

INTER-ROW CULTIVATION FOR BLACK-GRASS CONTROL

Searching for new tools and techniques to work alongside herbicides has driven innovation in recent years. The Garford camera-guided inter-row cultivator is a key example of this, and a piece of technology that is widely available. Niab has been focusing on this direction of travel for several years, using black-grass as the main target. Evidence so far indicates that it has the potential to be a key component of weed management in the future.

Understanding the costs involved with migrating to new techniques will become a priority, particularly as these tools are specialist and additional uses are limited. Inter-row cultivation does require some additional capital investment, however the operating costs are low, which makes for a very attractive offering. When using herbicides growers are operating under the law of diminishing returns, where the benefit gained reduces for every additional £ spent. In this context, inter-row cultivation, which might cost just £15/ha is four times cheaper than achieving that additional control with herbicides.

Due to the lower selection pressure of cultural controls compared to herbicides, and the fact they do not target just one process in the plant, their potential to slow development of resistant weed populations should also be recognised.

Figure 1. Cultivate inter-row spaces before crop stem extension; careful machine set-up minimises undercutting crop



Figure 2. The reduction in black-grass heads by integrating inter-row cultivation into a weed management programme. A combination provides the most robust control

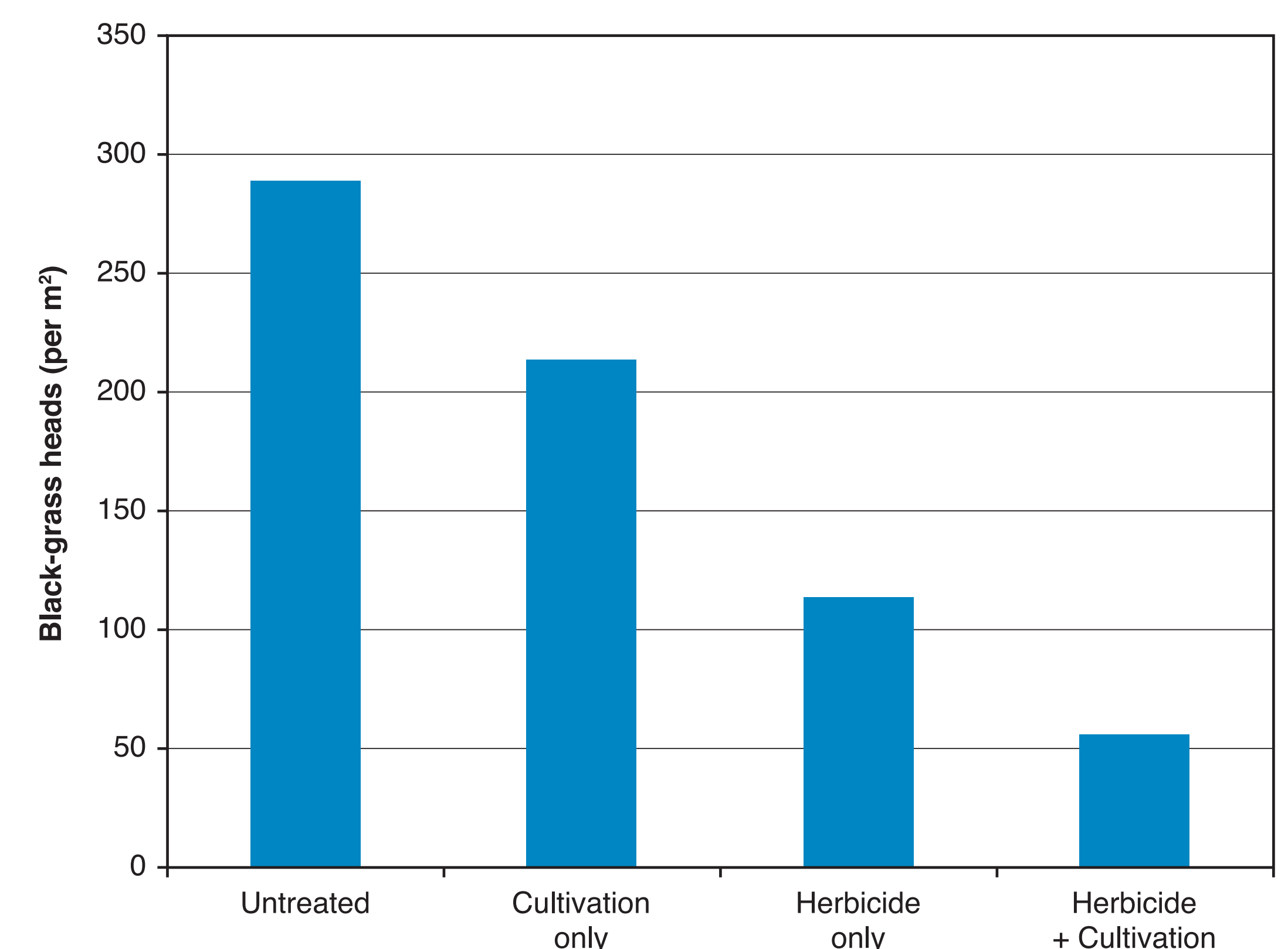
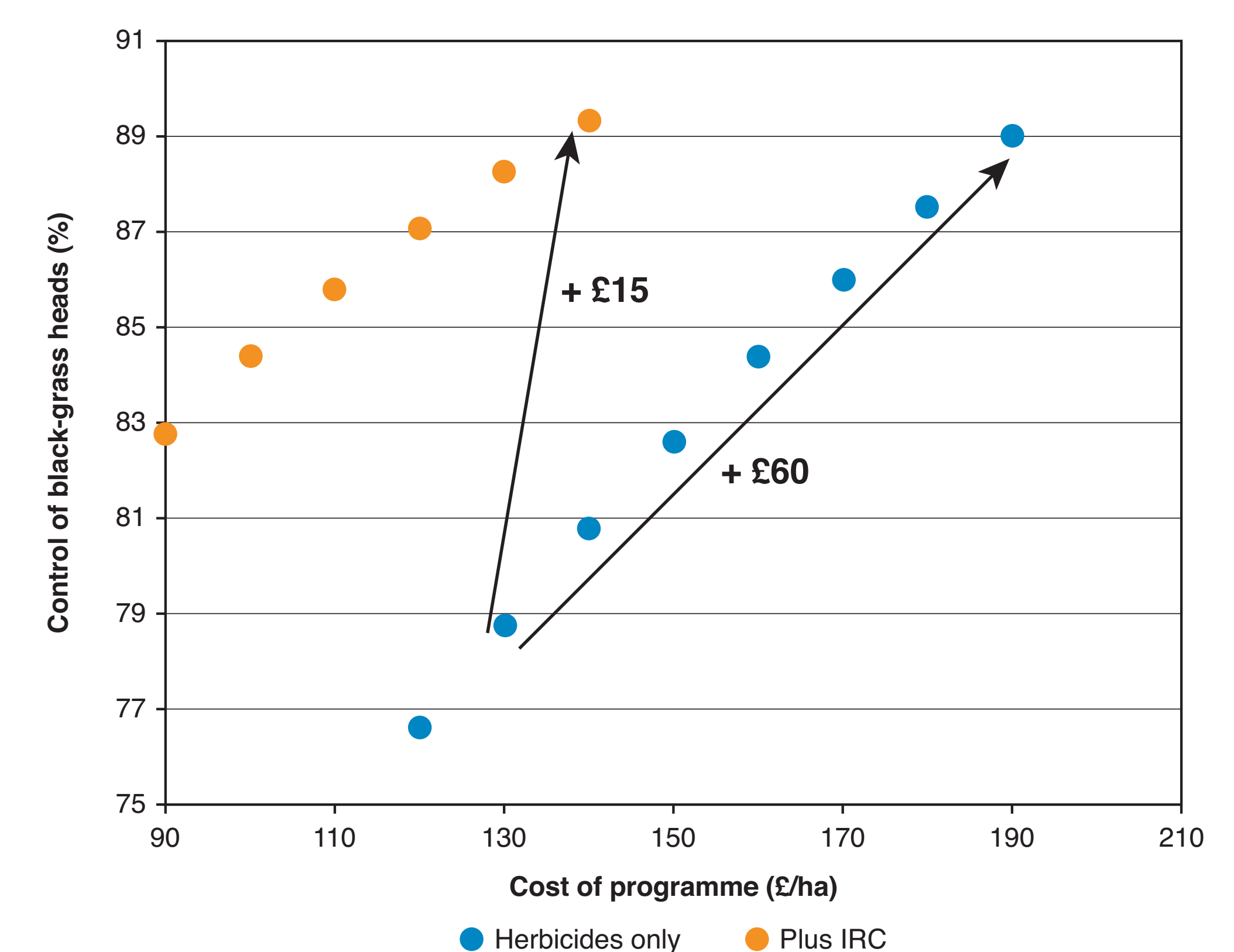
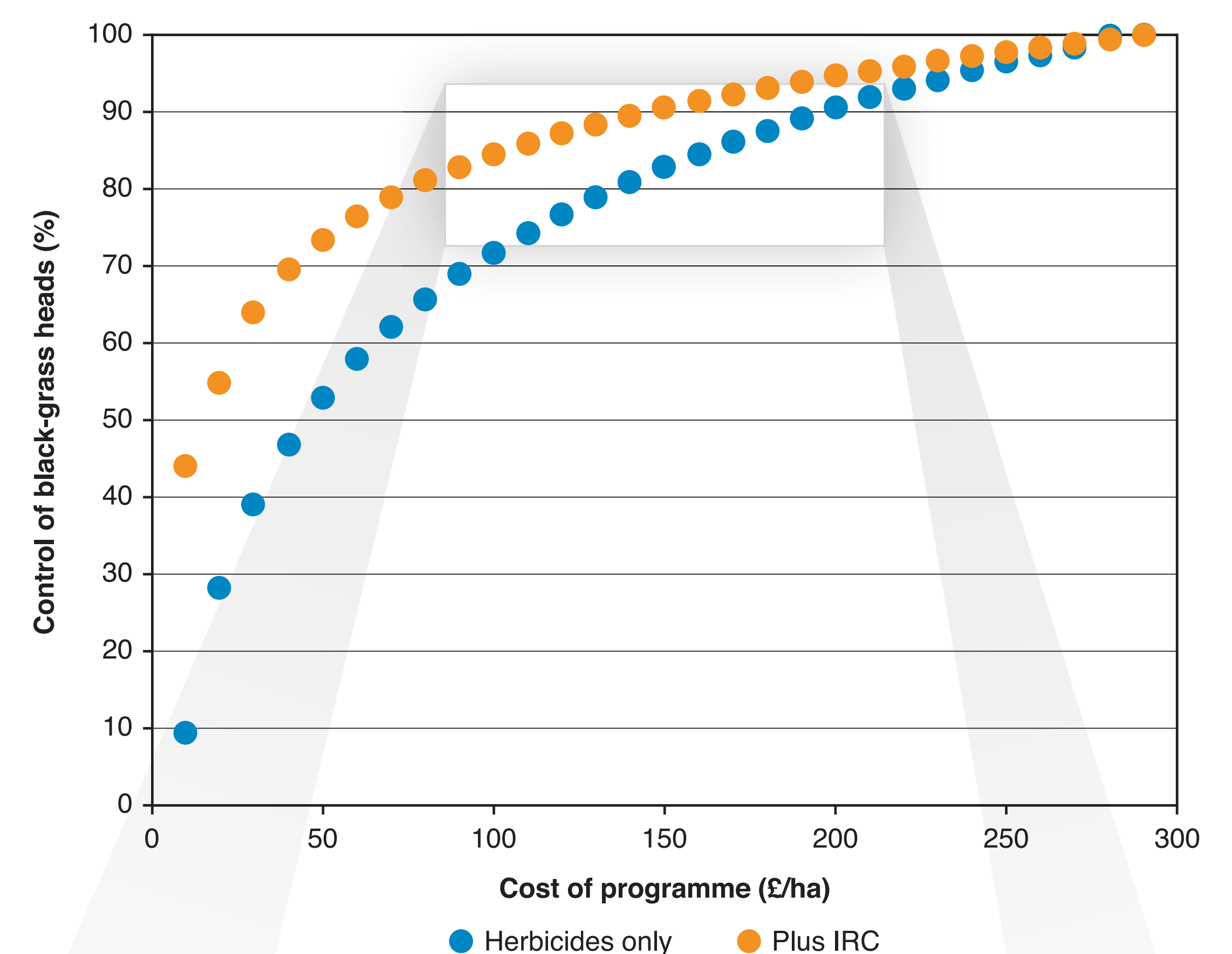


Figure 3. Cost effectiveness



All graphs: Based on 2021 economic figures