

01

02

03

## Chapter 3

04

05

06

# Connecting Social Justice to Sustainability: Discourse and Practice in Sustainable Agriculture in Pennsylvania

07

08

09

10

11

12

**Amy Trauger**

13

14

Department of Agricultural Economics and Rural Sociology,  
The Pennsylvania State University, USA

15

16

17

18

19

## Introduction

20

21

22

23

24

25

26

27

28

29

30

31

32

Sustainability and sustainable agriculture are terms frequently used to position small-scale, regenerative or local agriculture as alternatives to so-called conventional agriculture. While often debated and contested, most discourses of sustainable agriculture (including those in mission statements of organisations, advertising campaigns, etc.) position these alternatives as social, economic and environmental justice (Pretty 1995; Barham 1997; Hassanein 1999; Ritchie 2003). These discourses, however, are most frequently put into practice to make farming more environmentally friendly or more profitable and often both. Both objectives can be pursued simultaneously without much conflict between them, and the logic driving the adoption of such alternatives is clear: soils that are not healthy will not produce premium crops, and farms that are not profitable will not stay in business.

33

34

35

36

37

38

39

40

41

42

43

44

45

---

Alternative Food Geographies

46

47

D. Maye, L. Holloway & M. Kneafsey (Editors)

ISBN: 978-0-08-045018-6

Copyright © 2007 by Elsevier Ltd.

All rights of reproduction in any form reserved.

#### 40 *Alternative Food Geographies: Concepts and Debates*

01 In this chapter, I seek to clarify the meaning of social justice to sustainable agriculture  
02 through an examination of social justice in the literature and to discuss the logics of  
03 social justice through the discourses and practices of two case examples. My goal is  
04 to articulate social justice as essential to the practice of sustainability and develop  
05 conceptual frameworks that connect social justice to sustainability in the same way that  
06 economic and environmental justice are connected to sustainable farming and business  
07 practices. The research is based on one year of ethnographic research in two network  
08 communities embedded in the sustainable agriculture community in Pennsylvania: the  
09 Tuscarora Organic Growers (TOG) and the Women's Agricultural Network (WAgN).  
10 These networks illustrate movements towards and away from social justice, and I use  
11 observations of their social justice discourses and practice to discuss how social justice  
12 and sustainability can and do relate to each other. This chapter is by no means an  
13 exhaustive account of social justice in sustainable agriculture, and is meant to continue,  
14 and perhaps clarify, the terms in the conversations begun by scholars and activists  
15 working towards a more socially just agriculture.  
16  
17

#### 18 **The Research Site**

19

20 Pennsylvania, with over 2.8 million rural residents, has the largest rural population of  
21 any US state (NEMW 2004), and 25% (approximately 11 million ha.) of land in the  
22 state is devoted to agriculture (ERS 2004). Pennsylvania also has a thriving sustainable  
23 agriculture community with plenty of fertile land, relatively easy access to the urban  
24 markets of the Mid-Atlantic cities and a celebrated tradition of small-scale agricultural  
25 entrepreneurship. The Pennsylvania Association for Sustainable Agriculture (PASA),  
26 founded in 1991, is a regionally significant sustainable agriculture organisation with over  
27 3000 members. PASA was formed explicitly as a 'sustainable' versus 'organic' farming  
28 organisation, because founding members felt organic farming was not sufficient to  
29 accomplish the broader goal of sustainability (Sachs, PASA Founding Member, Personal  
30 communication, March 2003).

31 The respondents involved with this study are generally: (1) members of PASA; (2)  
32 interested in or supportive of sustainable agriculture to varying degrees; and (3) directly  
33 involved with farming in some way. Criteria for inclusion in the study are membership  
34 or involvement in any of the two networks included in the study, or attendance at any  
35 of the events sponsored by either of the networks. The networks were chosen because  
36 of their articulation with sustainability in both theory and practice and their significance  
37 and visibility in the sustainable agriculture community in PA. Both networks are also  
38 historically and powerfully connected to this larger community, as both have founding  
39 members of PASA on their respective boards or steering committees.

40 The study area was chosen not only because of the large numbers of rural residents and  
41 the high level of interest in sustainable agriculture, but also because my residence in the  
42 area allows for the establishment of long-term relationships and the use of ethnographic  
43 methods. Participant observation was used with all networks under investigation and was  
44 the primary vehicle for data collection. Interviews (structured and semi-structured) and  
45 surveys were also used to collect network histories, participant perceptions and demo-  
46 graphic information. All fieldwork and data collection were conducted in the year between  
47 February 2003 and February 2004. I participated in the development of the WAgN as

01 a founder, steering committee member and organiser, roles through which I was able  
 02 to participate as both a member and a researcher.<sup>1</sup> I lived and worked on the farms  
 03 of members of the TOG cooperative for 3 weeks during the growing season of 2003,  
 04 which allowed me to interview farmers and observe the activities of the cooperative.

05 The research was conducted as part of a larger dissertation project, the focus of which  
 06 was the discourse and practice of social, economic and environmental justice in sustain-  
 07 able agriculture. In this particular piece, I focus on what kinds of logical frameworks  
 08 must be in place to incorporate social justice more fully into sustainable agriculture.  
 09 In other words, why does it make good (economic or otherwise) sense to incorporate  
 10 social justice into the sustainability paradigm? And how can social justice be incorpo-  
 11 rated as a key component to sustainability on the farm, especially when social justice  
 12 can conflict with other imperatives? From this, what can actors in network communities  
 13 practising and subscribing to sustainable agriculture tell us about the challenges and pro-  
 14 cesses of actually putting this into practice? Before answering these questions, however,  
 15 a review of social justice and sustainability in the literature is warranted.

16  
 17

## 18 Discourses of Justice: The Moral Logic of Sustainability

19

20 Sustainable agriculture is frequently defined as a social movement that draws together  
 21 diverse groups (farmers and consumers) in pursuit of broad social, economic and envi-  
 22 ronmental justice goals (Buttel 1993; Barham 1997; Hassanein 1999; Redclift 2000;  
 23 Cocklin *et al.* 2002). There are many versions of these movements that articulate differ-  
 24 ently in different places, but broadly defined they include markets that shorten supply  
 25 chains to the advantage of producers and/or production practices that aim to conserve  
 26 resources, including and especially soil and water (Pretty 1995). While transforming the  
 27 inequitable social, economic and environmental conditions produced by conventional  
 28 agriculture are priorities for sustainable agriculture, environmental soundness is often  
 29 privileged over other imperatives (Allen 1993).

30 The use of pesticides, chemical fertilisers and biotechnology and their associated  
 31 environmental problems are cited by nearly all, and particularly early, activists for  
 32 sustainable agriculture as reasons to change farming practices from chemical inten-  
 33 sive to organic (see Carson 1962; Berry 1977; Jackson 1980; Pretty 1995). These  
 34 new farming practices relied on local knowledge production for their development and  
 35 sophistication, and as such, farmers form networks to facilitate information exchange  
 36 (Hassanein 1997; Andrew 2003; Simpson *et al.* 2003). While better farming methods

37  
 38

---

39 <sup>1</sup>My role as a founder and facilitator of WAgN made my role as a researcher challenging, given  
 40 the inherent conflict between directing the organisation, and 'objectively' observing the activities  
 41 of the organisation. Two realities, however, helped maintain a creative, rather than a problematic,  
 42 tension between these two roles. First, the research methods were similar in many ways to focus  
 43 group interviews and participatory action research. I did not allow my role as a researcher to influence  
 44 any decision about the organisation. Secondly, my role as the ultimate 'insider' made my research  
 45 role almost invisible, and my presence at meetings, observing and asking questions rarely created the  
 46 sometimes artificial, and potentially biased, contexts associated with more conventional qualitative  
 47 research methods. In the interest of full disclosure, as well, I continue my research with WAgN as a  
 paid employee.

## 42 *Alternative Food Geographies: Concepts and Debates*

01 might improve environmental conditions, farmers must still produce a profit to stay in  
 02 business and to be economically sustainable. Direct marketing, community-supported  
 03 agriculture (CSA),<sup>2</sup> organic certification and cooperatives are a few of the ways in which  
 04 farmers can realise greater profits directly and help reduce the risks of farming (Hinrichs  
 05 2000; Morgan and Murdoch 2000).

06 Some scholars argue that because of this emphasis on the technical aspects of agricul-  
 07 ture (production and marketing practices) the economic and environmental justice goals  
 08 are being met, but the social justice goals are not (Allen 1993; Allen and Sachs 1993;  
 09 DeLind 1994; Sachs 1996). Social justice in the context of agriculture typically empha-  
 10 sises the social provision of quality food and nutrition to all people but also concerns  
 11 issues of labour, education and oppressive social/cultural relations (Allen *et al.* 1991;  
 12 Allen and Sachs, 1993; Delind, 1994; Shiva 1999; Feenstra, 2002). Allen (1993:11)  
 13 argues that sustainable agriculture requires the “elimination of patriarchy, racism, and  
 14 class exploitation – all of which maintain systems of power that reinforce the con-  
 15 tradictory social relations on which nonsustainable food and agriculture systems are  
 16 based”. This includes, but is not limited to, the marginalisation of women from knowl-  
 17 edge exchange and decision-making roles (Sachs 1983; Whatmore 1991; Leckie 1996;  
 18 Trauger 2004), the exploitation of farm workers (Allen *et al.* 2003) and the persistence  
 19 of hunger in the midst of unparalleled levels of food production (Allen and Sachs 1993).

20 Movements to engage with social justice include incorporating labour regulations  
 21 into organic standards or other similarly labelled codification of agricultural practices  
 22 (Henderson *et al.* 2003; Shrader 2005). Connected to this are movements to merge ‘fair  
 23 trade’ with organic standards to protect farm workers from exploitation in the same way  
 24 that independent producers are granted some forms of market protection with ‘fair trade’  
 25 initiatives (Raynolds 2000). The price premium for organic products can produce social  
 26 benefits for producers beyond the financial, such as a greater sense of security, increased  
 27 access to education, increased access to health care and so on, especially for producers in  
 28 the Global South (Bray *et al.* 2002). The organic price premium, while benefiting farmers,  
 29 can create a ‘two-class’ food system, where only the wealthy can enjoy the benefits of fresh,  
 30 healthy food, and there are increasingly calls to extend access to low-income communi-  
 31 ties through community food security and local food systems (Gottlieb and Fisher 1996;  
 32 Allen 1999). Rural development is also an outgrowth of the increased financial security  
 33 of farms practising organic or sustainable agriculture (Rosset 2000; Hillocks 2002).

34 While all of these initiatives engage with ideas of social justice, few articulate sus-  
 35 tainability *as contingent on* social justice in the same way that fair prices or soil fertility  
 36 are essential to the long-term viability of agriculture and agricultural communities. Allen  
 37 *et al.* (1991: 37) write, “sustainable agriculture is one that equitably balances concerns  
 38 of environmental soundness, economic viability, and social justice among all sectors of  
 39 society”. If sustainable agriculture is to truly achieve the social, as well as, economic and  
 40 environmental objectives to which it aspires, it will require a much wider understanding  
 41 of justice, one that incorporates, but also moves off the farm and into the social fabric  
 42 of many communities as well. How to do this, however, is not clear, and may not be  
 43

---

44  
 45 <sup>2</sup>Community supported agriculture (CSA) is a form of marketing and distribution of farm products  
 46 that involves the customers buying a share in the farm in exchange for an amount of farm produce  
 47 weekly or biweekly.

01 as straightforwardly connected to sustainability, as is profitability and soil fertility. The  
 02 following is a discussion of social justice concepts in a general sense that can aid in  
 03 connecting social justice to sustainability in essential ways.  
 04

## 05 **Social Justice and Sustainability**

06  
 07  
 08 Much of the literature on social justice discusses “distributive” justice, or that which is  
 09 concerned with the equal distribution of “good and bads” in society (Miller 1999:1). This  
 10 refers not only to social benefits such as access to education but also responsibilities, such  
 11 as military service or care for the elderly. Another aspect of distributive justice is provid-  
 12 ing individuals with “rewards proportional to their contribution” (Tyler 1999: 118). As  
 13 such, distributive justice is concerned with achieving equity and preventing exploitation.  
 14 These two frameworks suggest two ways of thinking about social justice in sustainable  
 15 agriculture. The first is to share the risks and benefits of agriculture more equally between  
 16 producers and consumers, such as in the CSA model. The second is to provide workers with  
 17 compensation proportional to their contributions, which could include profit-sharing and  
 18 decision-making authority about labour conditions, as is the case with apprentice models.<sup>3</sup>

AU1

19 Individuals tend to use their own internal measures of what is just and fair when  
 20 they identify something as unjust or unfair, even when it is not in their self-interest,  
 21 or when they are not the targets of injustice (Tyler 1999). Tyler explains, however,  
 22 that people tend to be more concerned with issues of fairness and justice when dealing  
 23 with those inside their own social group. Thus, he argues, group boundaries hinder the  
 24 expansion of social justice across social groups, and as such, expanding group boundaries  
 25 is key to expanding the scope of social justice. The sustainable agriculture movement  
 26 is inclusive of many kinds of difference, due in large part to its position in left of  
 27 centre politics, but ‘family farming’ continues to be idealised as the vehicle towards  
 28 sustainable food production (Berry 1977; Jackson 1980; Pretty 1995; Mariola 2005).  
 29 The persistence of these cultural frames endangers the future of the movement as the  
 30 typically white male-headed-family farm continues to disappear from the agricultural  
 31 landscape (ERS 2001). A social movement cannot grow when the borders of its cultural  
 32 and collective identity are impermeable. As such, expanding the scope of ‘who belongs’  
 33 to sustainable agriculture not only expands the sphere of social justice but also enrolls  
 34 new consumers and advocates on the network.

AU2

35 The literature on social justice in general tends to overlook cooperation as a concept or  
 36 framework for facilitating social justice. The literature on social justice in the food systems,  
 37 however, stresses cooperation and cooperative models, as opposed to more capitalist frame-  
 38 works, as ways to achieve social justice (Pretty 1995; Allen and Kovach 2000; Murray and  
 39 Reynolds 2000; Simpson and Rapone 2000). Fair trade coffee cooperatives, for example,  
 40

41  
 42 <sup>3</sup>Apprentice labour is a unique category of labourers in sustainable agriculture. They are typically  
 43 around 20 middle-to-upper middle class suburbanites (of all races/ethnicities, but the majority are  
 44 white) who are interested in farming and/or have a desire to experience farm life and practice  
 45 an environmental ethic. They work for room and board and a monthly stipend that is typically  
 46 well below minimum wage. They are sometimes given a stake in the profits in the farm and are  
 47 often recruited to be managers of a crew of labourers or are responsible for a particular crop on  
 the farm.

#### 44 *Alternative Food Geographies: Concepts and Debates*

01 are ways in which small-scale peasant farmers obtain a fair price for their product and share  
 02 the risks and benefits of farming in a socially just way (Simpson and Rapone 2000). Frances  
 03 Moore Lappe (1990) writes that Darwin's observations on the benefits of cooperation and  
 04 mutual aid to the survival of the fittest, are often overlooked in favour of discourses of com-  
 05 petitive behaviours. While competition is purported to provide the highest quality product  
 06 at the lowest possible price, the benefits that accrue from this strategy are tilted towards  
 07 the consumer not the producer. Thus, cooperation amongst producers (in creative tension  
 08 with competition from other cooperatives) can also provide some benefits to producers.

09 Three social justice interventions are clear for the sustainable agriculture social move-  
 10 ment in this literature, and all have specific implications for the long-term growth  
 11 and stability of the movement. First, distributive justice seeks to balance rewards with  
 12 contributions. Currently, this philosophy is well articulated within the movement and  
 13 manifested in the organic price premium, which usually benefits producers more than  
 14 labourers. Labour exploitation makes organic production increasingly less expensive,  
 15 and more widely practiced, which drives down the price premium. That this is happening  
 16 is becoming well established, as Wal-Mart adds organic produce to its supermarkets, and  
 17 organic production moves to the Global South (FAO 2001; Warner 2006). Distributing  
 18 rewards proportional to contributions will make socially just agriculture more sustain-  
 19 able than simply 'organic' agriculture in the long term, as local food systems, CSAs,  
 20 or community food security more equitably distribute the costs and benefits between  
 21 producers and consumers in ways that certification schemes cannot do alone.

22 Secondly, the old models of rural, white-male-headed households are increasingly less  
 23 viable forms of petty commodity production. Thus, new forms of agricultural production,  
 24 such as cooperatives, urban farming and community food initiatives, are increasingly  
 25 relevant and successful ways of producing food. 'Who belongs' and who practices  
 26 agriculture is rapidly changing, and in the long term, diversity allows the movement to  
 27 grow, expand and incorporate new constituencies, new consumers and new advocates.

28 Thirdly, farmers who cooperate with each other (and with natural systems) are increas-  
 29 ingly more 'competitive' in the marketplace. This takes the form of marketing or pro-  
 30 ducer cooperatives and/or the sharing of business, production and marketing practices in  
 31 open educational settings. Sustainable agriculturalists increasingly share their 'secrets to  
 32 success' with each other and increasingly reap the benefits of innovation. Cooperation  
 33 in capitalist markets not only provides both economies of scale to small-scale produc-  
 34 ers but also facilitates the spread of innovation, which makes sustainable agriculture  
 35 increasingly capable of coping with rapidly changing consumer demands.

### 36 **Social Justice in Network Communities in Sustainable Agriculture**

#### 37 *Tuscarora Organic Growers*

38 The growing season of 2003 was the worst season on record for vegetable growers  
 39 in Pennsylvania, as there were record levels of rainfall throughout the state. As Ed<sup>4</sup>  
 40 told me, however, the growers cooperative, TOG, to which he belongs was a source  
 41

42  
 43  
 44  
 45  
 46 <sup>4</sup>All first names only are pseudonyms. When first and last names are used, they are the real names  
 47 of respondents, used with permission.

*Connecting Social Justice to Sustainability* 45

01 of security and a buffer for risks. “Smaller growers benefit from the other growers in  
 02 the co-op in a year like this. The bigger growers can fill in some of the gaps and so  
 03 the co-op can still make a profit, which benefits us all”. The TOG form a marketing  
 04 cooperative that delivers fresh, ‘local’ produce to a regional market in the Mid-Atlantic  
 05 states. TOG was formed in 1988 by Jim and Moie Crawford of New Morning Farm and  
 06 five other growers in south-central Pennsylvania. The central motivation for starting the  
 07 cooperative was a need to expand and diversify the market for organic produce through  
 08 wholesaling. The founding members felt that by acting cooperatively as a wholesaler  
 09 they could capitalise on efficiencies of scale and shared resources. Currently, TOG has  
 10 13 member farms ranging in size from less than 1 ha. to more than 30 ha. All farms are  
 11 certified organic and family owned and operated.

12 While the standards defining organic agriculture outline a set of farming practices that  
 13 can help farmers obtain a price premium for their products, they provide no guidelines  
 14 for rectifying economic inequality in the food system, and some would argue that they  
 15 perpetuate inequality. It has been argued that the price premium on organic fruits and  
 16 vegetables produces a two-class food systems, where farmers and labourers produce  
 17 food they cannot afford to purchase. To make food less expensive and still realise a  
 18 profit, farmers try to find less expensive forms of labour. Due to the labour intensity of  
 19 organic practices, large farms especially rely to a greater degree on ‘cheaper’ labour than  
 20 smaller farms usually employ, and the cheapest labour to be had is migrant Mexican  
 21 labour.<sup>5</sup> Apprentices are also a cheap source of labour, as they are paid by the month,  
 22 not the hour, and often are responsible for decision-making about some aspect of the  
 23 farm operation.

24 Three of the largest farms (> 6ha.) currently use migrant Mexican labour or have  
 25 used migrant labour in the past. Three farms (two of them > 6ha.) also use apprentice  
 26 labour. The majority of the migrant labourers work as ‘field crews’, and their primary  
 27 work is picking produce in the field, but they also participate in transplanting, weeding,  
 28 preparing fields for cultivation or other kinds of labour-intensive work. Apprentices  
 29 also perform this work but are involved to a greater degree in decision-making and  
 30 supervision of labour crews. All those I interviewed about the use of migrant labour,  
 31 which included farmers, apprentice farmers, local wage labourers, truck drivers and  
 32 customers, justified the use of migrant labour in organic agriculture with some derivative  
 33 of “Americans just don’t want to work this hard”. Consistent with this message, all of the  
 34 farms using migrant labour reserved the hardest work for them. This typically included  
 35 hand harvesting, such as the tomato harvest featured in Figure 3.1. Farm apprentices  
 36 also did this work, but on farms where apprentices performed the majority of the labour,  
 37 the day was divided between picking in the cool of the day and packing produce in the  
 38 packing shed during the heat of the day. Apprentice farmers were also able to negotiate  
 39 more favourable working conditions for themselves, as they were often ‘in charge’,  
 40

41  
 42 <sup>5</sup>The majority of migrant labourers in the TOG network are recruited from the Mexican migrant  
 43 labour community drawn to the area by work in the Chambersburg, PA fruit orchards. Chambers-  
 44 burg, in south-central Pennsylvania, is climatically well suited for fruit production and supplies the  
 45 large mid-Atlantic consumer market with peaches, pears and apples. Labourers I spoke to started  
 46 at \$7.50/hour, which is above minimum wage, but still below the poverty level for a family of  
 47 three.

## 46 *Alternative Food Geographies: Concepts and Debates*

01  
02  
03  
04  
05  
06  
07  
08  
09  
10  
11  
12  
13  
14  
15  
16  
17



18  
19  
20

Figure 3.1: Migrant field crew: migrant Mexican labourers picking organic tomatoes.

21  
22

whereas migrant labour was always under the supervision of a crew leader, typically a white male.

23  
24  
25  
26  
27  
28  
29  
30  
31  
32  
33  
34  
35  
36  
37  
38

Because migrant labourers are perceived to be willing to work hard, are there to fill a demand for labour and have no recourse to change their situation on the farm, there is no need to change the working conditions that ‘Americans’ find intolerable. What the ‘good work ethic’ discourse glosses over is the fact that Mexican migrant labourers may not *want* to work this hard either. No one *wants* to work this hard, not even those who are willing to do it. The migrant labourers I spoke to told me that they felt they worked too hard because “we work so late every night, six days a week. We don’t have time to have fun, go to the beach, relax” (Antonio). Apprentice farmers, who have a much greater influence on their working conditions, on the other hand, do not feel they work too hard. “We don’t feel exploited because we are learning while we work. We also get all of our food and housing costs covered and we get a share of the profit if the farm does well” (Debbie). The irony of the “hard work” discourse is that the largest category of labour on farms in the network is family labour (36 people), followed by local wage labour (21). Migrant labourers (14) and apprentices (13) are actually the smallest categories of labour in the network. Apparently, Americans are willing to work this hard, even for little or no pay, as is the case for most family labour.

39  
40  
41  
42  
43  
44  
45  
46  
47

The scale of the operation or the diversity in crops often dictates the use and management of particular kinds of labour. However, cultural discourses often determine and/or legitimise certain labour practices as well. The stereotype of ‘hard working’ migrant labourers and ‘lazy’ Americans is an obvious example. A more subtle version of this was the shared sense of cultural identity between farm owner/operators and apprentices that was not evident between farm owners and migrant labourers. For example, apprentices frequently shared meals with owner/operators, while migrant labourers were invited to glean the fields for their meals. In addition, apprentices, ostensibly because of their aspirations to be farmers, were given decision-making authority for the farm, while



01 the migrant labourers were not, in spite of their aspirations to have farms or continue  
02 farming in Mexico.

03 Overall, the economies of scale and high levels of market orientation (the largest  
04 farms also produced for large wholesale markets at a higher volume) drive some farms  
05 to employ a diversity of low-wage labour strategies. In some cases, labourers who are  
06 viewed as culturally distinct from the owner/operator of the farm are employed, and  
07 the labour practices reflected and reproduced this cultural distinction. As a result, very  
08 little control of the production, or over working conditions, is extended to these rural  
09 'others'. In contrast, smaller-scale farms with more community-based markets (CSA)  
10 not only pursue other labour strategies that attempt to reduce the level of exploitation  
11 but also cultivate a sense of shared cultural identity between workers and employers.  
12 As such, the white, middle class, 'American' apprentice farmers (who are as likely to  
13 be 'migrant' as the Mexican labourers) are extended agency within the farm operation  
14 and are less likely to be constructed as 'others'.

15 The logical connections between sustainable agriculture and social justice are clear in  
16 this case. TOG increasingly use migrant labour as markets for organic produce become  
17 increasingly competitive, and the downward spiral of increased production and deflation  
18 of prices continue to force the use of cheaper labour. In this case, TOG moves away  
19 from concepts of distributive justice and, while still very successful, is practising the  
20 sort of competitive labour practices that may potentially undermine its own success,  
21 as well as the success of the movement in general when social justice for farmers  
22 is premised on organic price premiums. TOG, however, also practices other forms of  
23 labour management, such as apprenticeships, that ultimately produce more and better  
24 farmers. Apprentices come from all kinds of backgrounds, which expand the circle of  
25 'who belongs' to women and racial minorities. As such, TOG strengthens and broadens  
26 the social community of sustainable agriculture. Also, TOG functions as a cooperative in  
27 a competitive and capitalist market, and the success of the cooperative is clearly linked  
28 to its ability to share resources, markets and expertise. Thus, the value of cooperation  
29 is a key component not only to the long-term sustainability of the organisation but also  
30 to the movement itself. I turn now to another organisation which struggles with these  
31 same issues but in an entirely different context.

32  
33

### 34 *Women's Agricultural Network*

35  
36 The Women's Agricultural Network (WAgN) is a cooperative extension-affiliated  
37 programme developed in Vermont in 1994 that has since diffused to Maine and  
38 Pennsylvania. All three organisations are dedicated to supporting women farm own-  
39 ers/operators with educational programmes. These include business planning workshops,  
40 online courses, discussion groups, technical assistance, newsletters and conferences.  
41 Women are generally seen as an underserved population in agriculture, as farming is  
42 still strongly associated with masculinity. WAgN is an organisation devoted to rectifying  
43 this marginalisation by providing the support and resources that traditional agricultural  
44 organisations do not provide to them. WAgN connects isolated farmers and functions  
45 as a support system and a source of information and shared resources. Pennsylvania  
46 WAgN has grown rapidly since it was founded in 2003, and as of this writing boasts  
47 631 members.

48 *Alternative Food Geographies: Concepts and Debates*

01 By developing a dense network of opposition and opportunity, WAgN changes some  
02 of the patriarchal contexts of agriculture by enrolling individual actors, media and infor-  
03 mation technologies and commanding resources at various spatial scales. WAgN changed  
04 the context for educational programming for women in agriculture in Pennsylvania (as  
05 it has in Vermont and Maine), and this agency has been emergent from, and an effect  
06 of the network (for individuals and for the collective). No individual could have accom-  
07 plished WAgN’s objectives alone, but these accomplishments have been dependent on  
08 the emergence of leaders from within the collective. Leaders *assume* leadership; there  
09 are no elected positions or chairs, and all decision-making is made by consensus or by  
10 staff on advisement from members and is guided by periodic strategic planning by the  
11 steering committee (see the meeting, for example, featured in Figure 3.2). This loose  
12 framework opens multiple directions of progress and innovation, as those with expertise  
13 (i.e. farmers with knowledge to share host field days, or faculty write grants to fund  
14 programming).

15 WAgN is self-consciously committed to providing social justice by resisting the  
16 patriarchal and misogynistic worldviews embedded in both sustainable and conven-  
17 tional agriculture.<sup>6</sup> However, identifying for whom WAgN works underscores the larger  
18 question of ‘social justice for whom?’. The Pennsylvania WAgN chapter’s mission state-  
19 ment identifies the broadest possible group: “women in agriculture”, and departs from  
20 the Vermont and Maine chapters’ missions explicitly stating “women farm operators”.

21  
22

23 <sup>6</sup>WAgN is embedded within the sustainable agriculture community in Pennsylvania in various  
24 ways, but resists explicit identification with sustainable agriculture only. Currently, all of WAgN’s  
25 funding comes from sustainable agriculture and ‘small farm’ programme areas of the USDA, all  
26 founding members are members (some founding members) of PASA, and WAgN’s programmes  
27 generally all fall under sustainable agricultural practices, broadly defined, such as direct marketing,  
28 pastured livestock, CSA development, organic conversion, etc.

29  
30



31  
32  
33  
34  
35  
36  
37  
38  
39  
40  
41  
42  
43  
44  
45  
46  
47  
Figure 3.2: WAgN in action: WAgN Steering Committee at a strategic planning retreat.

01 Pennsylvania WAgN's mission statement glosses over a relatively heated debate among  
 02 the former steering committee members over who WAgN should serve, and what under-  
 03 lies this tension is a desire to target a community that does not conform to the patriarchal  
 04 paradigm of conventional agriculture.

05 Liz, a farmer, has strong opinions on this issue and identifies the audience as "women  
 06 who self-identify as directly involved in agricultural enterprises", and "women who want  
 07 to become actively involved in farming of some kind". Angela, who is not a farmer,  
 08 nevertheless also articulates a strong position on this issue: "The primary audience should  
 09 be farmers, because what is the point of ag educators or ag researchers without farmers?  
 10 Farmers are agriculture and should be the primary focus for a women in agriculture  
 11 group". Emmy, an apprentice farmer, who looks to WAgN as a source of mentors,  
 12 echoes Angela. "I would like to see more full-time women farmers. It's disheartening to  
 13 want to be a farmer and not see any examples of people doing it as a full time job". The  
 14 positioning of women farmers as the primary constituency illustrates the construction  
 15 of a woman farmer identity against the identity of 'farmwife', or a woman primarily in  
 16 supportive roles who conforms to the patriarchal model of the family farm.

AU3

17 Another strongly and widely held opinion is that it should be "all inclusive" (Emmy),  
 18 even among those who think it should be restricted, as Emmy's case illustrates. Laurie,  
 19 along with several other members of the steering committee, had reservations about  
 20 excluding any interested party:

21

22 The population we should serve is females involved in agriculture. This will  
 23 be farmers/producers (livestock, food, and fibre), farm managers, agri-business  
 24 owners/employees, ag educators, and hobby farmers. I wouldn't want to exclude  
 25 any female that has some tie to or involvement with agriculture.

26

27 In general the steering committee was split along the lines of those who wanted it  
 28 to be clear that farmwives were not explicitly excluded, and those who wanted no  
 29 part of the sexual and gender politics of traditional farm organisations that reify the  
 30 subordinate roles of women on farms. All members, however, because of WAgN's  
 31 conscious efforts against the explicit exclusion of women from education, knowledge and  
 32 authority struggled with the idea of excluding anyone (even men) for reasons that may  
 33 be entirely consistent with WAgN's project. Members have criticised programmes for  
 34 tacitly excluding men, and WAgN was encouraged by partner organisations to advertise  
 35 programmes with a 'men welcome' caveat. This is ironic given that the other activities  
 36 of these organisations regularly support programmes that do not attempt to invite women  
 37 at all. This tacit exclusion is precisely the kind of patriarchal paradigm that WAgN  
 38 positions itself against.

39 WAgN's struggles over identity and inclusivity reflect a broader struggle in the  
 40 women's movement over identity politics within women's groups. Identity politics tend  
 41 to divide women along the lines of membership in racial, class or sexual identities.  
 42 Within the community of women in agriculture, women identify themselves as 'farm  
 43 women', 'farm partners', 'women farmers' and so on. As illustrated above, identity  
 44 politics divides women who identify primarily as women farmers from women who  
 45 identify primarily as wives. WAgN members loathe to reproduce the conditions of  
 46 exclusion that marginalised women in the first place but fear welcoming those who  
 47 conform to the gender roles that WAgN helps women resist. The politics of exclusion

## 50 *Alternative Food Geographies: Concepts and Debates*

sits in uneasy tension with an ethic of inclusion, but WAgN officially attempts to subvert the injustices of exclusion by welcoming as wide an audience as possible.

Running counter to this conflict over identity is, rather paradoxically, an overarching ethic of cooperation. Women farmers, who often have much to learn about farming, are enthusiastic educators of each other. Far from being concerned about sharing their hard-earned secrets to success, women leap at the opportunity to network with other women and engage in peer learning events. Because they are often not taken seriously in largely male-dominated social contexts, they actively seek opportunities to build a peer group with other women. Women farmers consistently prefer the kinds of learning environments that feature hands-on, intensive, multiple-direction learning, and WAgN is premised on a farmer-to-farmer education model where farmers teach most of the workshops, with assistance, when necessary from relevant 'experts'. The young women changing the oil of a tractor in an equipment workshop shown in Figure 3.3 illustrate the team learning WAgN helps foster.

This is well illustrated by feedback from women who attended the National Women in Sustainable Agriculture conference in Burlington VT in 2005. WAgN was able to fund the travel and attendance of 20 women farmers from Pennsylvania, and members (including myself) of PA-WAgN were part of the conference planning committee. One participant wrote in her post-conference evaluation: "The networking opportunities with receptions and dinners were exceptional. The best part of the conference was meeting other women". Another woman translated this interaction into innovations on the farm:

There were many things about the conference that inspired me to want to [make changes to my operation]. These were: 1) how open, friendly and helpful most women were about sharing their experience and expertise; 2) stories of how women have struggled so hard to achieve what they have accomplished; and 3) how happy women in [agriculture] can be despite many challenges.



Figure 3.3: Tractor equipment workshop: WAgN members learning about equipment maintenance.

01 One participant made explicit connections between the social support activities of  
 02 networks such as WAgN and the long-term survival of agricultural businesses. “Watching  
 03 all the women interact and discuss major issues, made me realise that without sustainable  
 04 practices there will be no soil to grow food, [and] without a profitable business there  
 05 will be no money to pay the bills and remain in agriculture”. The general reaction to  
 06 the (almost) women-only space of the gathering was one of wonder at the openness  
 07 and willingness of women to share with each other, and the almost complete lack of  
 08 competitiveness in both formal and informal interactions.

09 Again, movements towards and away from social justice are clear within WAgN,  
 10 and the relevance of social justice to the future and the sustainability of the organi-  
 11 sation and the social movement within which it is embedded are manifest. WAgN is  
 12 explicit about sharing leadership, and no formal hierarchy exists within the organisation.  
 13 Leadership is ‘taken’ by actors within the organisation, and as such, the distribution of  
 14 rewards is typically proportional to the contribution. The rewards, however, are intended  
 15 to be distributed throughout the organisation to the membership. Because of the frac-  
 16 tures over ‘who belongs’ as a woman farmer, these rewards are not always evenly  
 17 distributed to those who could benefit from them. Expanding the scope and scale of  
 18 the community to a wider group is crucial to the long-term health and sustainability  
 19 of the organisation, and WAgN risks its future by excluding potential constituencies.  
 20 Despite fissures regarding its political identity, WAgN members enthusiastically share  
 21 with each other all manner of information about their farm operations. This creates a  
 22 situation where many, rather than few, can succeed, which is central to the long-term  
 23 health and sustainability of agriculture, WAgN, and the sustainable agriculture social  
 24 movement.

25  
 26

## 27 **Conclusions**

28

29 Social justice and sustainability are sometimes at cross purposes to one another. For  
 30 example, using labour-intensive, environmentally friendly practices may require farmers  
 31 to employ cheap labour to remain competitive in the marketplace and sustainable in  
 32 an economic sense. Social justice, however, does not have to be mutually exclusive of  
 33 sustainable practices, and the organisations discussed above illustrate well that ‘every-  
 34 one does better, when everyone does better’. As such, sustainability can and should  
 35 incorporate social justice as a logical practice, rather than simply a moral obligation.  
 36 Literature on social justice highlights equal distribution of responsibility and benefits,  
 37 broadening the scale and diversity of the community and cooperating across differences  
 38 and in competitive contexts. All three of these ideas have logical and tangible benefits  
 39 to the sustainability of farms, organisations and ultimately the social movement that go  
 40 beyond simply being the ‘right thing to do’.

41 In both examples, the organisations are involved with practices that move simul-  
 42 taneously towards and away from a socially just sustainable agriculture but illustrate  
 43 well the logical connections between social justice and long-term sustainability. In the  
 44 TOG cooperative, farmers employing apprentices produce new generations of farmers  
 45 and compensate them with skills and experience rather than capital. By working with  
 46 farms who increasingly use migrant labour (the source of which may not be guaranteed  
 47 in the future), TOG also moves away from sustainability and social justice by relying

## 52 *Alternative Food Geographies: Concepts and Debates*

01 on systems of political, economic and cultural oppression that both produce migrant  
02 labour in the first place and perpetuates a downward spiral in prices that necessitates  
03 cheaper and cheaper labour. On the other hand, cooperation between farmers is clearly  
04 related to the success of the organisation, and the production of new, experienced young  
05 farmers through apprenticeships is clearly a boon to the long-term success of the social  
06 movement.

07 WAgN is also committed to producing a future of farmers, but of a different cultural  
08 stripe than most conventional farmers, and highlights the importance of expanding  
09 who belongs to the 'justice' community of sustainability. Expanding the social justice  
10 community expands the space in which to distribute the goods and bads of society.  
11 Expanding the community also helps grow the movement, expand the network and  
12 creates further and future nodes of change and agency. WAgN, however, struggles with  
13 internal divisions over identity and belonging, which if unresolved, can jeopardise the  
14 future of the organisation, and is not conducive to social justice or sustainability. On  
15 the other hand, cooperation and distribution of responsibilities and benefits throughout  
16 the organisation are hallmarks of WAgN's organisation and are central to its long-  
17 term success and relevance as an organisation. The beneficial logic of expanding the  
18 agricultural community to include 'others' cannot be writ larger on the landscape as  
19 women farmers with diverse operations grow in number at the same time that male-  
20 dominated conventional agriculture continues to be in crisis.

21 In both cases, the movements towards socially just sustainability involve changing  
22 conventional paradigms around the production of food, which include both labour and  
23 property relations. TOG use an apprenticeship model which 'produces' new and well-  
24 educated farmers, in addition to the crops planted, harvested and marketed with their  
25 labour, and the capital that accumulates to the farm operation from their labour. WAgN  
26 challenges the family farming model by introducing a new cultural frame for the category  
27 of 'farmer'. In spite of the struggles over who exactly qualifies as a farmer, WAgN's  
28 existence and popularity challenges the definition of the 'family farm', and the ownership  
29 structure and the divisions of labour that implies, and thus the way the farming household  
30 is organised. In both cases, TOG and WAgN offer alternatives to conventional views of  
31 the farm as a place of production, and thus impinge on what is meant by social justice  
32 on both the scale of the household and on the scale of the community of farmers.

33 Sustainability implies perpetuating something in the future, and thus a distribution of  
34 costs and benefits through time. Justice, however, implies sharing across human (and  
35 non-human) communities, and thus suggests a distribution across space. This tension  
36 lies at the heart of the difficulty with incorporating social justice into sustainability  
37 frameworks, because it requires that we expand the boundaries of our communities.  
38 The time dimensions of sustainability are presumably infinite, but where we draw the  
39 line in space around the social justice community is less clear. Is it the household, the  
40 neighbourhood, state, nation, the world? What is clear, however, is that as the scope  
41 and scale of the sustainable agriculture community grows, so do the responsibilities to  
42 and benefits of that community. Whether we can address the challenges this presents is  
43 difficult to say, and we will probably never know if we have accomplished our goals  
44 in the future. Given this, Barry (1999) suggests that the only way to go about this is to  
45 assess the present situation, make changes and find ways to extend these visions into  
46 the future. The examples outlined here illustrate that inclusivity, plurality, equality and  
47 cooperation are crucial and necessary aspects of a sustainable agriculture in the future.

## References

- 01  
02  
03 Allen, P. (1993). Connecting the social and the ecological in sustainable agriculture. In P. Allen  
04 (Ed.), *Food for the Future: Conditions and Contradictions of Sustainability* (pp. 1–16). New  
05 York: John Wiley and Sons.
- 06 Allen, P. (1999). Reweaving the food security safety net: mediating entitlement and entrepreneur-  
07 ship. *Agriculture and Human Values* 16, 117–129.
- 08 Allen, P. and Sachs, C. (1993). Sustainable agriculture in the United States: engagements, silences,  
09 and possibilities for transformation. In P. Allen (Ed.), *Food for the Future: Conditions and*  
10 *Contradictions of Sustainability* (pp. 139–168). New York: John Wiley and Sons.
- 11 Allen P. and Kovach, M. (2000). The capitalist composition of organic: the potential of mar-  
12 kets in fulfilling the promise of organic agriculture. *Agriculture and Human Values* 17,  
13 221–232.
- 14 Allen, P., Dusen, D., Lundy, J. and Gliessman, S. (1991). Integrating social, environmental and  
15 economic issues in sustainable agriculture. *American Journal of Alternative Agriculture* 6, 34–  
16 39.
- 17 Allen, P., Fitzsimmons, M., Goodman, M. and Warner, K. (2003). Shifting plates in the agrifood  
18 landscape: the tectonics of alternative agrifood initiatives in California. *Journal of Rural Studies*  
19 19, 61–75.
- 20 Andrew, J. (2003). Key features of the regional producer network for enabling social learning.  
21 *Australian Journal of Experimental Agriculture* 43, 1015–1029.
- 22 Barham, E. (1997). Social movements for sustainable agriculture in France: a Polanyian perspec-  
23 tive. *Society and Natural Resources* 10, 239–249.
- 24 Barry, B. (1999). Sustainability and intergenerational justice. In A. Dobson (Ed.), *Fairness*  
25 *and Futurity: Essays on Sustainability and Social Justice* (pp. 93–117). Oxford: Oxford  
26 University Press.
- 27 Berry, W. (1977). *The Unsettling of America*. San Francisco: Sierra Club Books.
- 28 Bray, D., Sanchez, J. and Murphy, E. (2002). Social dimensions of organic coffee produc-  
29 tion in Mexico: lessons for eco-labelling initiatives. *Society and Natural Resources* 15,  
30 429–446.
- 31 Buttel, F. (1993). The sociology of agricultural sustainability: some observations on the future of  
32 sustainable agriculture. *Agriculture, Ecosystems, and Environment* 46, 175–186.
- 33 Carson, R. (1962). *Silent Spring*. New York: Houghton Mifflin.
- 34 Cocklin, C., Bowler, I. and Bryant, C. (2002). Introduction: sustainability and rural systems. In I.R.  
35 Bowler, C.R. Bryant and C. Cocklin (Eds), *The Sustainability of Rural Systems: Geographical*  
36 *Interpretations* (pp. 1–12). Dordrecht, Netherlands: Kluwer Academic Publishers.
- 37 DeLind, L. (1994). Organic farming and social context: a challenge for us all. *American Journal*  
38 *of Alternative Agriculture* 9, 146–147.
- 39 ERS (Economic Research Service) (2001). Structural and Financial Characteristics of US  
40 Farms: 2001 Family Farm Report. Available online at: [http://www.ers.usda.gov/publications/](http://www.ers.usda.gov/publications/aib768/)  
41 [aib768/](http://www.ers.usda.gov/publications/aib768/)(accessed 11/27/05).
- 42 ERS (Economic Research Service) (2004). Pennsylvania State Fact Sheets. Available online  
43 at: <http://www.ers.usda.gov/StateFacts/PA.HTM>, United States Department of Agriculture  
44 (accessed 1/21/04).
- 45 FAO (Food and Agriculture Organization of the United Nations) (2001). *World Markets for*  
46 *Organic Fruits and Vegetables*. Rome: Food and Agriculture Organization of the United Nations  
47 and International Trade Centre.
- 48 Feenstra, G. (2002). Creating space for sustainable food systems: lessons from the field. *Agriculture*  
49 *and Human Values* 19, 99–106.
- 50 Gottlieb, R. and Fisher, A. (1996). Community food security and environmental justice: searching  
51 for common discourse. *Agriculture and Human Values* 13, 23–32.

## 54 *Alternative Food Geographies: Concepts and Debates*

- 01 Hassanein, N. (1997). Networking knowledge in the sustainable agriculture movement: some  
02 implications of the gender dimension. *Society and Natural Resources* 10, 251–257.
- 03 Hassanein, N. (1999). *Changing the Way America Farms: Knowledge and Community in the*  
04 *Sustainable Agriculture Movement*. Lincoln, Nebraska: University of Nebraska Press.
- 05 Henderson, E., Mandelbaum, R., Mendieta, O. and Sligh, M. (2003). Toward social justice and  
06 economic equity in the food system: a call for social standards in sustainable and organic  
07 agriculture. Available online at: [http://www.cata-farmworkers.org/english%20pages/ socialjus-](http://www.cata-farmworkers.org/english%20pages/socialjusticestandardsOctober2003.doc)  
08 [ticestandardsOctober2003.doc](http://www.cata-farmworkers.org/english%20pages/socialjusticestandardsOctober2003.doc) (accessed 6/10/06).
- 09 Hillocks, R.J. (2002). IPM and organic agriculture for smallholders in Africa. *Integrated Pest*  
10 *Management Reviews* 7, 17–27.
- 11 Hinrichs, C. (2000). Embeddness and local food systems: notes on two types of direct agricultural  
12 market. *Journal of Rural Studies* 16, 295–303.
- 13 Jackson, W. (1980). *New Roots for Agriculture*. San Francisco: Friends of the Earth.
- 14 Leckie, G. (1996). ‘They never trusted me to drive’: farm girls and the gender relations of  
15 agricultural information transfer. *Gender, Place and Culture* 3, 309–325.
- 16 Mariola, M. (2005). Losing ground: farmland preservation, economic utilitarianism, and the erosion  
17 of the agrarian ideal. *Agriculture and Human Values* 22, 209–223.
- 18 Miller, D. (1999). *Principles of Social Justice*. Cambridge, MA: Harvard University Press.
- 19 Moore Lappe, F. (1990). Food, farming and democracy. In R. Clark (Ed.), *Our Sustainable Table*  
20 (pp. 143–160). San Francisco: North Point Press.
- 21 Morgan, K. and Murdoch, J. (2000). Organic vs. conventional agriculture: knowledge, power and  
22 innovation in the food chain. *Geoforum* 31, 159–173.
- 23 Murray, D. and Reynolds, L. (2000). Alternative trade in bananas: obstacles and opportuni-  
24 ties for progressive social change in the global economy. *Agriculture and Human Values*  
25 17, 65–74.
- 26 NEMW (NorthEastMidWest Institute) (2004). Rural population as a percent of state total by state,  
27 2000. Available online at: <http://www.nemw.org/poprural.htm> (accessed 3/25/04).
- 28 Pretty, J. (1995). *Regenerating Agriculture: Policies and Practices for Sustainability and Self-*  
29 *Reliance*. Washington DC: Joseph Henry Press.
- 30 Reynolds, L. (2000). Re-embedding global agriculture: the international organic and fair trade  
31 movements. *Agriculture and Human Values* 17, 297–309.
- 32 Redclift, M. (2000). *Sustainability: Life Chances and Livelihoods*. New York: Routledge
- 33 Ritchie, M. (2003). *A Search For ‘True Security’*, Keynote address at the Pennsylvania Association  
34 for Sustainable Agriculture Annual Conference, 7 February 2003.
- 35 Rosset, P. (2000). The multiple functions and benefits of small farm agriculture in the context of  
36 global trade negotiations. *Development* 43, 77–82.
- 37 Sachs, C. (1983). *The Invisible Farmers*. Totowa, New Jersey: Rowan and Ellanheld.
- 38 Sachs, C. (1996). *Gendered fields: rural women, agriculture, and environment*. Boulder:  
39 WestviewPress.
- 40 Shiva, V. (1999). Monocultures, monopolies, myths and the masculinization of agriculture. *Devel-*  
41 *opment* 42, 35–38.
- 42 Shrader, R. (2005). Social justice in agriculture forum. *Cooperative Grocer*, 116. Available online  
43 at: <http://www.cooperativegrocer.coop/>(accessed June 2005).
- 44 Simpson, C. and Rapone, A. (2000). Community development from the ground up: social-justice  
45 coffee. *Research in Human Ecology* 7, 46–57.
- 46 Simpson, I.H., Kay, G. and Mason, W.K. (2003). The SGS regional producer network: a successful  
47 application of interactive participation. *Australian Journal of Experimental Agriculture* 43,  
673–684.
- Trauger, A. (2004). ‘Because they can do the work’: women farmers in sustainable agriculture in  
Pennsylvania, USA. *Gender, Place and Culture* 11, 289–307.



*Connecting Social Justice to Sustainability* 55

01 Tyler, T. (1999). Social justice: outcome and procedure. *International Journal of Psychology* 35,  
02 117–125.

03 Warner, M. (2006). Wal-Mart eyes organic foods. *New York Times*, 12 May 2006.

04 Whatmore, S. (1991). *Farming Women: Gender, Work, and Family Enterprise*. Houndmills,  
05 Basingstoke, Hampshire: Macmillan Academic and Professional.

06  
07  
08  
09  
10  
11  
12  
13  
14  
15  
16  
17  
18  
19  
20  
21  
22  
23  
24  
25  
26  
27  
28  
29  
30  
31  
32  
33  
34  
35  
36  
37  
38  
39  
40  
41  
42  
43  
44  
45  
46  
47

01  
02  
03  
04  
05  
06  
07  
08  
09  
10  
11  
12  
13  
14  
15  
16  
17  
18  
19  
20  
21  
22  
23  
24  
25  
26  
27  
28  
29  
30  
31  
32  
33  
34  
35  
36  
37  
38  
39  
40  
41  
42  
43  
44  
45  
46  
47

01 **Chapter No: 03**

02  
03 Query No. Query

04 AU1 “Tyler 2000” has been changed to “Tyler 1999” in accordance with  
05 that given in the reference list. Please check.

06 AU2 “Tyler 2000” has been changed to “Tyler 1999” in accordance with  
07 that given in the reference list. Please check.

08 AU3 Please check whether the sense of the sentence (in quotes) “Farmers  
09 are agriculture and should be the primary focus for a women in  
10 agriculture group” is OK.  
11

12  
13  
14  
15  
16  
17  
18  
19  
20  
21  
22  
23  
24  
25  
26  
27  
28  
29  
30  
31  
32  
33  
34  
35  
36  
37  
38  
39  
40  
41  
42  
43  
44  
45  
46  
47