

Weed management in Conservation Agriculture systems

Editors

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Contents (proposed authors and chapter titles)

- 1 Weed ecology in Conservation Agriculture systems: an overview (e.g. weed community dynamics in low soil disturbance farming systems (e.g. Conservation Agriculture): effects on population diversity/density, concentration in surface layer; implications for weed management) (Seyed Vahid Eslami, University of Birjand, Iran)
- 2 Modelling weed dynamics in Conservation Agriculture systems (i.e. assessing potential impacts of the integrated CA weed management approach; establishing thresholds for intervention) (Natalie West, USDA-ARS, USA)

Part 1 Cultural and physical weed management techniques

- 3 Preventive weed management in Conservation Agriculture systems (including harvest seed weed control – HSWC) (Gurjeet Gill, University of Adelaide, Australia)
- 4 Cultural techniques to control weeds in Conservation Agriculture systems (range of cultural controls such as cover crops and crop residues; experience with using cultural control) (Francisco Skora Neto, IAPAR, Brazil)
- 5 The use of allelopathy in weed control in Conservation Agriculture systems (Muhammad Farooq, Sultan Qaboos University, Oman)
- 6 Roller crimping of cover crops for weed suppression in Conservation Agriculture systems (Daniele Antichi, University of Pisa, Italy)
- 7 Advances in mechanical weeding technologies for Conservation Agriculture conditions (Li Hongwen, China Agricultural University, China)
- 8 Thermal weed control in Conservation Agriculture systems (incl. electrical approaches) (Bernhard Streit, Bern University of Applied Sciences, Switzerland)

Part 2 Chemical and biological weed management techniques

- 9 State-of-the-art of the use of herbicides in Conservation Agriculture systems (Per Kudsk, Aarhus University, Denmark)

- 10 Advances in the reduction of herbicide use in Conservation Agriculture systems (Stéphane Cordeau, INRAE, France)
- 11 Dealing with herbicide-resistant weeds in Conservation Agriculture systems (Ian Heap, International Survey of Herbicide-Resistant Weeds, USA)
- 12 Advances in the use of bioherbicides in Conservation Agriculture systems (Louise Morin, CSIRO, Australia)
- 13 Biological control of weeds in Conservation Agriculture systems (including ways of promoting seed predation and decay) (Kofi Boa, Centre for No-Till Agriculture, Ghana)

Part 3 Weed management in specific production systems

- 14 Weed management in perennial Conservation Agriculture systems (Emilio González-Sánchez, University of Cordoba, Spain)
- 15 Weed management in horticultural Conservation Agriculture systems (Marcelo Zanella, EPAGRI, Brazil)
- 16 Weed management in organic Conservation Agriculture systems (Paolo Barberi, Scuola Superiore Sant'Anna, Italy)
- 17 Weed management in Conservation Agriculture-based integrated crop production systems (Ademir Calegari, IAPAR, Brazil)

Part 4 Practitioners' views

- 18 Dealing with problem weeds (e.g. parasitic weeds) in Conservation Agriculture systems (Andrew Price, USDA-ARS, USA)
- 19 Practices to avoid in Conservation Agriculture weed management (Dwayne Beck, South Dakota State University, USA)
- 20 Farmers' testimonies on weed management in Conservation Agriculture systems (Gottlieb Basch, University of Evora, Portugal)