Organic Farming and the Environment, with Particular Reference to Australia: A Review

DOI: 10.1080/01448765.1998.9755229

Jeanette Conacher^a & Arthur Conacher^b

^a 4 Mitchell Road, Darlington, WA, 6070, Australia, ^b Department of Geography, University of Western Australia, Nedlands, WA, 6907, Australia

pages 145-171

Received: 16 Jan 1997
Accepted: 30 Sep 1997
Published online: 24 Apr 2012

ABSTRACT

This paper reviews the environmental effects of organic farming, with particular reference to Australia but using some international experience as well as findings from other 'alternative' farming systems where appropriate. Beneficial environmental effects include positive changes to soil physical, biological and chemical properties in comparison with some adverse effects associated with conventional agriculture. Other benefits are linked to the opportunities provided to recycle organic wastes, the reduced use of synthetic chemicals, improvements to plant and animal quality, reductions in erosion and runoff, and potential improvements to the serious problems of soil and water salinity and the loss and deterioration of ecosystems.

However, there are also some adverse environmental effects which may accompany organic farming methods. They include diminishing soil fertility through the run-down of some soil nutrients, possible increases in soil acidity, contaminants associated with the use of some municipal and industrial soil amendments, and certain pollutants. Difficulties are also encountered by organic farmers when farming areas previously farmed by conventional methods. Suggestions are made for overcoming these and some other problems, such as the control of pests and weeds.

Whilst it is considered that the beneficial effects of organic farming outweigh the adverse, there is a clear need for further scientific research into the complex relationships between organic farming and the environment in order to provide sound advice to agronomists and farmers.