

# From France to the World: The International Federation of Organic Agriculture Movements (IFOAM)

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*“We created a federation of ‘movements’ at a time when organic agriculture was weakly organised and needed activists and volunteers to push the idea” Denis Bourgeois (1997).*

## Abstract

*The formation of the International Federation of Organic Agriculture Movements (IFOAM) at Versailles, France, in 1972 set organic food and farming on a strong future trajectory. It was an initiative of France’s Nature et Progrès, and driven by its then President, Roland Chevriot. IFOAM was founded with the support of a small cluster of kindred organisations: Rodale Press of the USA; the Soil Association of the UK; the Soil Association of South Africa; and the Swedish Biodynamic Association. None of these five organisations bore the term ‘organic’ in their title, nevertheless, the choice of name acknowledged ‘organic’ as the term to signify their common cause. It secured ‘organic’ as the core narrative element and as the international descriptor of what is now a clearly identifiable and differentiated segment of the global food and farming sector. From the outset ‘biodynamic’ was accepted as a special case of ‘organic’. The formation of IFOAM created an entity which united the aspirations, the philosophies and the hopes of disparate groups each with roles primarily restricted to national advocacy. IFOAM has grown to a federation of 804 organisations from 111 countries. Organic production statistics are now reported by IFOAM from 154 countries and organic sector retail sales are reported to be US\$51b annually. IFOAM is based in Bonn, Germany, and as the global umbrella advocacy group for the organic sector it is without peer.*

**Keywords:** Organic Agriculture, Organic Farming, Biodynamics, Certified Organic, International Federation of Organic Agriculture Movements (IFOAM)

## The Differentiation of Agricultures

Agriculture has been practised for more than 10,000 years (Bellwood, 2005). For most of that period there were no synthetic fertilizers or pesticides. This was an era of *ancien régime* organic agriculture where the practices were *de facto* organic.

In 1909 Fritz Haber and Carl Bosch demonstrated a process for the synthesis of ammonia from its gaseous constituents, nitrogen and hydrogen (Bosch, 1932; Haber, 1920). This achievement was rapidly developed into industrial scale production, and the Haber-Bosch process made cheap synthetic fertilizer available to farmers for the first time. It was an innovation that was rapidly adopted and it led to a transformation of agriculture (Smil, 2001). World War II witnessed the accelerated development of synthetic pesticides, including DDT. By that time there was already a nascent organic agriculture movement.

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In the first decade of the twentieth century, Franklin King, a Professor of Agricultural Physics, was an early nay-sayer against the approach of the US Department of Agriculture (USDA). King resigned his USDA position, travelled to China, Japan and Korea, and researched the practices of what he referred to as 'permanent agriculture' (Paull, 2006a). King (1911) published his findings in *Farmers of Forty Centuries, or Permanent Agriculture in China, Korea and Japan*. In that book, King (p. 274) called for a "world movement" for alternative agriculture and the promotion of permanent agricultural practices. He noted that "China, Korea and Japan long ago struck the keynote of permanent agriculture ... it remains for us and other nations to profit by their experience, to adopt and adapt what is good in their practice".

Over a ten day period in the summer of 1924 Rudolf Steiner presented a course at Koberwitz (now Kobierzycze, Poland) to farmers, many of them Anthroposophists (Steiner, 1924a, 1924b). Steiner introduced the concept of the farm as an organism, as a living entity in its own right. His message was that modern agriculture was on a wrong track and he urged participants that the agricultural suggestions and directions that he gave in the course should be tested experimentally. Steiner died the following year, but his injunction to test and then share was taken up by the Experimental Circle of farmers. This culminated in the publication by Ehrenfried Pfeiffer in 1938 of *Bio-Dynamic Farming and Gardening* (Paull, in press).

The term 'organic farming' appeared for the first time in Lord Northbourne's 1940 book *Look to the Land* (Paull, 2006b). Northbourne's book was a manifesto of organic agriculture in which he clearly articulated a contest which he characterized as: "organic versus chemical farming" (1940, p.81). This terminology of 'organic' as a differentiated mode of agriculture promptly appeared thereafter in the USA, Australia and elsewhere.

In the USA, publishing entrepreneur Jerome Rodale published the first issue of *Organic Farming and Gardening* in 1942. Now as *Organic Gardening* and published by Rodale Inc., it is the world's first as well as the world's longest running continuously published periodical to identify itself as 'organic'.

The world's first advocacy group specifically established to promote 'organic' farming was the Australian Organic Farming and Gardening Society (AOFGS) which was founded in Sydney in October 1944. After WWII restrictions on paper were lifted, the AOFGS published a quarterly journal, the *Organic Farming Digest*, with the first issue dated April 1946. It was the world's first 'organic' periodical published by an 'organic' association (Paull, 2008).

Other organisations and periodicals appeared in the decades that followed, with varying emphases and adopting a variety of terminology, but having in common a disquiet with the dominant direction, philosophy and practices of food production. Now a leading organics advocate, the UK's Soil Association, founded in 1946, at its inception placed its emphasis on the soil, urged soil research, and made no mention of 'organic' in its foundational *Memorandum and Articles of Association* (Douglas, 1946).

The earliest set of principles declared by an organics organisation appears to be that presented by the Australian Organic Farming and Gardening Society (Paull, 2008). A declaration of principles is something that consistently eluded the UK Soil Association for decades as it was long preoccupied with soil, compost and science, and enmeshed with its 'Haughley Experiment' (Balfour, 1962).

## Versailles, France, 1972

A meeting held in Versailles, France, on 5 November 1972, marked a significant milestone for organics. It was perhaps nothing more than coincidence that the date was Guy Fawkes Day. Five national organisations came together to form an international organisation, the International Federation of Organic Agriculture Movements (IFOAM).

**Table 1:** *The five founding organisations of IFOAM.*

Organisation	Country
Nature et Progrès	France
Rodale Press	USA
Soil Association	UK
Soil Association of South Africa	South Africa
Swedish Biodynamic Association	Sweden

The prime mover for that founding meeting was Parisian engineer, Roland Chevriot, President of the French national farmer organisation, Nature et Progrès (Bourgeois, 1997; Geier, 2007). Nature et Progrès was founded in 1964 by a group of: “Agronomists, doctors, farmers and consumers”<sup>2</sup> (Roure, 2007, p.9). Nature et Progrès had been formed to develop organic production, to promote the benefits of organic food (“produits bio”), and to warn of the dangers of modern agriculture and pesticides<sup>3</sup> (Roure, 2007).

Roland Chevriot had been the President of *Nature et Progrès* for two years when he developed the idea of organising “a big national conference”, and then, to take advantage of that conference, to bring together representatives of kindred organisations and to launch “an international federation” (Bourgeois, 1997, p.12).

Denis Bourgeois had then just completed a BA. He states that: “my dissertation had been on organic agriculture in France” (Bourgeois, 1997, p.12). Chevriot offered him the task, without pay, of helping to organise the conference for November 1972. Chevriot, he says, was: “a master in the art of getting the ball rolling, doing great things starting from nothing”.

Chevriot’s idea of an international federation “came to him in May [1972], when he made a trip to the USA” (Bourgeois, 1997, p.12). On a business trip to the US, Chevriot took the opportunity to meet with Bob Rodale of Rodale Press. Jerome Rodale, the founder of the world’s first ‘organic’ journal, and America’s leading advocate of organics over the past three decades, had died the previous year on 2 June 1971 (Rodale, 1971). His son, Robert ‘Bob’ Rodale, had worked with his father since 1948, and by 1956 Bob Rodale was President of Rodale Press (Gross, 2008). By the time of meeting with Chevriot, Bob Rodale was well experienced as the Editor of *Organic Farming and Gardening* (Rodale, 1962).

According to Bourgeois (Bourgeois, 1997, p.13), Chevriot discussed the idea of an international organics federation with Bob Rodale, and “this talk had played an important role in his decision to implement the idea”.

Bourgeois (Bourgeois, 1997, p.13) recalled that he had sent out “probably more than fifty” invitations in total for the inaugural meeting. This would put his acceptance rate at about ten percent. Of the name ‘International Federation of Organic Agriculture Movements’, he relates that it had been: “invented ... to give a name to the project in the letters that we sent around”. Bourgeois’ recollection, of the choice of name, is that: “this matter was not discussed at the initial meeting and every one took the provisional name for granted, so the name IFOAM came into being”. The acronym has the advantage of being pronounceable, as ‘i foam’, and the disadvantage of sounding reminiscent of a washing-up detergent.

The inaugural IFOAM meeting was genuinely ‘international’, with representatives from Europe, Africa and USA (Table 1), and biodynamics was represented from the outset. Asia was not represented at the inaugural meeting, and nor was the Pacific. New Zealand’s *Humic Compost Society* had been founded in Auckland in 1941 and became the *Soil & Health Association of New*

2 The original French: “Agronomes, médecins, agriculteurs et consommateurs”.

3 The original French: “... ils souhaitent développer ce mode de production, promouvoir les qualités nutritionnelles et sanitaires des produits bio et sensibiliser les personnes sur les dangers de l’agriculture moderne et notamment des produits chimiques de synthèse (pesticides)”.

*Zealand* in 1972 (Paull, 2008). It was perhaps precluded from the founding meeting due to the ‘tyranny of distance’ and the attendant costs.

In Australia, at least some of the first wave of organic organisations had failed by 1972. The trail-blazing Australian Organic Farming and Gardening Society was wound up in 1955 (Paull, 2008). The *Living Soil Association of Tasmania* which had been founded in Hobart in 1946 had ceased by 1960 (Paull, 2009b). A second wave of organics advocacy groups in Australia was in a formative stage at this time.

In June 1972 when Chevriot and Bourgeois were planning the new federation in Paris, the Organic Farming and Gardening Society of Tasmania was founded (Stevenson, 2009). The Soil Association of South Australia (SASA) was founded in 1975 (Langley, 1975), however its precursor organisation, the Soil Association (South Australian Group) had been formed in 1965. I did not locate a Bourgeois invitation letter to the inaugural IFOAM meeting in the recently formally established SASA archive (Paull, 2009d). For whatever the reasons, distance, cost, or lack of an invitation, there was no Antipodean representation at the IFOAM founding.

According to Geier (2007, p. 117):

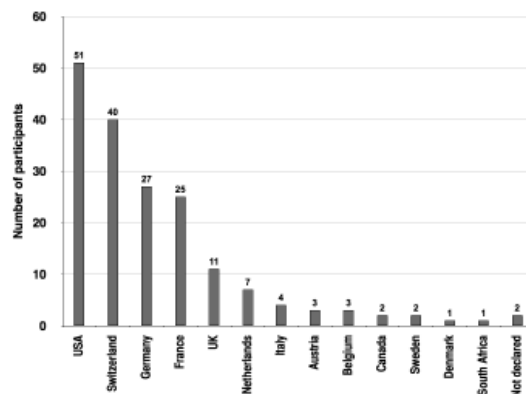
“At the time organic farming was anti-establishment, if not absolutely revolutionary. This spirit was reflected in the early days of the federation, when no minutes or records were kept and no hierarchal structure or positions were wanted or established”.

IFOAM embodied in its name King’s (1911, p. 241) call for a “world movement”, Northbourne’s (1940, p.81) advocacy of “organic” farming, and the international vision of “great and fruitful results for all humanity” of Steiner (1924a, lecture VIII, p. 20).

IFOAM was initially, by design, a federation without a president (Geier, 1998). To be registered in France as a non-profit organisation the alternative to a president was: “at least three responsible persons” (Geier, 1998, p.1). Three Frenchmen took the roles: Claude Aubert as Secretary; Roland Chevriot as Treasurer; and Denis Bourgeois as Administrator (Geier, 1998).

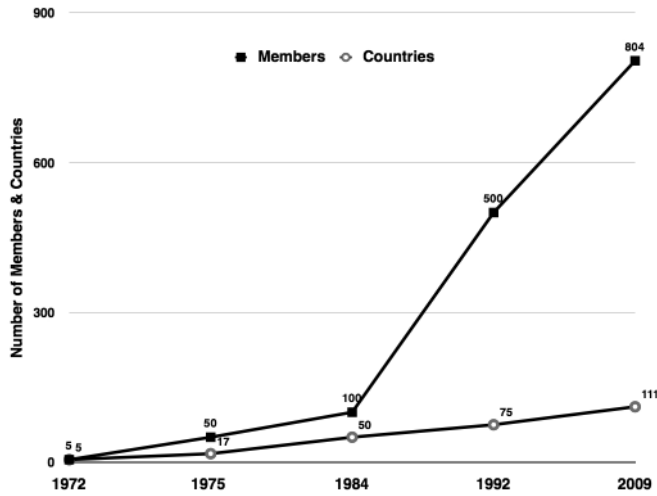
## Growth

By 1975 IFOAM had grown to 50 members with 17 countries represented (Geier, 1998). The first IFOAM conference appears to have been ‘Towards a Sustainable Agriculture’ held in Sissach, Switzerland (Besson & Vogtmann, 1978). The conference attracted 179 participants from a total of 13 countries (Fig. 1).



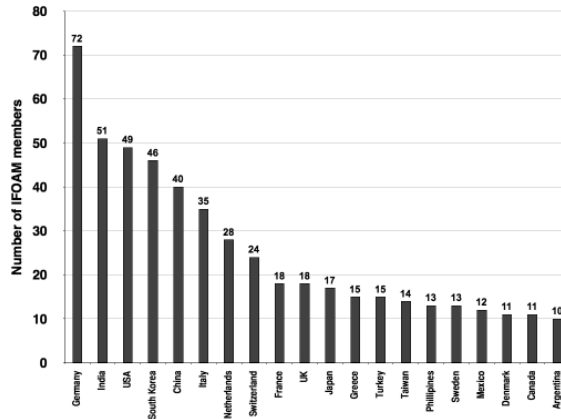
**Figure 1:** Country of domicile of participants in the first IFOAM conference, 1977, N=179 (Data source: Besson & Vogtmann, 1978).

By 1984 there were 100 members from 50 countries (Geier, 1998). The next five years was a period of dramatic expansion with the IFOAM membership growing to 500 and spanning 75 countries (Geier, 1998). This rapid expansion was put down to, firstly, IFOAM overcoming its “merchantphobia” and accepting many new processor and trader members and, secondly, from 1986 onwards, to an influx of members from the “third-world” Geier (1998, p.3). Membership of IFOAM has continued to grow, with currently 804 member organisations in 111 countries (IFOAM, 2009c) (Figs. 2 & 3).



**Figure 2:** The growth of IFOAM from 1972 to the present, as measured by the number of members and the number of countries represented (Data Sources: Geier, 2007; IFOAM, 2009c).

The rapid geographic diffusion of the organics meme is illustrated by the contrast of countries represented in Fig. 1 and Fig. 3. At the 1977 IFOAM conference there were no participants from Asia. Participants from USA and Switzerland dominated that conference, accounting for more than half of the attendees (Fig. 1).



**Figure 3:** Ranking of top 20 countries (N=111) by membership (N=804) of IFOAM in 2009 (Data Source: IFOAM, 2009c).

The membership figures for IFOAM in 2009 reveal that three of the top five countries are now from Asia (India, South Korea, China) (Fig. 3). This 'shift' towards Asia is also exemplified by the composition of the current World Board of IFOAM, elected at the IFOAM Annual General Meeting (AGM) at Vignola, Italy in 2008, in which four of the ten members are from Asia (there are also two from Europe, and one from each of: Africa; Oceania; North America; and South America) (IFOAM, 2009e). At the 2008 AGM meeting, bids from Taiwan, Philippines and Korea competed to host the forthcoming Organic World Congress. Members awarded Korea the right to host the triennial Congress to be held in 2011, the first to be held in Asia (IFOAM, 2009d; Paull, 2009a).

## The Present

At the time of the founding of IFOAM advocates of organics were viewed as "marginal and eccentric" (Geier, 1998, p.1). By way of contrast, IFOAM is now engaged with many multilateral organisations including the United Nations and presents a unified voice of the organics sector in a variety of international forums including:

- ECOSOC Status with the United Nations General Assembly;
- The Food and Agriculture Organization of the United Nations (FAO);
- United Nations Conference on Trade and Development (UNCTAD);
- Codex Alimentarius Commission (FAO and WHO);
- World Trade Organization (WTO);
- United Nations Environment Program (UNEP);
- The Organization for Economic Cooperation and Development (OECD); and the
- International Labor Organization of the United Nations (ILO) (IFOAM, 2009b).

IFOAM's current definition of 'organic agriculture' is:

"Organic agriculture is a production system that sustains the health of soils, ecosystems and people. It relies on ecological processes, biodiversity and cycles adapted to local conditions, rather than the use of inputs with adverse effects. Organic agriculture combines tradition, innovation and science to benefit the shared environment and promote fair relationships and a good quality of life for all involved" (IFOAM, 2008a).

IFOAM is unequivocal in declaring that organic agriculture is a principle-based agriculture (IFOAM, 2005, 2006). IFOAM has worked to articulate, refine and proliferate a set of principles and has taken the lead to be guided by principles rather than scientism. The current statement of four principles - health, ecology, fairness and care - is presented in Table 2.

IFOAM's motto is: "Uniting the Organic World" (IFOAM, 2008b, p. 5). It is easy to imagine that Roland Chevriot would be proud of the evolving stature of his 'child' and approving of its stated objective: "Our goal is the worldwide adoption of ecologically, socially and economically sound systems that are based on the principles of Organic Agriculture" (IFOAM, 2008b, p. 6).

**Table 2:** IFOAM's four principles of organic agriculture (IFOAM, 2006).

IFOAM's four principles of organic agriculture
Principle of health: Organic Agriculture should sustain and enhance the health of soil, plant, animal, human and planet as one and indivisible.
Principle of ecology: Organic Agriculture should be based on living ecological systems and cycles, work with them, emulate them and help sustain them.
Principle of fairness: Organic Agriculture should build on relationships that ensure fairness with regard to the common environment and life opportunities
Principle of care: Organic Agriculture should be managed in a precautionary and responsible manner to protect the health and well-being of current and future generations and the environment.

Nature et Progrès, however, is faring less well than its progeny. Nature et Progrès is a member of IFOAM, but appears trapped in a bureaucratic cul-de-sac. It operates its own organic standard and maintains its own logo under a participatory guarantee scheme (PGS). It is now “not allowed to call its products ‘organic (or ‘biologique’ in French) due to [it lacking] the third party certification requirements of the EU regulation” and consequently “organic shops are starting to refuse the N&P products” (IFOAM, 2009a). The dilemma and the irony for Nature et Progrès is that the ‘success’ of unification and proliferation has led to the increasing bureaucratization and governmental regulation of the organics sector. While the ‘parent’ persists on its own organics path, it is being progressively marginalized as the international organisation that it spawned becomes progressively mainstreamed.

IFOAM has most recently published organic agriculture data from 154 countries, reporting a total of 35 million agricultural hectares under organic management, 1.4 million organic producers, and 488 organic certification bodies (Willer & Kilcher, 2010). These are worthy achievements which genuinely give IFOAM something to brag about, nevertheless, only 0.81% of the world’s agricultural land is organically managed (Willer & Kilcher, 2010). At the current rate of adoption, to achieve an IFOAM Otopia of 100% organic agriculture globally, would take four or fifty four decades - the former if a geometric rate of increase were to be maintained, and the latter if an arithmetic rate of increase were to eventuate (Paull, 2009c).

## Concluding Remarks

IFOAM is a remarkable success story, the bold idea of a Frenchman to safeguard and promote healthful food production. If it was a grocery item, it might be labelled: “Made in France from local and imported ingredients”. Roland Chevriot successfully planted his conviction that chemical agriculture is not a pathway to global health and well-being. Chevriot’s creation has grown from its modest inception in 1972 to be a creditable global peak body for the organics sector. IFOAM was a reification of F. H. King’s distant call from 1911 for a ‘world movement’.

IFOAM has succeeded in overcoming differences in language, culture and philosophy, to unify those who share disquiet at certain directions that modern agriculture and food production are taking, while accommodating and even fostering a diversity of views and practices within its own ranks.

Three decades before the founding of IFOAM, Northbourne (1940, p. 115) had already predicted that:

“It is a task for generations of concentrated effort, slow and laborious, needing all available skill and resources ... A combination of cooperation and individual effort ... And those engaged will be fighting a rearguard action for many decades, perhaps for centuries”.

IFOAM challenges the power and wealth of pesticide and biotech companies. It is an asymmetric contest and while the achievements of the organics sector to date are great, the task ahead is even greater.

## References

1. Balfour, E. B. (1962). *The Haughley Experiment, The first twenty-five years, 1938-62*. Haughley: New Bells Farm.
2. Bellwood, P. (2005). *First Farmers: The Origins of Agricultural Societies*. Malden, USA: Blackwell Publishing.
3. Besson, J.-M., & Vogtmann, H. (Eds.). (1978). *Towards a Sustainable Agriculture: IFOAM International Conference Sissach 1977*. Aarau, Switzerland: Verlag Wirz.
4. Bosch, C. (1932). The Development of the Chemical High Pressure Method During the Establishment of the New Ammonia Industry *Nobel Lectures, Chemistry 1922-1941* (1966 ed., pp. 197-241). Amsterdam, Netherlands: Elsevier Publishing.
5. Bourgeois, D. (1997). How it all began. *Ecology and Farming*, (17), pp. 12-14.
6. Douglas, F. C. R. (1946). *Memorandum and Articles of Association of The Soil Association, Ltd.* 12 pp.; London: F. C. R. Douglas, Solicitor.
7. Geier, B. (1998). *A Look at the Development of IFOAM in its First 25 Years*. Bonn: IFOAM.
8. Geier, B. (2007). IFOAM and the History of the International Organic Movement. In W. Lockeretz (Ed.), *Organic Farming: An International History* (pp. 175-186). Wallingford, UK: CABI.
9. Gross, D. (2008). *Our Roots Grow Deep: The story of Rodale*. Emmaus, PA: Rodale Inc.
10. Haber, F. (1920). The Synthesis of Ammonia from its Elements *Nobel Lectures, Chemistry 1901-1921* (1966 ed., pp. 326-340). Amsterdam, Netherlands: Elsevier Publishing.
11. IFOAM (2005). *General Assembly of IFOAM approves Principles of Organic Agriculture* (press release ed.). Bonn: International Federation of Organic Agriculture Movements (IFOAM).
12. IFOAM (2006). *Principles of Organic Agriculture*. Bonn: International Federation of Organic Agriculture Movements (IFOAM).
13. IFOAM (2008a). Definition of Organic Agriculture. Retrieved 4 August 2009, from [http://www.ifoam.org/growing\\_organic/definitions/doa/index.html](http://www.ifoam.org/growing_organic/definitions/doa/index.html).
14. IFOAM (2008b). *IFOAM Program 2008*. Bonn: International Federation of Organic Agriculture Movements (IFOAM).



15. IFOAM (2009a). *Nature et Progrès*. Bonn: International Federation of Organic Agriculture Movements (IFOAM).
16. IFOAM (2009b). Official Status. Retrieved 11 August 2009, from [http://www.ifoam.org/about\\_ifoam/status/index.html](http://www.ifoam.org/about_ifoam/status/index.html).
17. IFOAM (2009c). Organic Online Directory. Retrieved 10 August 2009, from [http://www.ifoam.org/organic\\_world/directory/index.html](http://www.ifoam.org/organic_world/directory/index.html).
18. IFOAM (2009d). Organic World Congress 2011 Korea. Retrieved 10 November 2009, from [http://www.ifoam.org/events/ifoam\\_conferences/general\\_assembly/OWC2011bid\\_korea.html](http://www.ifoam.org/events/ifoam_conferences/general_assembly/OWC2011bid_korea.html).
19. IFOAM (2009e). The IFOAM World Board. Retrieved 10 November 2009, from [http://www.ifoam.org/about\\_ifoam/inside\\_ifoam/boards.html](http://www.ifoam.org/about_ifoam/inside_ifoam/boards.html).
20. King, F. H. (1911). *Farmers of Forty Centuries, or Permanent Agriculture in China, Korea and Japan*. Madison, Wisconsin: Mrs. F. H. King.
21. Langley, F. A. (1975). *Constitution*. Adelaide: Soil Association of South Australia.
22. Northbourne, Lord (1940). *Look to the Land*. London: Dent.
23. Paull, J. (2006a). Permanent agriculture: precursor to organic farming. *Journal of Bio-Dynamics Tasmania*, (83), 19-21.
24. Paull, J. (2006b). The farm as organism: the foundational idea of organic agriculture. *Journal of Bio-Dynamics Tasmania* (80), pp. 14-18.
25. Paull, J. (2008). The lost history of organic farming in Australia. *Journal of Organic Systems*, 3(2), pp. 2-17.
26. Paull, J. (2009a). Korea Rediscovered Organic Agriculture. *Journal of Bio-Dynamics Tasmania*, 95, pp. 22-26.
27. Paull, J. (2009b). The Living Soil Association: Pioneering Organic Farming and Innovating Social inclusion. *Journal of Organic Systems*, 4(1), pp. 15-33.
28. Paull, J. (2009c). *The Path to Otopia: an Australian Perspective*. Paper presented at the Launch of the Historical Research Archive of the Soil Association of South Australia (SASA).
29. Paull, J. (2009d). *The Path to Otopia: an Australian Perspective*: Keynote Address: Launch of the Historical Research Archive of the Soil Association of South Australia (SASA), State Library of South Australia, Adelaide, 4 February.
30. Paull, J. (in press). Biodynamic Agriculture: The Journey from Koberwitz, 1924-1938. *Journal of Organic Systems*.
31. Pfeiffer, E. (1938). *Bio-Dynamic Farming and Gardening: Soil Fertility Renewal and Preservation* (F. Heckel, Trans.). New York: Anthroposophic Press.

32. Rodale, J. I. (Ed.). (1942). *Organic Farming and Gardening*. Emmaus, Pennsylvania: Rodale Press, 1(1) pp. 1-16.
33. Rodale, R. (1962). With the Editor: Exploring the unknown earthworm. *Organic Gardening and Farming*, 9(12), pp. 17-19.
34. Rodale, R. (1971). J. I. Rodale, In memoriam. *Organic Gardening and Farming*, 18(8), pp. 36-41.
35. Roure, K. (2007). *Les Systèmes de Garantie Participatifs, pour l'agriculture biologique associative et solidaire*. Uzès, France: Nature & Progrès.
36. Smil, V. (2001). *Enriching the Earth: Fritz Haber, Carl Bosch, and the Transformation of World Food Production*. Cambridge, USA: The MIT Press.
37. Steiner, R. (1924a). *Agriculture Course* ("Printed for private circulation only"; 1929, first English language edition; George Kaufmann Trans ed.). Dornach, Switzerland: Geotheanum.
38. Steiner, R. (1924b). To All Members: The Meetings at Koberwitz and Breslau. *Anthroposophical Movement*, 1, pp. 9-11.
39. Stevenson, G. (2009). *Ahead of their Time: A History of the Organic Gardening and Farming Society of Tasmania*. Somerset, Tas: Dunghill Press.
40. Willer, H., & Kilcher, L. (Eds.). (2010). *The World of Organic Agriculture: Statistics and Emerging Trends 2010*. Bonn, Germany: International Federation of Organic Agriculture Movements (IFOAM); Frick, Switzerland: Research Institute of Organic Agriculture (FiBL).