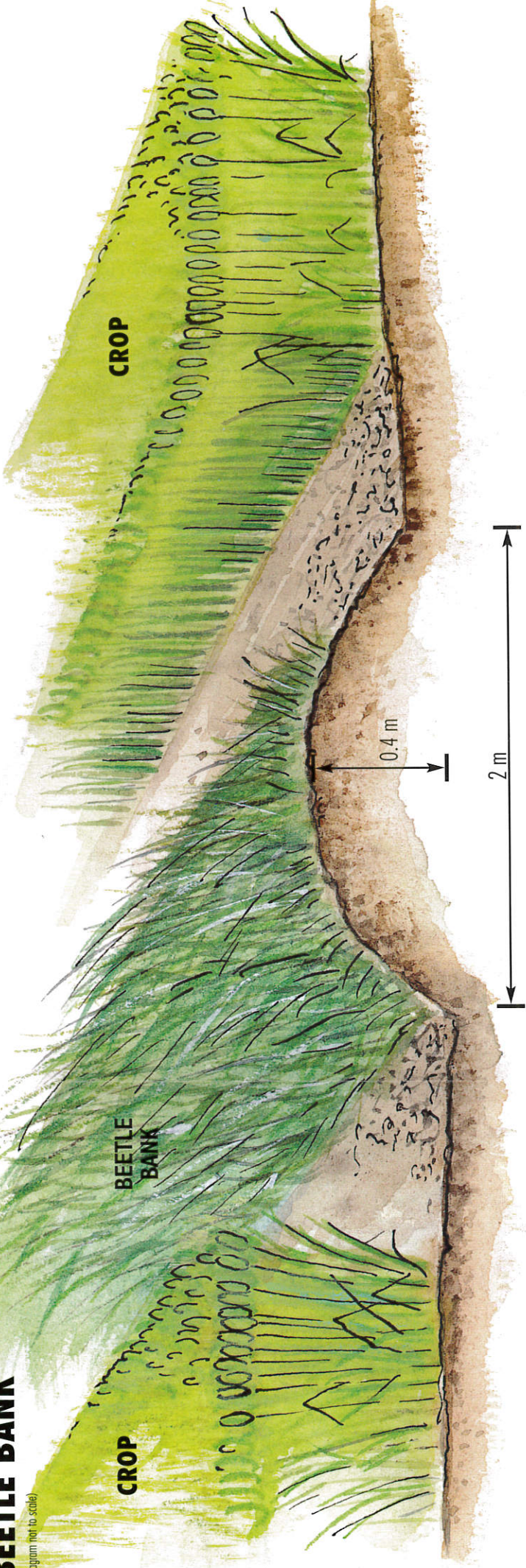


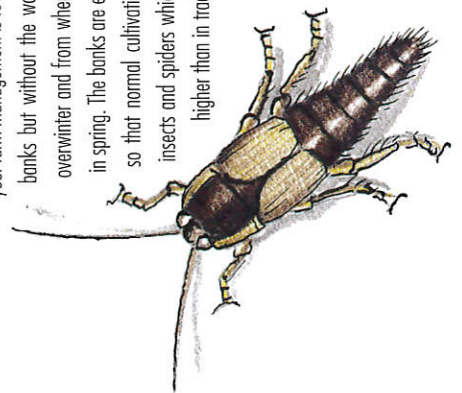
CROSS SECTION OF BEETLE BANK

(Diagram not to scale)



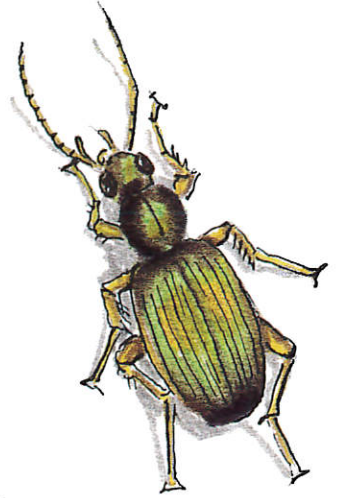
GRASS RIDGES OR BEETLE BANKS

A simple way to encourage these predatory insects and spiders without interfering with your farm management is to create mid-field refuges, like hedge banks but without the woody shrubs, where predators can overwinter and from where they can spread across the crop in spring. The banks are easy to establish and are positioned so that normal cultivation can continue. The numbers of insects and spiders which inhabit such ridges can be even higher than in traditional / existing field boundaries.



CONSTRUCTION

During normal autumn cultivation create a ridge or earth bank approximately 0.4 metres high and 1.5 to 2 metres wide by careful two directional ploughing. The length of the ridge will depend on the size of the field but allow for a working gap of one sprayer width at each end, so that you can continue to work the field as a single unit.



DRILLING

Your ridges should be hand-sown with a mixture of perennial grasses containing tussock and mat-forming species such as Cocks-foot, Timothy and Red Fescue sown at 3 g/m². Tall growing wild flowers can be added to encourage other predatory groups such as hoverflies and parasitic wasps if desired (although this is more costly). Sow either when the ridges are formed (although a harsh winter may affect grass establishment) or in the following spring. You may need to first apply a broad spectrum, non-residual herbicide to remove any opportunist weeds which have appeared. Details of our recommendation for a grass mixture (species mix, and their proportions) are available from our Field Officer.