



In this Zimbabwean maize field, the primed crop on the left is taller and flowered earlier than the non-primed plot on the right.

Maize

Farmers in India, Nepal, Pakistan and Zimbabwe have found priming maize seeds to be effective. Farmers in four villages of the Musikavanhu Communal Area in southeastern Zimbabwe reported a mean yield advantage of 22% following trials in the 1998/99 season. Along with other groups of farmers, such as those from the Zimuto Communal Area, they have enthusiastically adopted seed priming.

Upland rice

This crop is grown by sowing seeds directly into non-bunded, non-levelled fields rather than the practice, widespread in more favourable environments, of transplanting seedlings from nurseries into standing water. Direct

seeding is characteristic of the more marginal rice growing areas such as West Africa where the main constraints are drought and weed infestation. Research with thousands of farmers in five countries (Cameroon, Gambia, Ghana, Nigeria and Sierra Leone) between 1999 and 2004 showed that priming rice seeds in water overnight before sowing resulted in large yield increases that averaged around 45%. Priming was particularly effective in poor seasons. For example, in Ghana in 2001 primed crops in 152 farmers' trials produced 1 t/ha compared with an average of 0.53 t/ha for non-primed crops. In 20 of the trials, non-primed crops could not cope with drought at the end of the season and failed completely.