

The Need

(a) The justification for using pesticides in a given situation should always be assessed against any associated dangers, e.g. to wild life, and the measures necessary to guard against them should be part of the conditions of use.

(b) In any case where the use of a pesticide is known to involve a hazard to wild life, other methods of control should be preferred if they are effective and practicable.

The Suitability

(a) Pesticides should be as specific as possible in their effects.

(b) Where the use of more than one pesticide is effective and commercially practicable for a specific purpose the least hazardous and the least persistent should be used at the lowest concentrations necessary to control the pest concerned.

Safety in use

(a) Strict attention must be paid to the precautions issued with a pesticide and the manufacturers' instructions must be adhered to.

(b) Pesticides which demand safety precautions too exacting to be followed faithfully in practice should not be used.

(c) Pesticides should never be applied in weather conditions that prevent full control being exercised in their application.

(d) Aerial spraying should be used only when no other method of application is likely to be effective and commercially practicable. This applies particularly to the use of persistent compounds.

(e) Pesticide containers should be designed for easy emptying, rinsing, and disposal to minimize the dangers arising from pesticides remaining in them after use. They should either be returned to the manufacturers in accordance with instructions or effectively destroyed.

(f) There should be restrictions on the sale to the public, e.g. for private garden use, of pesticides whose use could be dangerous.

(g) Because of the rapid progress in the production of new pesticides and in the knowledge of their modes of action, intending users should consult and follow the recommendations in the official advisory publications issued from time to time by the appropriate Government agencies.

PESTICIDES AND GOLDEN EAGLES

THERE was an unprecedented drop in the number of pairs of golden eagles rearing young in the Western Highlands of Scotland between 1961-63: 29 per cent as compared with 72 per cent during 1937-60, according to a report on Insecticides and Scottish Golden Eagles, by J. D. Lockie and D. A. Ratcliffe, of the Nature Conservancy, published in *British Birds*. The nesting failures have included breakage of eggs by the eagles themselves, and the inability of the females to lay eggs. Ten eggs from seven eyries were contaminated with dieldrin, gamma-BHC and DDE. All but one had traces of heptachlor epoxide, and circumstantial evidence strongly suggested that these chlorinated hydrocarbons were responsible for the decline. Apart from the heptachlor, the birds probably get the insecticides from the fat, flesh, and fleece of sheep carrion, the sheep having absorbed them from sheep dips. The authors conclude that the decline is attributable mainly to these residues of chlorinated hydrocarbons, particularly dieldrin, in the adult birds and their eggs. As at least two-thirds of the British breeding population of eagles lives in sheep country, and, if the chemicals continue to be used, is likely to be affected, the population decline may follow that of the peregrine.