Fieldwork was carried out on a total of 65 grassland plots in the provinces of Friesland, North Holland, Zeeland and Utrecht during mainly late winter to spring (January - May) in two consecutive years. We tested three treatments: 1) BirdAlert, 2) "BirdAlert plus" (the standard device with an addition of gas cannon and "Scareman") and 3) control (plots with conventional scaring practices according to common practice in the area). Presence of geese on plots was documented by means of fortnightly dropping counts on a 250 m line transect. From analysing more than 2000 measurements, we found that on plots with a "BirdAlert plus" there were significantly fewer geese droppings compared to control plots. The BirdAlert treatment was statistically not significantly different from the control treatment with conventional deterrent practices. We found no evidence of habituation by geese to the BirdAlert nor "BirdAlert plus" over an average trial period of 5.4 weeks. From observations in the field there was no indication of disturbance on waterfowl and meadow birds by the BirdAlert (device without additions). We encountered great reluctance among farmers to deploy the "BirdAlert plus" system in spring or summer, to avoid nuisance reactions among local residents.

Citation:

E.F. Kappers, J. Stahl, J.B. Latour, M. Frauendorf, K.H. Oosterbeek, M.J. Wortel 2023. Onderzoek naar de effectiviteit van BirdAlert voor het verjagen van wilde ganzen. A&W-rapport 20-377, Sovon rapport 2022/112. Altenburg & Wymenga ecologisch onderzoek, Feanwâlden en Sovon Vogelonderzoek Nederland, Nijmegen.