

PESTICIDE USAGE SURVEY REPORT 177

NORTHERN IRELAND ARABLE CROPS

2000

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Department of Agriculture & Rural Development

ISBN 1 85527 670 4

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The County Regions Of Northern Ireland



SUMMARY

This is the sixth survey of pesticide usage practices conducted in the arable sector in Northern Ireland, providing comparative data to that obtained in the previous surveys in 1990, (Jess *et al.*, 1992), 1992 (Jess *et al.*, 1995), 1994 (Jess *et al.*, 1997), 1996 (Jess *et al.*, 2000) and 1998 (Jess *et al.*, 2002).

Due to restrictions imposed by the foot and mouth outbreak of February 2001 and the inability to complete farm visits, the sample size was reduced by over one third. Consequently, information on pesticide usage was collected from 196 holdings throughout the province. Due to the reduced sample size, data collected on the use of pesticide on potatoes, both grown and stored, was unreliable and had to be omitted from this report. This report represents 15% of the total area of arable crops grown compared with 19% in the previous report.

For the purpose of this report the term 'arable' refers to all arable crops except early, maincrop and seed potatoes.

Quantitative data has been adjusted to provide estimates of total pesticide usage.

The total area of arable crops grown in Northern Ireland in 2000 was 43,447 hectares, representing a 5% decrease to that recorded in 1998 and similar to that recorded in 1994. During the period 1998 to 2000, the area of crops treated with pesticides increased by 4% to 219,504 spray hectares. The most notable increases were recorded in the use of molluscicides, 33%, and insecticides, 51%. The use of fungicides and herbicides remained similar with regard to treated-area. However, the quantity applied reduced to 14t and 43t representing a 41% and 9% reduction, respectively. Seed treatment area increased by 8% while growth regulator use reduced by 9%. Application of molluscicides to cereal crops, especially spring barley and winter wheat, contributed significantly to the overall increase in the use of this pesticide type. Organophosphate insecticides, applied to cereal crops, accounted for the increase in insecticide use, despite a 94% reduction in the use of carbamates. The principal organophosphate insecticide recorded was chlorpyrifos. The total quantity of pesticides applied to arable crops reduced by 15% from 88.2 tonnes in 1998 to 75.3 tonnes in 2000 although the area to which pesticides were applied increased by 4%.

During 2000, regional pesticide usage was directly related to the areas of arable crops grown in each county. As in previous years, County Down represented the largest area of arable crops with 18,352ha, followed by County Londonderry and County Antrim with 10,538ha and 8,263ha, respectively and this was reflected in the area treated with pesticides. Pesticides were applied to 95% of the total area of arable crops grown in Northern Ireland in 2000, with a range of 1.0 - 3.0 applications, depending on pesticide group and crop type.

Fungicides were applied to nearly 30% of the pesticide-treated area, accounting for 18% of the total quantity of pesticides used. Herbicides and desiccants were applied to 33% of the total pesticide-treated area, representing 57% of the total quantity of pesticides used. Insecticides accounted for 13% of the total pesticide-treated area of arable crops, representing 3% of the

