

Farmer field schools improve agricultural practices, yields and incomes in small pilot programmes, but not in large-scale programmes



Photo by Ben Barber, USAID

At least 10 million farmers have graduated from farmer field schools in Asia, Africa and Latin America

What is the aim of this review?

This Campbell Systematic Review examines the effectiveness of farmer field schools in improving intermediate outcomes (such as knowledge and pesticide use) and final outcomes (such as agricultural yields, incomes and empowerment) in low- and middle-income countries, as well as implementation factors associated with programme success and failure. The review synthesises evidence from 92 impact evaluations, of which 15 were of sufficient quality for policy-oriented findings, and 20 qualitative studies.

Farmer field schools improve farmers' knowledge and adoption of better practices, and increase agricultural production and income. However, knowledge of better practices does not spread to neighbouring farmers who do not participate in the program, and large-scale programmes are not effective.

What is this review about?

The purpose of farmer field schools is to improve farmers' skills to empower them to make better decisions. Different programmes have different objectives, but they often aim to reduce pesticides use, promote better farming practices and boost yields or income. Field schools use facilitators who employ participatory, experiential learning methods over an entire growing season. For example, farmer field schools use 'practice plots' where farmers can compare results from different farming methods. In contrast to traditional agricultural extension projects, which mainly teach simple practices such as applying fertilisers, farmer field schools often teach holistic techniques, such as integrated pest management.

Farmer field schools have been widely used across Asia, Africa and Latin America, reaching an estimated 10–15 million farmers. This review examines the effectiveness of farmer field schools in changing farmer knowledge and practice, and improving yields, income, environmental impact and farmer empowerment.

What studies are included?

The review includes 92 impact evaluation studies conducted in low or middle-income countries. The review also includes 20 qualitative evaluations of the barriers to and enablers of change in farmer field school projects.



Photo: Crops for the Future

How up-to-date is this review?

The review authors searched for studies published until October 2012; this Campbell Systematic Review was published in September 2014.

What is the Campbell Collaboration?

The Campbell Collaboration is an international, voluntary, non-profit research network that publishes systematic reviews. We summarise and evaluate the quality of evidence about programmes in the social and behavioural sciences. Our aim is to help people make better choices and better policy decisions.

About this summary

This summary was prepared by Ruth Pitt based on the Campbell Systematic Review 2014:6 'Farmer Field Schools for Improving Farming Practices and Farmer Outcomes: A Systematic Review' by Hugh Waddington, Birte Snilstveit, Jorge Hombrados, Martina Vojtkova, Daniel Phillips, Phillip Davies and Howard White (DOI: 10.4073/csr.2014.6). Tanya Kristiansen redesigned and edited the summary. Financial support from the American Institutes for Research for the production of this summary is gratefully acknowledged.



What are the effects of farmer field schools on agricultural and environmental outcomes?

Farmer field schools improve farmers' knowledge and adoption of beneficial practices, and reduce overuse of pesticides. This leads to positive outcomes for farmers: on average, a 13 per cent increase in agricultural yields and a 20 per cent increase in income. Farmer field schools also reduce pesticide use and environmental degradation. However, the evidence for these outcomes comes from short-term evaluations of pilot programmes, and no studies with a low risk of bias are available.

In small-scale pilot programmes, farmer field schools improve farmers' knowledge, adoption of beneficial practices, and yields and incomes

In programmes that were delivered at a national scale, studies conducted more than two years after implementation did not show any positive outcomes from the programme. For large-scale programmes, recruiting and training appropriate facilitators was problematic.

What are other outcomes of farmer field schools?

Empowerment is a major objective of many farmer field schools, but few rigorous studies collected information on this outcome. A few qualitative studies suggest participating farmers feel more confident.

Farmers who do not participate in farmer field schools do not learn from neighbours who do participate. The complex concepts taught in farmer field schools may be difficult to learn through conversations and self-study, so the experience gained in farmer field schools may be a key reason the intervention works.

What do the findings in this review mean?

Farmer field schools can be effective in specific contexts and may be suitable for gradual scale-up, but are unlikely to be suitable for large-scale problems. However, the evidence base on large-scale implementation of farmer field schools is limited. Hence more rigorous studies, examining the implementation and effectiveness of nationwide programmes, are needed.