Our earlier study on farmers' adoption of ‘Push-pull’ technology (PPT) for management of cereal stemborers and *Striga* weed showed that field days (FDs) could be effective in technology dissemination. Hence, in an effort to utilize effective and economical dissemination strategies, we undertook a detailed study in 2007 to assess their effectiveness in PPT dissemination by interviewing 1492 participants randomly selected during participation in FDs. A majority (80%) of the respondents learnt about the biology and damage caused by stemborers and *Striga*, how PPT works, how to implement PPT and utilize its products, among others. Consequently, over 70% of them favoured its adoption. Participation in FDs was significantly influenced by farmer's district of residence, formal education level, disposition to seek agricultural knowledge, and intensity of *Striga* infestation and low soil fertility. Knowledge and skills about PPT learnt by respondents, FD facilitators' knowledge and skills, logistical organization and overall FDs effectiveness significantly correlated with the odds of enhancing farmers' ability to plant and manage maize using PPT. With improved organization, FDs can overcome information and learning-related constraints to stemborer and *Striga* weed control, thereby increasing cereal production.