Abstract

Investigating Capacities to Change Soil and Irrigation Practices in Vegetable Production in Two Provinces in Cambodia †

Ann Starasts 1,*, Tech Ratana 2, Yin Putheavy 2 and Ratana Kay 2

1 Centre for Agricultural Engineering (CAE), University of Southern Queensland, Toowoomba, QLD 4350, Australia
2 Cambodian Agricultural Research and Development Institute, P.O. Box 01, Phnom Penh, Cambodia; techratana@gmail.com (T.R.); yinputheavy77@gmail.com (Y.P.); c/techratana@gmail.com (R.K.)
* Correspondence: ann.starasts@usq.edu.au
† Presented at the third International Tropical Agriculture Conference (TROPAG 2019), Brisbane, Australia, 11–13 November 2019.

Published: 10 April 2020

Abstract: Improving vegetable production in Cambodia offers a pathway to grow domestic consumption and exports, and improve nutrition, profits, and livelihoods. Interviews with 120 growers and 5 focus group discussions within 5 villages investigated growers’ capacity to change soil and irrigation management in their Chinese cabbage, Petsai, Cucumber, Cauliflower, Lettuce and other vegetable crops. Low or no profitability (34% participants), insect pests (59%) and dry periods (18%) were growers’ major limitations, with small farm size (0.08 ha) and limited schooling (21–36% had no schooling) contributing to the scenario. High cost of inputs is a limitation to making farming system changes, with most growers using their own funds and less than 10% borrowing funds to pay for crop inputs. Communication and planning for vegetable growing occurred almost exclusively within families (93%), with 7.5% of participants discussing with other farmers. Lack of time (43%) and knowledge about farmer group activities (30%) limited ongoing group learning opportunities. Although very traditional, 28% of participants had tried new practices; 42% of participants indicated they will try new practices after exposure to a soil and irrigation research trial. The participants were keen learners, and after exposure to the research, 58% believed that liming improves yields and 18% prefer to evaluate this on their farms. Information sources about vegetable growing are limited, and growers had complex information needs. Facilitating and mentoring ongoing local support and technical information networks, and enhancing capacity and communication are seen as key strategies for empowering long term ability to change.

Keywords: technology adoption; Cambodia; agricultural extension; livelihoods research

Conflicts of Interest: The authors declare no conflict of interest.

© 2020 by the authors. Licensee MDPI, Basel, Switzerland. This article is an open access article distributed under the terms and conditions of the Creative Commons Attribution (CC BY) license (http://creativecommons.org/licenses/by/4.0/).