



What is this thing called organic? – How organic farming is codified in regulations



Verena Seufert^{a,b,c,*}, Navin Ramankutty^{a,b}, Tabea Mayerhofer^d

^a Institute for Resources, Environment and Sustainability, University of British Columbia, 429-2202 Main Mall, Vancouver, BC V6T 1Z4, Canada

^b Liu Institute for Global Issues, University of British Columbia, 6476 NW Marine Drive, Vancouver, BC V6T 1Z2, Canada

^c Department of Geography, McGill University, 805 Sherbrooke Street W, Montreal, QC H3A 0B9, Canada

^d Department of Geography, Technische Universität, Arcisstr. 21, 80333 München, Germany

ARTICLE INFO

Article history:

Received 10 June 2016

Received in revised form 28 December 2016

Accepted 30 December 2016

Available online 7 January 2017

Keywords:

Organic agriculture

Organic policy

Sustainability

Content analysis

ABSTRACT

Organic farming is one of the fastest growing sectors of world agriculture. Although it represents only 1% of world agricultural area, organic is one of the most recognized food labels and most people in developed countries consume some amount of organic food today. There is a wide range of interpretations of what organic means by different actors in the sector. Here we examine eight different organic regulations from across the world to understand how they have codified the large diversity of ideas inherent in organic agriculture. Our analysis shows that organic practices and regulations do not differ substantially between countries – across the board organic regulations define organic mainly in terms of 'natural' vs. 'artificial' substances that are allowed (or not) as inputs. This interpretation of organic as “chemical-free” farming, largely void of broader environmental principles, does not fully incorporate the original ideas of organic theoreticians who conceived it as a holistic farming system aimed primarily at improving soil health, thereby leading to improved animal, human, and societal health. This narrow focus of organic regulations can be explained by the interest of organic consumers who predominantly buy organic because they believe it is healthier and more nutritious due to the absence of harmful substances. Organic regulations need to place more emphasis on environmental best practices in order to ensure that organic agriculture can contribute to sustainability objectives.

© 2016 Elsevier Ltd. All rights reserved.

1. Introduction

Organic agriculture is often proposed as a solution for producing food with reduced environmental impact (Tilman, 1998; Scialabba and Hattam, 2002). Even though it constitutes less than 1% of global agricultural land and less than 5% of retail sales in most high-income countries (Willer and Lernoud, 2015), it represents one of the fastest growing food sectors. In high-income countries most people consume organic at least occasionally.¹ Organic today is the most recognized food label, whose basic meaning is understood by most consumers. And organic is the only farming system whose management practices are codified by law in most coun-

tries (Rigby and Cáceres, 2001). Organic food thus represents one of the few means through which consumers can have some control and knowledge about how their food is produced (Allen and Kovach, 2000).

But what does organic agriculture actually mean? The meaning of organic is shaped by the different actors involved – consumers, producers, theoreticians, and regulations (see Fig. 1). Accordingly, there have been many debates about the definition of organic agriculture (Rigby and Cáceres, 2001), as well as the different forms in which it manifests itself today (Guthman, 2004). Many of the commonly cited definitions are ambiguous (e.g. IFOAM, 2006), and different people associate different things with it and buy organic for different reasons (Hughner et al., 2007). This wealth of meanings and associations is also rooted in the history of organic agriculture and in the manifold ideas expressed by the original organic movement (Conford, 2001; Heckman, 2006). But the lack of a clear vocabulary and conceptualization of organic agriculture makes a discussion about its problems and benefits challenging. Indeed, debates about whether organic farming could contribute to more

* Corresponding author at: Institute for Resources, Environment and Sustainability, University of British Columbia, 429-2202 Main Mall, Vancouver, BC V6T 1Z4, Canada.

E-mail addresses: verena.seufert@ubc.ca (V. Seufert), navin.ramankutty@ubc.ca (N. Ramankutty), tabea.mayerhofer@tum.de (T. Mayerhofer).

¹ 73% of Americans, for example, consume organic food at least occasionally (Hartman Group, 2006), while 58% of Canadians say they consume organic food every week (COTA, 2013).

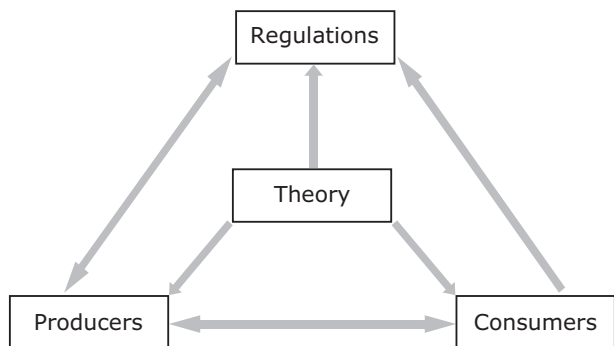


Fig. 1. The different poles of influence defining organic agriculture today. Consumer demand is considered one of the main drivers of organic agriculture (Fromartz, 2007). Producers shape how organic agriculture manifests itself in practice. Organic theoreticians influence the ideas about organic farming, and have an important role in the history of organic agriculture. Finally, regulations legally define organic practices and rules.

sustainable agriculture are often highly polarized (Trewavas, 2001; Goklany, 2002; Mäder et al., 2002).

What distinguishes organic from 'sustainable' or 'agroecological' management is that organic practices are well defined and in many countries regulated by laws. Regulation and certification is central to the current concept of organic agriculture in most countries. Regulations are therefore a useful place to start understanding how the views of the different organic actors have been codified and what organic agriculture means today (Rigby and Cáceres, 2001).

In this study we examine how organic agriculture is defined and codified in organic regulations today, and how organic practices and principles differ between regulations across the world. To this end we (1) perform an international comparison of organic practices between different regulations and standards, and (2) examine the organic principles used in the discussion and codification of organic agriculture in these regulatory texts. We then present some thoughts on the major influences on organic regulations, through (3) an analysis of environmental best practices represented in organic regulations, a (4) brief review of the ideas of organic pioneers, as well as (5) a review of the literature on motives of organic consumer. We conclude this paper with a call for an increased focus of organic regulations on environmental best practices to enhance the potential of organic agriculture to contribute to a sustainable food system.

2. The codification of organic in regulatory texts

2.1. A brief history of organic regulations

The original concept of organic agriculture developed as a critique of the emerging industrial food system in the 1920s to 1950s (Conford, 2001; Fromartz, 2007; Vogt, 2007). But it was only in the 1980s, driven by an emerging environmentalism and health-concerns about exposure to pesticides, antibiotics and hormones, that organic agriculture, which promised a more 'natural' and healthier agriculture, experienced a surge in popularity (Fromartz, 2007; Lockeretz, 2007). As organic sales began to skyrocket, organic farming organizations and consumer groups started lobbying for a legal regulation of the organic label and of organic practices, resulting in the development of national organic standards beginning in the 1980s (Conford, 2001; Schmid, 2007; Scott et al., 2009).

In the United States (US), the first state-level organic regulations emerged in the 1970s, followed by the National Organic

Programme (NOP) nearly 30 years later (Vos, 2000; Friedland, 2005; Fromartz, 2007; Mosier and Thilmany, 2016). The first European wide organic regulation was established in 1991, replacing national regulations that had been established in most countries since the 1980s (Lampkin et al., 1999; Padel et al., 2009). Some countries, like Australia, do not yet have a legally binding national organic regulation but still use widely accepted national voluntary standards defined by government bodies (AUS, 2009) or the organic industry (ACO, 2010). In recent years more and more low and middle-income countries have started implementing organic regulations in order to ease trade with high-income country markets. Uganda, for example, adopted a national organic standard in 2004, which was followed by a regional East African organic standard in 2007 (UNCSD, 2012). Similarly, after considerable growth of the organic sector, Mexico introduced a national organic program in 2006 (Nelson et al., 2010), and a national organic standard with production guidelines in 2013. Today, nearly 100 countries worldwide have implemented or are developing organic standards (OTA, 2016).

At the international level, several organizations are attempting to harmonize organic standards globally. The International Federation of Organic Agriculture Movement (IFOAM) (an umbrella organization founded in 1972) and the Codex Alimentarius (set up by the Food and Agriculture Organization (FAO) and the World Health Organization (WHO) in 2001) aim to establish a consensus definition of organic practices across different countries that facilitates free trade in nationally regulated organic food (Lampkin et al., 1999; Vos, 2000). Both the IFOAM and Codex Alimentarius standards have been very influential in the definition of many national organic standards (Lampkin et al., 1999).

2.2. Data and methods

We analyzed organic regulations from a set of representative countries across the world. To identify the most important countries, we used the most recent global organic data (Willer and Lernoud, 2015) to identify the top three countries according to four different criteria (see Table 1). The following 11 countries were selected by this process: India, Uganda, Mexico, Australia, Argentina, USA, Falkland Islands, Austria, Sweden, Germany, France.

For European countries (Falkland Islands, Austria, Sweden, Germany, France) the new harmonized EU regulation was analyzed. Australia does not have a legally binding organic regulation. Instead, we used the National Standard for Organic and Biodynamic Produce, a voluntary standard for the organic industry defined by the Australian government (AUS, 2009). In Argentina, organic agriculture is regulated through a large number of separate laws and there is no single organic standard; we therefore excluded Argentina from the analysis. Overall, we examined 8 different organic regulations representing 33 different countries (28 countries part of the EU plus 5 other countries plus 2 international framework texts; Table 2).

We used several different approaches to compare how organic agriculture is discussed in these selected regulations. First, we classified *management practices* or inputs discussed in different regulations according to whether they were required, recommended, authorized, discouraged, or prohibited by the regulations. The management practices considered included land management (conversion, parallel production), crop production (species choice, pest control, fertilization), livestock production (species choice, breeding, feed, veterinary treatments, housing, transport and slaughter) and processing (food additives, processing aids). This helped identify where regulations differed in the types of practices discussed, as well as in the extent to which these practices were regulated.

Download English Version:

<https://daneshyari.com/en/article/5070165>

Download Persian Version:

<https://daneshyari.com/article/5070165>

[Daneshyari.com](https://daneshyari.com)