

# BIODYNAMIC AGRICULTURE: THE JOURNEY FROM KOBERWITZ TO THE WORLD, 1924-1938

John Paull

Institute of Social and Cultural Anthropology, University of Oxford,  
51-53 Banbury Rd, Oxford OX2 6PE, UK.

Telephone: +44 1865 589 113, Email: [john.paull@anthro.ox.ac.uk](mailto:john.paull@anthro.ox.ac.uk)

*“ ... whatever is done in pursuance of Dr. Steiner’s agricultural impulses has its origins in the idea of the farm as an organism” Carl Mirbt (1930, p.93).*

## Abstract

In the last year of his life, the Austrian philosopher Rudolf Steiner challenged the direction and practice of contemporary agriculture. This was an early response to the proliferation of chemical agriculture. Steiner laid the foundation for an alternative agriculture, one that would ‘heal the earth’, in the agriculture course<sup>1</sup>, a series of eight lectures at Koberwitz (now Koberzyce, Poland) in 1924. Steiner set in train a process that led to the development, articulation, and naming of biodynamic agriculture, culminating in the publication of *Bio-Dynamic Farming and Gardening* by Ehrenfried Pfeiffer in 1938.

Keywords: Biodynamic farming, bio-dynamic agriculture, biodynamics, biodynamic gardening, Rudolf Steiner, Ehrenfried Pfeiffer, Koberzyce, Poland, agriculture course, agricultural course, organic agriculture.

## Rudolf Steiner

Rudolf Steiner (1861-1925) was an Austrian philosopher and mystic. He was a leading Goethean scholar of his time. At the age of 22 he had been given the task of editing Goethe’s scientific writings (Wilson, 1985). This was simultaneously, a great challenge, privilege, and opportunity. As Wilson puts it, “in Austria and Germany, a man who has edited Goethe has established his intellectual credentials, and can never thereafter be dismissed as a nonentity” (p.52).

Steiner completed his PhD at the University of Rostock (established 1419) in 1891. His thesis was published the following year as: *Truth and Science*<sup>2</sup> (Hemleben, 1963). In the following few years he published *The Philosophy of Freedom* (1894), and *Goethe’s World Philosophy* (1897). In 1901 Steiner delivered a series of 25 lectures, “Christianity as a fact of mystical experience”, and a 24 lecture series, “From Buddha to Christ” (Hemleben, 1963).

Steiner joined the Theosophical Society in 1902. For the following decade he delivered lecture series throughout Germany, as well as in Holland, Austria, Sweden, Norway, Denmark, Italy, Hungary, and Switzerland. In 1913 he broke with the Theosophists, and founded the Anthroposophical Society (Hemleben, 1963).

Colin Wilson (1985, p.170) has described Steiner as “one of the greatest men of the twentieth century, and it would be impossible to exaggerate the importance of what he had to say”. The editors of *Alchemy of the Everyday*, the catalogue of the retrospective exhibition of Steiner’s work, describe Steiner as “one of the most influential - yet also controversial - reformers of the 20th century” (Kries & Vegesack, 2010, p.16). Steiner was a product of home-schooling (Lachman, 2007), and he was a vegetarian (Hemleben, 1963). In his unfinished autobiography, he wrote that: “I bore a content of spiritual impressions within me. I gave form to these in lectures, articles, and books. What I did was done out of spiritual impulses” (1928, p.316).

Those lectures, articles, and books of Steiner’s run to more than 300 volumes (Turgeniev, 2003). Wilson (1985, p.163) suggests that “the sheer volume of his work ... must run to nearly a million pages”. Yet, as well as prolific, Steiner’s work has been described by biographers variously as: “tough going” and “impenetrable” (Lachman, 2007, p.xvii; p.114); “difficult” (Turgeniev, 2003, p.60); “daunting”, “confusing” and “bewildering” (Wilson, 1985, p.9; p.170); and “irritatingly incomprehensible” (Childs, 1981, p.2). Boeschoten (Afterword in Lissau, 2005, p.174) writes of “the challenge in understanding Rudolf Steiner”.

1 The first appearance of the course text appeared in print in English as the ‘Agriculture Course’ (Steiner, 1929). In 1924 Steiner wrote of it as the “agricultural course” (Steiner, 1924c, p.9).

2 German title: *Wahrheit und Wissenschaft*; published in German.

Whatever the challenges of Steiner-in-print, Steiner-in-person was clearly an entirely different experience. Loftus Hare (1922) attended Steiner's 1922 Oxford Education Conference, and reported his first hand account of listening to Steiner (Box 1).

**Box 1. Loftus Hare's account of Steiner at the 1922 Oxford Education Conference.**

A First Hand Account of Steiner

"When he spoke it was clear that he possessed the qualities of expositor and preacher to a matchless degree. Also, being an artist to his finger tips, it was obvious why he spoke in his own tongue, of which he has an absolute mastery ... a large part of an English audience is unable to understand German ... Ordinarily, it would be something of a strain on an audience to listen to three addresses and three translations covering a period of two and a half hours, but ... Dr. Steiner ... soon holds his listeners under the spell of his power ... there is no artifice of irony, nor rebuke, no criticism, and what is perhaps more remarkable, no appeal ... Dr. Steiner does not shrink from that thoroughgoing formality which gives to his address ... absolute clarity. Words, phrases and formulae ... and rhythmical cascades of eloquence, which sometimes reach the rapidity and force of a torrent" (Hare, 1922, p.212-213).

Russian artist Assya Turgeniev (2003, p.1) worked with Steiner and warned that: "It is a hazardous undertaking to convey a picture of Rudolf Steiner". Biographer Colin Wilson (1985, p.11) confessed that: "Steiner simply infuriated me". Elsewhere he records that Steiner was "charismatic" (p.153), and a man possessed of "immense charm", and "remarkable insights" (p.157).

Who can say why, whether because of the charm, or despite the predilection for the impenetrable turn of phrase, Rudolf Steiner's 'insights' bore some remarkable memetic trait for bearing fruit. These fruits include: the Goetheanum, which is the international headquarters of Anthroposophy in Dornach, Switzerland; the Camphill schools for those with developmental disabilities; Eurythmy dance and movement; Anthroposophic medicine and therapies; the global Waldorf school network; and biodynamic<sup>3</sup> agriculture.

Longtime associate and Steiner biographer, Guenther Wachsmuth (1989, p.547), wrote of a clear path from Goethe to Steiner's new agriculture:

"A straight line through the life of Rudolf Steiner leads from the lonely spiritual research in the 'eighties, through the editing of Goethe's natural-scientific writings, to the development of spiritual research as Anthroposophy, to the unfolding and testing of the natural-scientific work in the School at the Goetheanum, and to the agricultural course in the year 1924 and the 'biological-dynamic agriculture methods'".

## The Agriculture Course, 1924

"Search outside of you for what is within  
And search within for what is outside"  
(Steiner, 1922, in Keyserlingk guest book; cited in von Keyserlingk, 1999, p.viv).

Steiner delivered his Agriculture Course (7-16 June 1924), at Koberwitz in Silesia<sup>4</sup> (Steiner, 1924c, p.9). The published text of Steiner's Agriculture Course was derived from the notes of participants. The official stenographer for the course was Kurt Walther, and his shorthand transcription was supplemented by that of Lili Kolisko, and possibly other participants. Additionally, there are Steiner's own brief preparatory notes (Gardner, 1993). What has been generally, perhaps entirely, overlooked is that Steiner wrote a two-part account of the event for Anthroposophical Movement, which was published immediately after the course (Steiner, 1924b, 1924c). He also delivered a lecture report to colleagues in Dornach (Steiner, 1924a).

Steiner's account of his agriculture course in the Anthroposophical Movement is both lucid and illuminating regarding both the content and his intentions (Box 2). He referred to the event variously as "the agricultural course" (Steiner, 1924b, p.17; 1924c, p.9) and "the Course" (Steiner, 1924b, p.17). He described it as "a course of lectures containing what there is to be said about agriculture from an anthroposophical point of view" (Steiner, 1924c, p.9).

<sup>3</sup> Modern usage often has 'biodynamic' without a hyphen. Where authors have it hyphenated, or variously capitalised, I replicate their usage.

<sup>4</sup> It is now Koberzyce, Poland, and has also been known as Rosslingen; it has a current population of 17,080 (Falling Rain Genomics, 2004). Koberzyce is close to the city of Wrocław (aka Breslau).

## Box 2. Rudolf Steiner's personal commentary on the Agriculture Course.

Steiner's Account of Koberwitz
The Venue: "Koberwitz, near Breslau, where Count Carl Keyserlingk manages a large agricultural estate on model lines ... It seemed only natural to speak about agriculture just there, where those who had assembled for the meetings were surrounded on every hand with the things and processes to which allusion was being made. This gives tone and colour to such a gathering" (Steiner, 1924c, p. 9).
The Attendees: "... a large number of our fellow-members in anthroposophical work had come together at this time ... The larger number of those invited by Count and Countess Keyserlingk to meet at this time in their home at Koberwitz were farmers. But it had been arranged that a smaller number of people, interested but not actually engaged in farming, should also be present" (1924c, p. 9).
The Subject: "My subject was the nature of the products supplied by agriculture and the conditions under which these products grow. The aim of these lectures was to arrive at such practical ideas concerning agriculture as should combine with what has already been gained through practical insight and modern scientific experiment with the spiritually scientific considerations of the subject" (1924c, p. 9).
The Hints: "... the lectures should be considered first of all as hints, which for the present should not be spoken of outside this circle, but looked upon as the foundation for experiments and thus gradually brought into a form suitable for publication" (p.10).

According to Steiner (1924a, p.2), the "Koberwitz estate ... is one of the largest in the region" and comprised 7500 hectares. He reported that there were: "more than a hundred conference guests every day" (1924a, p.1). Attendees included: "A number of the younger members of our Society" (1924b, p.18). Carl Meyer (1929) stated that the number of guests at the Koberwitz course exceeded 100. Ehrenfried Pfeiffer (1899-1961) was not present: "I myself had to forgo attendance at the course, as Dr. Steiner had asked me to stay at home [at Dornach] to help take care of someone who was seriously ill" (Pfeiffer, 1958, p.7).

Steiner emphasised that the course was practical and not prescriptive. He wrote that "things are intended from the beginning for practical application" (Steiner, 1924c, p. 9). He made it clear that the ideas presented should all be tested experimentally under the co-ordination of the Section for Natural Science at the Goetheanum (1924b, 1924c).

Steiner reported that "practical experiments" were already under way by Ernst Stägemann<sup>5</sup> on the basis of a prior conversation that they had had (Steiner, 1924c, p.10). The then director of the Natural Science Section at the Goetheanum, Guenther Wachsmuth (1989), states that Steiner had already given directives to him and Pfeiffer, in 1921 and 1922, for conducting agricultural experiments. Pfeiffer (1958) states that it was in 1923 that Steiner first gave instructions to him and Wachsmuth for making the biodynamic preparations.

Participants at Koberwitz were given to understand that the Agriculture Course was subject to, in current terminology, 'commercial-in-confidence'. It was a version of 'measure twice, cut once' and in the context of developing a new agriculture, Steiner was aware that some start-up investment of time, observation, and experiment was necessary

The seeds planted at the agriculture course came to fruition fourteen years later with the publication of Ehrenfried Pfeiffer's Bio-Dynamic Farming and Gardening, published simultaneously in at least five languages, English, German, Dutch, French, and Italian (1938a, 1938b, 1938c, 1938d, 1938e).

## The Experimental Circle, 1924

An immediate outcome of the Agriculture Course was that:

"... a Farmers' Association ... [was] founded at a meeting of farmers held immediately afterwards ... the Association was declared to be a union of persons attaching themselves to the Natural Science Section of the Goetheanum; its meetings were to be presided over alternately by Count Keyserlingk and Herr Stägemann. The experimental work should be given definite aim and be continuously guided by this Section of the Goetheanum" (Steiner, 1924c, p. 10).

<sup>5</sup> Spelling of this name varies in source material; often rendered as Stegemann.

A year after the course, Erhard Bartsch (1925, p.197) reported that “the Group of Anthroposophical Agriculturists” [sic] were putting Steiner’s “impulses ... into practice”. He referred to “Dr. Steiner’s Course on Agriculture”. He reiterated “our high aims”, and referred to “the opposition which is already showing itself”. Bartsch identified Count Keyserlingk as “the leader of our Experimental Group”.

That same year, the Natural Science Section (NSS, 1925) of the Goetheanum announced in an issue of the Anthroposophical Movement, an “Agricultural Session”, scheduled at Dornach for 7-9 January 1926. Count Keyserlingk was to preside, and that reports on “the first year’s research, results of the first year’s experiments, and further tasks of the experimental group” were to be presented. Lectures scheduled included:

- “The Anthroposophical View of the Earth and its Significance for Agriculture” by Guenther Wachsmuth; and
- “The Anthroposophical View of the Nutrition of Plants, Animals and Man, as it concerns the Agriculturalist” by Ehrenfried Pfeiffer.

A few months later, by the time of the advertised January 1926 agriculture meeting, there appears the first reference to: “the Association of Anthroposophical Farmers” (in Ritter, 1926, p.52). Walter Ritter’s account identifies this January 1926 meeting of farmers as the third such meeting, with Koberwitz (June 1924) being the first, and Berlin, (January 1925) as the second.

Walter Ritter (1926) wrote reverentially of the Koberwitz course as a time “when spiritual treasures of the greatest significance were entrusted to our care by Rudolf Steiner” (p.52). Ritter stated that the farmers strove to be: “worthy pupils” and “guardians of his high spiritual gift, for the well being of the Earth and her creatures” (p.54). He reported the establishment of “Experimental Centres” and that “the work being done by them ... justifies our hopes for further progress” (p.52).

Of Dr. Lili Kolisko, Ritter (1926) reported that:

“ ... she showed us ... the ideal of the anthroposophical investigator of the future: the synthesis of Occultist, Mystic and Scholar, - these three types of investigator, which have developed successively in the course of human evolution up to the present time” (p.53).

Ritter reported that Ehrenfried Pfeiffer “brought to our consciousness the fact that the farmer ... seeks to become a healer for Earth, plant and animal”, and “can finally become, by this activity, a healer of men” (p.53).

Already in Ritter’s 1926 account there is a recognition that what was proposed was a clash of cultures. He wrote that “this knowledge” would “give us the force to begin the fight” against the “greediness” of agri-business, which he lamented was “turning the individual farms into mere mechanical ‘means of production’ and the whole economic life into a ‘business” (p.52). Ehrenfried Pfeiffer commented on this clash of agri-philosophies: “At the time of the Agriculture Course the bio-dynamic direction of thought, and agricultural chemistry, stood opposed (Pfeiffer, 1956b, p.6).

Ritter (1926, p.52) lauded the righteousness of the anthroposophic agricultural quest, and he foresaw challenges ahead: “For great and sacred are the tasks imposed upon us, and mighty is the foe and treacherous are his weapons”. In the meantime, gardening lessons were becoming an entrenched facet of the Waldorf School curriculum (FWS, 1926), and were, thereby, enjoining anthroposophic thoughts on both education and land care.

Later in 1926, at the Goetheanum, “a name more or less unpronounceable for English readers” according to Wilson (1985, p.145), the Section for Natural Science issued its first Year Book, Gää-Sophia. That first year book included two articles under the heading of “Agriculture”:

- “Agriculture in the sense of Rudolf Steiner”, and
- “The Development of Agriculture through Anthroposophy” (Wachsmuth, 1926, p.137).

What is clear is that, two years on from the Koberwitz course, agriculture’s place within anthroposophy was still being explored, and a distinctive anthroposophical agriculture was yet to be defined or named.

Adalbert Keyserlingk, on the death of his father, Count Carl Keyserlingk, wrote of the hostility that his father had endured pursuing his anthroposophic agricultural goals:

“In the years that followed the course, the firms IG-Farben and Kali-Syndikat had grown more and more hostile towards Count Keyserlingk ... He died suddenly at the end of December 1928 when

on his way to a conference in Dornach, one might say from a broken heart because of the way things were going" (Keyserlingk, 1993, p.13-14).

At that time, IG-Farben and Kali-Syndikat were leading, as well as commercially aggressive, German fertilizer companies (Lamer, 1957).

In a requiem to "Count Carl von Keyserlingk", Meyer (1929, p.38) wrote of the Count, and of another recently departed Anthroposophist, that:

"... the heart of each had broken as day by day they must suffer the pain of all that, out of the spirit of our times, must stand opposed to the ideals they set before them".

Keyserlingk had been the driving force behind the agriculture course (Vreede, 1929). He was described by Vreede as "one to whom farming itself was a priestly office" (p.38). According to Meyer (1929, p.29): "Count Keyserlingk had realised the dire need for a complete revival of cultural methods".

By 1929, the Natural Science Section of the Goetheanum could report the positive news that the work of translating Steiner's "hints" was now a global enterprise:

"Dr. Steiner's new methods for Agriculture have been investigated and applied on a practical and on an experimental basis. The Experimental Circle now has its stations in most countries of Europe and in Asia, Australia, New Zealand, America and Africa. Agricultural Conferences have been arranged in Dornach and elsewhere" (Steffen, Steiner, Wegman, Vreede & Wachsmuth, 1929, p.19).

## **Biological-Dynamic Methods, 1928**

Ehrenfried Pfeiffer refers to "Dr. Steiner's biological-dynamic methods" (1928, p.34) and this appears to be the earliest characterisation of anthroposophic agriculture as "biological-dynamic". The term is used once only in that article. Pfeiffer reports that: "the indications given by Dr. Steiner have been utilised with the utmost success". Pfeiffer's account is a report of a meeting of "practical agriculturists", who "met at Marienstein<sup>6</sup>, from December 10th to 12th, 1927", at "Herr Stegemann's delightful house ... for the discussion which dealt in particular with experiments made according to Dr. Steiner's biological-dynamic methods" (p.34).

Pfeiffer has elsewhere stated that: "The name Bio-Dynamic Method of Agriculture was not given by Rudolf Steiner but arose from the circle of those at the start who concerned themselves with the practical application of this new direction of thought" (Pfeiffer, 1956b, p.5). The December 1927 Marienstein (Germany) meeting is a candidate for the origin of the term 'biological-dynamic'.

Six months after the Marienstein 1927 meeting, Baron Senfft von Pilsach (1928, p.267) declared a new development: "We are at a turning point". He reported that farmers: "have begun to experiment with our biological-dynamic methods on their own estates, though they are not members of the Anthroposophical Society".

It was this Marienstein Farmers' Conference of 8-10 July 1928 that signalled the decoupling of the evolving biological-dynamic farming methodology from its esoteric anthroposophic origins. It also identified a growing consumer awareness of differentiated produce. Von Pilsach (1928, p.268) recorded that:

"The non-anthroposophical farmers were evidently much impressed by the conference, and encouraged to go on working with us. They will now take their share in meeting the urgent needs of the consumer for the improvement of the quality of our foodstuffs".

Pfeiffer had already reported that: "in the course of the year 1927 it was necessary to found a company, which has undertaken the collection, preparation and distribution of the land produce obtained by biological methods" (Pfeiffer, 1928, p.34). Bartsch referred to "the work of the Selling Department, founded September 1927, by members of our Experimental Circle" (1929, p.58).

Bartsch (1929) refers to: "our biological-dynamic agricultural methods" (p.57); "anthroposophical farmers" (p.56); and "out-side farmers" (p.58). Of this latter group, he relates that: "it was also here rather difficult to explain to the interested farmers the action of etheric upbuilding forces in cosmos, earth and man" (p.57). Despite such challenges, and reported "Humorous incidents" (p.57), Bartsch could nevertheless report, of "our new agricultural methods" (p.57), that their Steinerian anthroposophical underpinnings were being successfully decoupled, and the new agriculture methods were being formulated in their own sovereignty.

---

<sup>6</sup> In Germany, east of Stuttgart and north of Munich.

As Pfeiffer (1956b, p.5) later declared, the new methods: “are for all, for all farmers”, and they “can be employed by every farmer”. Contemporary newspaper accounts of lectures to farmers referred to: “new biological-dynamic agricultural methods” (*Deutsche Bodenseezeitung*, 1928b, p.397). The newspaper correctly identified that here was something that was new and potentially revolutionary:

“Though the title ‘Biological-dynamic methods’ was somewhat new to the majority of the audience, the lecturer’s remarks were all the more startling inasmuch as the possibility of their realisation indicates a revolution in the agricultural world” (*Deutsche Bodenseezeitung*, 1928a, p.396).

## **Anthroposophic Agricultural Foundation, UK, 1928**

In London, the Anthroposophical Agricultural Foundation (AAF) was founded on 24 November 1928 (Pease, 1929). The 1928 annual report of the Anthroposophical Society in Great Britain reported the important news that: “Dr. Steiner’s Agricultural Course has been translated into English” (Executive Council, 1929, p.31).

The translation of the Koberwitz course was by George Kaufmann and was dated 1929 (Steiner, 1929). It was issued as a typescript document, printed on one side only. Copies were individually inscribed with a copy number and the name of the recipient. It was titled “Agriculture Course”. It stated that it was: “Issued on behalf of the Natural Science Section of the Goetheanum”. The title page stated: “Printed for private circulation only. This copy is intended for the sole use of the person above-named” (Steiner, 1929, title page).

At the AAF’s Bradford Weekend Conference, 15-17 February 1929, Ehrenfried Pfeiffer lectured in Britain - possibly for the first time - and on the work of the Research Laboratory at the Goetheanum (London Headquarters, 1929, p.27). The 1928 annual report also recorded that: “Dr. Carl Alexander Mirbt, a German trained agriculturist ... is coming to England as an expert assistant and adviser in the Anthroposophical farming methods” (Executive Council, 1929, p.32). That 1929 entry may be the earliest usage of the term ‘Anthroposophical farming’ - it was a term that did not gain any wide currency and was superseded by ‘biodynamic’ farming.

The first Annual Report of the AAF recorded that: “Experimental stations are developing in Yorkshire, Lancashire, Northumberland, Hertfordshire and Kent” (Executive Council, 1929, p.32).

## **‘Truly, The Farm Is A Living Organism’**

In delivering his Agriculture Course Rudolf Steiner did not use any of the terms: ‘organic’ farming, ‘biodynamic’ farming, or ‘biological-dynamic’ farming. All these descriptors came later. It took time for Steiner’s agricultural ‘hints’ to evolve into a coherent new agriculture.

Steiner had urged experimentation and patience:

“These guiding lines are only the foundation for manifold experiments, which will extend, no doubt, over a long period of time. Splendid results will emerge if you work out in thorough-going tests and experiments what I have given here” (Steiner, 1929, lecture VIII, p.18).

Woven throughout the days and lectures of the Agriculture Course is the recurring concept of ‘organism’. A central concept for biodynamics is Steiner’s declaration that: “Truly, the farm is a living organism” (Steiner, 1929, lecture VIII, p.7). In the 1938 translation this was rendered as: “The farm is truly an organism” (Steiner, 1938, p.85). The 1993 translation rendered this foundational concept as: “A farm of this kind is truly a living organism” (Steiner, 1993). This was later taken up as the nominative motif for ‘organic farming’ by Northbourne (1940) in *Look to the Land*.

Steiner instructed the audience gathered at Koberwitz that:

“ ... if we wish to do things in a proper and natural way, we need to have this ideal concept of the necessary self-containedness of any farm” (Steiner, 1929, lecture II, p.1).

Steiner was advocating an attitude of approaching a farm holistically:

“A farm is true to its essential nature, in the best sense of the word, if it is conceived as a kind of individual entity in itself - a self-contained individuality. Every farm should approximate to this condition ... whatever you need for agricultural production, you should try to possess it within the farm itself” (Steiner, 1929, lecture II, p.1).

Guenther Wachsmuth, writing in the first English rendition of the Agriculture Course, declared that these were: "Impulses of far-reaching importance for the future" (Wachsmuth, 1929, p.2). He foresaw that: "A new foundation for Agriculture is therefore undoubtedly a turning-point of historic import" (p.3).

At the close of the course, Steiner's instruction for attendees was that the basis for the new Anthroposophic agriculture needed to be based on experiment not dogma, that the new agriculture was to rely on the practical demonstration of results, and that the course was effectively commercial-in-confidence until there were proven replicable results (Box 3).

With these provisos in place, Steiner shared his macro view of this project: "What we have here been doing is a piece of real hard work, work which is tending to great and fruitful results for all humanity" (1929, lecture VIII, p.19).

### Box 3. Steiner's instructions at the final Agriculture Course lecture.

Steiner's Three Injunctions to Agriculture Course Attendees
<b>Experiment not Dogma:</b> "... enhance it and develop it by actual experiments and tests. The farmers' society - the 'Experimental Circle' that has been formed - will fix the point of time when in its judgement the tests and experiments are far enough advanced to allow these things to be published" (Steiner, 1929, lecture VIII, p.19).
<b>Demonstrate:</b> "As to the farmers - well, if they hear of these things from a fellow-farmer, they will say, 'What a pity he has suddenly gone crazy!' ... But eventually when he sees a really good result, he will not feel a very easy conscience in rejecting it outright" (Steiner, 1929, lecture VIII, p.19).
<b>Commercial-in-Confidence:</b> "If on the other hand the farmers hear of these things from unauthorised persons - from persons who are merely interested - then indeed, 'the game is up.' If that were to happen, the whole thing would be discredited, its influence would be undermined. Therefore it is most necessary: those of our friends who have only been allowed to take part owing to their general interest and who are not in the Agricultural Circle, must exercise the necessary self-constraint. They must keep it to themselves and not go carrying it in all directions as people are so fond of doing with anthroposophical things" (Steiner, 1929, lecture VIII, p.19).

## Rendering The Agriculture Course Into English, 1929

George Kaufmann (1894-1963) was uniquely qualified and an inspired choice to render Steiner's Agriculture Course into English. He was by all accounts a remarkable linguist. He was born in Poland of an Australian father, George von Kaufmann, and an English mother, Kate Adams. The family had moved from Melbourne to Poland just before George was born. His schooling was in England (Adams, 1958; Whicher, 1977).

Kaufmann was a Cambridge University graduate in mathematics and chemistry. He had a history of championing unpopular ideas. During WWI in Britain he "was in prison twice as a conscientious objector" and he went on a hunger strike (Whicher, 1977, p.16).

Kaufmann travelled to Dornach and met Steiner in 1919. He was in Dornach when the First Goetheanum building was opened in 1920. He was first called upon to translate Steiner's lectures into English at the 1921 Christmas Teacher's Course at the Goetheanum. He had spent "a great deal of his time" with Steiner in Dornach (Whicher, 1977, p.20). He was there, as was Steiner, on the night of New Year's Eve 1922/23 when the first Goetheanum building burned to the ground (Whicher, 1977).

Kaufmann has given his own account of translating Steiner (Box 4). Olive Whicher (1977, p.20) praised Kaufmann's extemporaneous rendering into English of Steiner's lectures. Steiner paid tribute to Kaufmann at the concluding address of the International Summer School, 22 August 1924, in Torquay (Box 4).

George Kaufmann made the Agriculture Course accessible to an English-speaking audience. The first release in English was in 1929 (Steiner, 1929). That Kaufmann's credentials were impeccable for rendering a veridical account is particularly important given that Steiner's work was in German, that the written account was assembled from the notes of participants, and that Steiner makes for somewhat tortuous reading at times.

The agriculture course was delivered once only, in German, in an obscure Polish village, and to an audience of about 100 people. Steiner's death early the following year on 30 March 1925 at Dornach, Switzerland

(Collison, 1925) meant that the opportunity for consulting, and clarifications regarding any rendition or translation, were dashed. Kaufmann's previous experience of translating Steiner from 1921 to 1925 at Dornach, London, Oxford, Kings Langley, Stratford, Ilkley, Bingley, Penmaenmawr, Tintagel, and Torquay (Villeneuve, 2004a, 2004b), stood him in good stead for rendering an account of Steiner's anthroposophic perspectives on agriculture into English.

During WWII Kaufmann volunteered for non-combatant duties. He worked briefly as Captain Kaufmann as an interpreter at a British POW camp. Kaufmann was British, under the provisions prevailing at the time, by dint of his father being Australian, however, bearing an overtly Germanic name was not an asset in WWII Britain. These circumstances led to him resigning his commission as well as adopting his mother's maiden name of 'Adams' from 1940 onwards. He spent the rest of the WWII years in London as a monitor for the BBC, and learned "several Slavonic languages" in that period (Adams, 1958; Whicher, 1977, p.29).

#### **Box 4. George Kaufmann was the first translator of Steiner's Agriculture Course.**

##### **George Kaufmann: Translator to Rudolf Steiner**

Olive Whicher on Kaufmann: "... he would stand up, so young a man, at intervals in a lecture divided into three parts, and repeat again in beautiful English and with utmost devotion, almost word for word what Rudolf Steiner had just spoken in German in a lecture of vast spiritual content. He made a few pictorial notes of his own creation and for the rest relied on his prodigious memory and spoke with great vitality and confidence. In all he interpreted about 110 lectures, besides many conferences and conversations. For him and for those present it was an unforgettable experience, and Rudolf Steiner never failed to express his great gratitude" (Whicher, 1977, p.20).

George Kaufmann on Kaufmann: "Dr. Steiner would nearly always divide the lecture into three parts, speaking for 20 to 25 minutes at a time. The lecture was then completed in three stages ... I was rather shy and diffident in Dr. Steiner's presence ... But when interpreting his lectures I was never shy. I went 'all out', there was adventure in it, and all the time, whether he were speaking or listening, I felt quiet encouragement in his presence" (Adams, 1958, p.11-12).

Rudolf Steiner on Kaufmann: "Most especially I thank our dear friend Kaufmann, who has been so visible beside me all the time in making sure in the most self-effacing and accurate way that what I have had to say could be adequately understood. So I thank Mr Kaufmann very specially this evening" (22 August, Torquay, 1922, in Steiner, 1998, p.280).

The Agriculture Course was republished in 1958, with 'Kaufmann' erased and stating: "translated by George Adams" (Steiner, 1958). A fresh rendering of the agriculture course translated into English by Catherine Creeger and Malcolm Gardner appeared in 1993 (Steiner, 1993) more than six decades after Kaufmann's original. Both these translations remain currently in print.

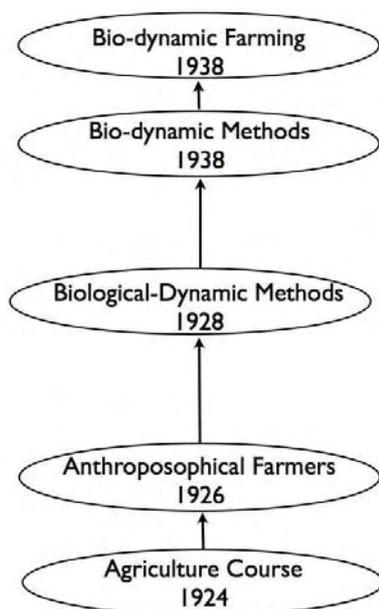
### **Evolving Bio-Dynamic**

Unlike 'organic farming', which appeared fully formed in *Look to the Land* and within a coherent manifesto (Paull, 2006), 'bio-dynamic farming' evolved over 14 years. Although Rudolf Steiner is credited as the "originator" of bio-dynamic agriculture (Pfeiffer, 1938a, p.vi), the term 'bio-dynamic' would have been entirely unfamiliar to him. The first English translation of Rudolf Steiner's Agriculture Course of 1924, included, in the Editor's Preface, the freshly coined phrase: "the 'biological-dynamic' methods" (Wachsmuth, 1929, p.F/4). Two pamphlets authored by Pfeiffer in a series: "The Biological-Dynamic Method of Rudolf Steiner" reflect the increasing adoption of the term 'biological-dynamic' (1934a, 1934b)<sup>7</sup>.

After a decade of use 'biological-dynamic' was contracted to 'bio-dynamic', with this new contraction appearing in Pfeiffer's 1938 publications: *Practical Guide to the Use of the Bio-Dynamic Preparations* (1938f) (Plate 1); and *Bio-dynamic Farming and Gardening* (1938a) (Plate 1; Figure 1).

<sup>7</sup> Note: these works are undated, and library catalogues vary in the dates they attribute to these publications. I attribute the date 1934 to them both on the basis that they are companion publications as evidenced by their common printer, Morrison and Gibb Ltd., and by their shared physical attributes including matching size, binding, cover, paper and font. *New Methods* (Pfeiffer, 1934b) was based on Pfeiffer's lecture presented in London on 31 May 1934 (p.2), and Pfeiffer himself dates this particular publication as '1934' in a later bibliography (Pfeiffer, 1938a, p.218).

The year after Pfeiffer's two biological-dynamic pamphlets of 1934, Pfeiffer's first book in English appeared: *Short Practical Instructions in the Use of the Biological-Dynamic Methods of Agriculture* (1935). Three years later a "Revised Edition" appeared (1938f) (Plate 1). These books are a codification and formulation of what had been learned, by trial and experiment, from "twelve years of practical work" (1935, p.10); and, for the revised edition, from "fifteen years of practical work" (1938f, p. 8).



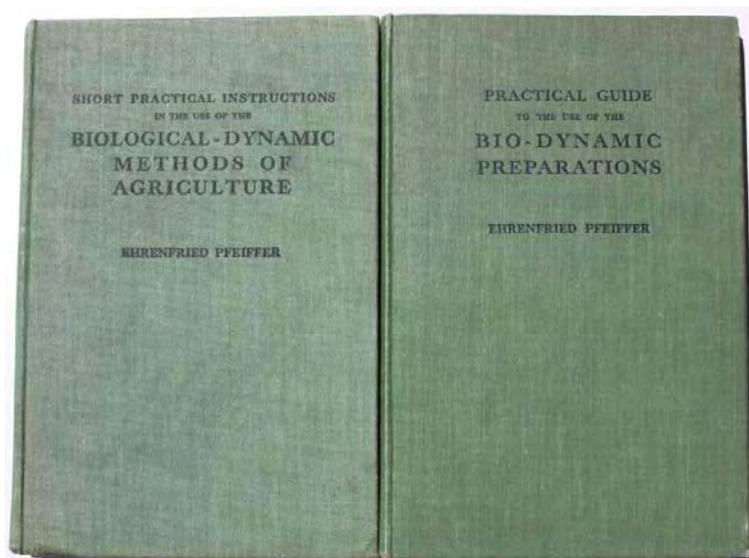
**Figure 1. Evolution from Agriculture Course to Bio-Dynamic Farming.**

A comparison of these two books (Box 5) reveals a growing confidence, openness, and the evolution of the terminology:

- the name: "Biological-Dynamic" (1935) is shortened to "Bio-Dynamic" (1938);
- the term: "Anthroposophical Farmers and Gardeners" is scrapped in the revised edition; <sup>7</sup>
- the term: "Methods" becomes "Method";
- the instructions: "are not available to the public" is softened to: "are not written for";
- the promise: "can lead to full results" is strengthened to: "cannot fail of success".

Pfeiffer's (1938a, 1938f) use of the term 'bio-dynamic' in two book titles in 1938 are the first use of the contraction 'bio-dynamic' that I have identified. Pfeiffer's book *Bio-Dynamic Farming and Gardening* (1938a) appears to be the first usage to move beyond 'method' and/or 'methods' to employ the term 'bio-dynamic' directly as a qualifier of 'farming', and added to that was 'gardening' as well.

The 1938 book *Bio-Dynamic Farming and Gardening* appeared in at least four other languages. The German language edition (1938c) uses the term *Biologisch-Dynamische*, with the preface signed "Ehrenfried Pfeiffer, Dornach, März 1937" (p.5). The Italian language edition (1938e) uses the term *biologico-dinamico*, and the Prefazione is dated "Dicembre 1937" (p.17). The Dutch edition (1938b) uses the term *Biologisch-Dynamische* with the preface dated "Maart 1937" (p.4). The French edition (1938d) carries the sub-title *Le principe bio-dynamique dans la nature*; the Introduction is signed 'E.P.' but is undated. In the English language edition 'biological-dynamic' takes the shortened form of 'bio-dynamic' and is used as an adjective to differentiate a style of farming and gardening.



**Plate 1. Ehrenfried Pfeiffer's 1935 and 1938 publications show the evolution from 'Biological Dynamic' to Bio-Dynamic' (Photo: J. Paull).**

The English language edition of Bio-Dynamic Farming and Gardening is a translation by Frederick Heckel (Pfeiffer, 1938a, p.vi). The Preface, by Pfeiffer, is dated and placed as "Dornach, February 1938" (p.vii). The dates of the five language editions indicate that the short-form 'bio-dynamic' was developed between December 1937 and February 1938, that is, between signing off the Italian version and signing off the English version.

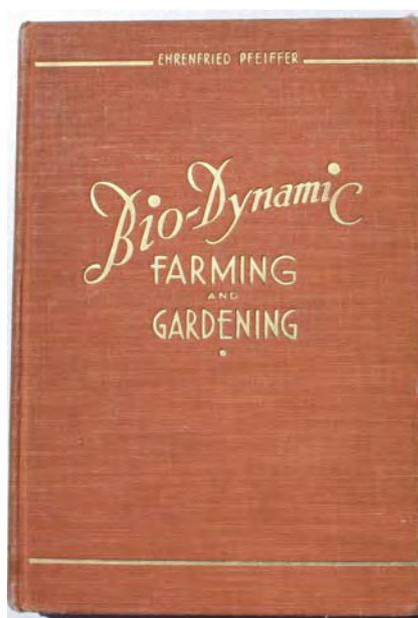
**Box 5. The transition from Biological-Dynamic (Pfeiffer, 1935) to Bio-Dynamic (Pfeiffer, 1938f) [underlining added].**

Pfeiffer's Biological-Dynamic (1935) to Bio-Dynamic (1938)
<p>Date: October 1935.</p> <p>Title: Short Practical Instructions in the Use of the <u>Biological-Dynamic</u> Methods of Agriculture.</p> <p>Title page legend: "Written at the request of the General Circle of Anthroposophical Farmers and Gardeners".</p> <p>End note: "These practical instructions are not available to the public" (p.65).</p> <p>Contact details: Bureau for the <u>Biological-Dynamic</u> Methods of Farming (Switzerland).</p> <p>Opening sentences: "The practical application of the <u>biological-dynamic</u> method of agriculture consists in carrying out a series of measures which can lead to full results if exact and conscientious care is give. It is true that these methods demand a finely perceptive penetration into the life of all growing things".</p>
<p>Date: 1938.</p> <p>Title: Practical Instructions in the Use of the <u>Bio-Dynamic</u> Preparations.</p> <p>Title page legend: Revised Edition.</p> <p>End note: These practical instructions are not intended for the general public (p.64).</p> <p>Contact details: Bureau for the <u>Bio-Dynamic</u> Method of Agriculture (Switzerland).</p> <p>Opening sentences: The <u>bio-dynamic</u> method of husbandry requires for its practical application the use of many measures, the careful and conscientious application of which cannot fail of success. It is true that these measures require close observation and attention on the part of the husbandman.</p>

Pfeiffer's 1938 Bio-Dynamic Farming and Gardening represented the fruits of the practice, the experiments, and the developments of Steiner's 1924 'hints' for a new direction for agriculture. The 240 page book, available to the public, was the reification of Steiner's initial injunction to test, experiment, improve and develop on his initial "hints" revealed to Anthroposophically-inclined farmers and others, and to develop them to a stage suitable for publication (Steiner, 1924b, 1924c).

Pfeiffer's book Bio-Dynamic Farming and Gardening was an important milestone. Here was a popular book, readable, readily available, practical, and although philosophical, neither mystical nor mystifying. The book crystallized a decade and a half of discussions, practical work and experimentation by Anthroposophists and others in many countries. It was an enterprise that had been co-ordinated from the Natural Science Section of the Goetheanum, Dornach, Switzerland. The book represented the culmination of the 'homework' set Anthroposophists by Rudolf Steiner a decade and a half previously, and it was now the public and international proclamation of the envisaged new agriculture.

Bio-Dynamic Farming and Gardening clearly and unequivocally adopted bio-dynamic as a qualifier of both farming and gardening, thereby eliminating the previously intervening verbiage 'methods of', as in 'Bio-Dynamic methods of Agriculture'. In Bio-Dynamic Farming and Gardening, Anthroposophy only makes an appearance as the publisher, "Anthroposophic Press, New York", on the title and verso pages. Steiner appears as "Rudolf Steiner Publishing Co., London" on the title page. The book was co-published by these two publishers. In the Preface, Pfeiffer paid the following tribute: "Its originator, Rudolf Steiner, gave the basis on which this book rests" (Pfeiffer, 1938a, p.vi) (Plate 2).



**Plate 2. Pfeiffer's 1938 Bio-Dynamic Farming and Gardening (Photo: J. Paull).**

The first English language edition stated: "Translated from the German by Fred Heckel" (1938a, p. 1). The second edition, two years later, acknowledged "Mr. Frederick Heckel" as the "Secretary of the Bio-dynamic Farmers and Gardeners Association ... Spring Valley, New York" (1940, p.ix), but the title page now omitted any reference to 'translated' or to 'German'. At this point, Britain and Germany, although not the USA, were at war.

The release of Bio-Dynamic Farming and Gardening squared the agriculture of the Anthroposophists with the "Statutes of the Anthroposophical Society". The eighth statute states that: "All publications of the Society will be open to the public" (Steiner et al., 1923, p.3). On the other hand there had been Steiner's injunction:

"No kind of communication was to be made about the contents of the [agriculture] Course until such time as the members of the Association felt impelled to speak out of the results of their own experimental work" (Steiner, 1924b, p.17).

Pfeiffer's role could be characterised as having carried forward Anthroposophical thoughts of agriculture from mystery to muck. Pfeiffer had steered the development of Steiner's new agriculture through to the point where it was now sufficiently coherent and developed in both theory and practice to be offered to the public, and to be differentiated in the agri-market with its own distinctive 'branding'.

In chapter one of *Bio-Dynamic Farming and Gardening*, Pfeiffer declared that: “The ways and means for the regeneration of the farm can be found only in a comprehensive view of the earth as an ‘organism’, as a living entity” (1938a, p.5). Chapter four is titled: “The Soil, A Living Organism” (1938a, p.ix). That chapter concludes with the declaration that “the cultivated field is a living organism, a living entity in the totality of its processes” (p.35).

This theme of the farm-as-organism was not new to members of the UK’s Anthroposophical Agricultural Foundation. Their journal *Anthroposophical Agricultural Foundation Notes and Correspondence* had presented articles making this point, but to the very restricted audience of members. Articles that the Foundation had published in their journal included:

- “Farm as a Living Organism” (Mirbt & Pease, 1933, p.216);
- “Poultry in the Farm Organism” (Wood, 1935, p.262); and
- “The Farm - Organism” (Wood, 1936, p.315).

Herbert Koepf states that *Bio-Dynamic Farming and Gardening* “was to become the textbook on the biodynamic method in agriculture” (1991, p.14). The book was subsequently republished, in 1947, by Faber and Faber, London with the original title and subtitle interchanged, and appeared as: *Soil Fertility, Renewal & Preservation: Biodynamic Farming and Gardening* (Pfeiffer, 1947). Publishing with Faber took Pfeiffer’s book into the agri-book mainstream, and provided a distribution network far beyond what any Anthroposophical publisher, then or since, could achieve.

Faber & Faber were at the time a major mainstream UK agri-book publisher. Their stable of agrarian writers included: George Stapleton (1935); Eve Balfour (1943); Rolf Gardiner (1943); Viscount Lymington (1943); Albert Howard (1945); and Louise Howard (1947). Publishing with Faber, and in this company of writers, was a coup for Pfeiffer personally and biodynamics generally.

The 1947 Faber edition, *Soil Fertility, Renewal & Preservation*, added Northbourne’s *Look to the Land* (1940) into the ‘Bibliography’ as an asterisked entry: “Publications bearing especially on our subject are marked with an asterix” [sic] (Pfeiffer, 1947). The most recent English language edition, published in 1983 with an Introduction by Eve Balfour (1899-1990), has retained the title inversion (Pfeiffer, 1983). Koepf reports that there have been at least six German editions (1991, p.14).

Of biodynamics, Pfeiffer put “the time of creation of the method” as “during the years 1922-24 and afterwards during the years of experimental and empirical trials (from 1924 to about 1930)” (Pfeiffer, 1956a, p.3). These events in Switzerland, Poland, and Germany, initiated the foundational stirrings of “a world-embracing agricultural movement” (Pfeiffer, 1956b, p.3).

Pfeiffer had moved to Dornach at the age of 21 years in 1920 (Selawry, 1992, p.8). He was in Dornach during the final six years of Rudolf Steiner’s life, his first duties being working on the design and installation of stage lighting (Selawry, 1992). His earliest book is a co-authored handbook on the installation and maintenance of high voltage electrical systems (von Gaisberg, Lux, Michalke & Pfeiffer, 1927). Working in the Natural Science Section of the Goetheanum, he had created the vehicle to carry biodynamics to a broad audience.

In the USA the first Anthroposophical Summer School was held at Threefold Farm, Spring Valley, New York State, 8-23 July 1933. This had been Pfeiffer’s first visit to the US, and he delivered two lectures on the topic: “Dr. Steiner’s Biologic Dynamic Agricultural Methods Practically Applied in Farming” [sic] (Day, 2008). Pfeiffer founded the “North American Bio-Dynamic Farming and Gardening Association” in 1938 (Lorand, 2006, p.36).

## **Concluding Remarks**

Rudolf Steiner’s agriculture course of 1924 ‘came of age’ with the publication of Ehrenfried Pfeiffer’s book, *Bio-Dynamic Farming and Gardening*, in 1938. This book was the culmination of a fourteen year gestation. Rudolf Steiner had shared his thoughts and ideas, on how Anthroposophy could inform farming practice, in a ten day course of lectures and discussions in the small and obscure town in Koberwitz in Silesia, in what is now Poland, to an audience of about 100 attendees.

Steiner had urged that his agricultural hints should be tested experimentally, that the efficacy of proven methods should be both demonstrable and demonstrated, and eventually should be published. Pfeiffer’s book was the reification of these three injunctions. *Bio-Dynamic Farming and Gardening* was contemporaneously published in German, Italian, French, and Dutch editions, as well as, in both London

and New York, in English. Pfeiffer's book brought the practices, philosophy, and nomenclature of this 'alternative' agriculture to a worldwide audience.

Pfeiffer was a credible, dedicated and articulate advocate for biodynamics as a viable and differentiated form of agriculture. Biodynamic agriculture had evolved out of Steiner's course, but Steiner had died in 1925 and so he witnessed none of this fruit of his agriculture course.

In the period of evolution, from the Steiner course in 1924, to the Pfeiffer book in 1938, biodynamic agriculture had been clearly differentiated from chemical farming, and had developed its independence from Anthroposophy, while maintaining its anthroposophic association, in particular via the Goetheanum, in Dornach, Switzerland.

Rudolf Steiner was a prime exemplar of the dictum, attributed to Goethe (Murray, 1951, p.282), that: "Whatever you can do, or dream you can, begin it. Boldness has genius, power and magic in it". Within the family of organic agricultural practices, biodynamic farming continues to grow and evolve, to successfully contribute to the organic agriculture discourse, and to maintain its distinct identity.

## References

- Adams, G. (1958). Rudolf Steiner in England. In A. Freeman & C. Waterman (Eds.). *Rudolf Steiner: Recollections by Some of his Pupils* (pp. 1-21). London: The Golden Blade.
- Balfour, E. B. (1943). *The Living Soil: Evidence of the importance to human health of soil vitality, with special reference to post-war planning* (7th edn. 1947). London: Faber and Faber.
- Barnes, H. (1997). *A Life for the Spirit: Rudolf Steiner in the Crosscurrents of Our Time*. Hudson, NY: Anthroposophic Press.
- Bartsch, E. (1925). In Memory of the Agricultural Course. *Anthroposophical Movement*, 2(24), 197.
- Bartsch, E. (1929). On the work done by the Experimental Circle of Agriculturalists in Germany. *Anthroposophical Movement*, 6(7), 56-58.
- Collison, H. (1925). Rudolf Steiner. X a.m. 30th March, 1925, R.I.P. *Anthroposophical Movement*, 2(13), 101.
- Day, B. (2008). Ehrenfried Pfeiffer, the Threefold Community, and the Birth of Biodynamics in America. *Biodynamics*(Fall), 41-43.
- Deutsche Bodenseezeitung. (1928a). [Reprint from] *Deutsche Bodenseezeitung*, October 27th. *Anthroposophical Movement*, 5(50), 396.
- Deutsche Bodenseezeitung. (1928b). [Reprint from] *Deutsche Bodenseezeitung*, October 31st. *Anthroposophical Movement*, 5(50), 396-397.
- Executive Council. (1929). *Anthroposophical Society in Great Britain, Annual Report for the Year 1928*. *Anthroposophical Movement*, 6(4A), 29-35.
- Falling Rain Genomics. (2004). Kobierzyce, Poland Page: available at: <[www.fallingrain.com](http://www.fallingrain.com)>.
- FWS. (1926). *The Free Waldorf School*. *Anthroposophical Movement*, 3(6), 41-43.
- Gardiner, R. (1943). *England Herself: Ventures in Rural Restoration*. London: Faber and Faber Ltd.
- Gardner, M. (1993). Editorial Notes. In M. Gardner, *Spiritual Foundations for the Renewal of Agriculture by Rudolf Steiner* (pp. 263-282). Kimberton, PA: Bio-Dynamic Farming and Gardening Association.
- Hare, W. L. (1922). An Impression of Dr Rudolf Steiner. In *A Man Before Others: Rudolf Steiner Remembered* (1993; pp. 211-213; reprinted from *Occult Review*, October 1922). Bristol: Rudolf Steiner Press.
- Hemleben, J. (1963). *Rudolf Steiner: A Documentary Biography* (1975, first English language edition; Leo Twyman trans). East Grinstead, Sussex: Henry Goulden.
- Howard, A., & Howard, L. E. (1945). *Farming and Gardening for Health and Disease*. London: Faber and Faber.
- Howard, L. E. (1947). *The Earth's Green Carpet*. London: Faber and Faber.
- Keyserlingk, A. C. (1993). *Developing Biodynamic Agriculture: Reflections on Early Research* (1999 First English Edition; trans. A. R. Meuss). London: Temple Lodge.
- Koepf, H. H. (1991). *Ehrenfried Pfeiffer: Pioneer in Agriculture and Natural Sciences*. Kimberton, USA: Bio-Dynamic Farming and Gardening Association Inc.
- Kries, M., & Vegesack, A. v. (Eds.). (2010). *Rudolf Steiner - Alchemy of the Everyday*, English. Weil am Rhein: Vitra Design Museum.
- Lachman, G. (2007). *Rudolf Steiner: An Introduction to His Life and Work*. New York: Jeremy P.Tarcher/Penguin.
- Lamer, M. (1957). *The World Fertilizer Economy*. Stanford, CA: Stanford University Press.
- Lissau, R. (2005). *Rudolf Steiner: His life, work, inner path and social initiatives*. Stroud, Gloucestershire, UK: Hawthorn Press.
- London Headquarters. (1929). *Anthroposophical Society in Great Britain: Notices to Members*. *Anthroposophical Movement*, 6(3&4), 26-27.

- Lorand, A. (2006). *Biodynamics Between Myth and Reality*. In J. Peterson, *Former John's Cookbook: The Real Dirt on Vegetables* (pp. 34-39). Layton, UT: Gibbs Smith Publishers.
- Lymington, Viscount (1943). *Alternative to Death: The Relationship between Soil, Family and Community*. London: Faber and Faber.
- Meyer, C. (1929). *Requiem*. *Anthroposophical Movement*, 6(5), 38-40.
- Mirbt, C. A. (1930). *The Application of the Biological Dynamic Methods in Gardens*. *Anthroposophical Movement*, 7(12), 93-95.
- Mirbt, C. A., & Pease, M. (1933). *Farm as a Living Organism*. *Huby Experiments*. *Anthroposophical Methods on Animals and Produce*. *Anthroposophical Agricultural Foundation Notes and Correspondence*, 3(8), 216-217.
- Murray, W. H. (1951). *The Scottish Himalayan Expedition*. London: J. M. Dent & Sons.
- Northbourne, Lord. (1940). *Look to the Land*. London: Dent.
- NSS. (1925). *Natural Science Section: Agricultural Session at Dornach, 7th to 10th January, 1926*. *Anthroposophical Movement*, 2(50), 406.
- Paull, J. (2006). *The farm as organism: the foundational idea of organic agriculture*. *Journal of Bio-Dynamics Tasmania*, (80), 14-18.
- Pease, M. (1929). *Anthroposophical Society in Great Britain*. *Anthroposophical Movement*, 6(40), 346-348.
- Pfeiffer, E. (1928). *The Work of the Agricultural Experimental Group*. *Anthroposophical Movement*, 5(5), 34-35.
- Pfeiffer, E. (1934a). *Does Bread Nourish*. London: Rudolf Steiner Publishing Co.
- Pfeiffer, E. (1934b). *New Methods in Agriculture and Their Effects on Food-stuffs*. London: Rudolf Steiner Publishing Co.
- Pfeiffer, E. (1935). *Short Practical Instructions in the Use of the Biological-Dynamic Methods of Agriculture*. London: Rudolf Steiner Publishing Co.
- Pfeiffer, E. (1938a). *Bio-Dynamic Farming and Gardening: Soil Fertility Renewal and Preservation* (F. Heckel, Trans.). New York: Anthroposophic Press.
- Pfeiffer, E. (1938b). *De Vruchtbaarheid der Aarde: Haar Behoud en Haar Vernieuwing het Biologisch-Dynamische Principe in de Natuur*. Deventer, Netherlands: N.V. Uitgevers-Maatschappij & E. Kluwer.
- Pfeiffer, E. (1938c). *Die Fruchtbarkeit der Erde Ihre Erhaltung and Erneuerung: Das Biologisch-Dynamische Prinzip in der Natur*. Basle, Switzerland: Verlag Zbinden & Hugin.
- Pfeiffer, E. (1938d). *Fécondité de la Terre, Méthode pour conserver ou rétablir la fertilité du sol: Le principe bio-dynamique dans la nature*. Paris: Editions de La Science Spirituelle.
- Pfeiffer, E. (1938e). *La Fertilità della Terra come Restaurarla e come Conservarla*. Milano, Italy: La Prora.
- Pfeiffer, E. (1938f). *Practical Guide to the Use of the Bio-Dynamic Preparations* (Revised Edition). London: Rudolf Steiner Publishing Co.
- Pfeiffer, E. (1940). *Bio-Dynamic Farming and Gardening: Soil Fertility Renewal and Preservation* (second revised and enlarged). New York: Anthroposophic Press.
- Pfeiffer, E. (1947). *Soil Fertility, Renewal & Preservation: Biodynamic Farming and Gardening* (1947 edition of 1938 publication; first thus with the original title and subtitle interchanged). London: Faber and Faber.
- Pfeiffer, E. (1956a). *Bio-Dynamics: A Short, Practical Introduction*. *Bio-Dynamics*(41), 2-9.
- Pfeiffer, E. (1956b). *Rudolf Steiner's Impulse to Agriculture*. *Bio-Dynamics*(40), 2-15.
- Pfeiffer, E. (1958). *Preface*. In R. Steiner (Ed.), *Agriculture Course: The Birth of the Biodynamic Method, Eight lectures given in Koberwitz, Silesia, between 7 and 16 June 1924*, (George Adams Trans, first published thus 1958, 2004 ed (pp. 5-16). Forest Row, UK: Rudolf Steiner Press.
- Pfeiffer, E. (1983). *Soil Fertility, Renewal & Preservation: Biodynamic Farming and Gardening* (1983 edition; 1938 original title and subtitle interchanged; plus new introduction). East Grinstead, Sussex: The Lanthorn Press.
- Pfeiffer, E. E. (1958). *New Directions in Agriculture*. In A. Freeman & C. Waterman (Eds.). *Rudolf Steiner: Recollections by Some of his Pupils* (pp. 118-129). London: The Golden Blade.
- Ritter, W. (1926). *On the Work of the Anthroposophical Farmers and their Meeting at Dornach in January, 1926*. *Anthroposophical Movement*, 3(7), 52-54.
- Selawry, A. (1992). *Ehrenfried Pfeiffer: Pioneer of Spiritual Research and Practice*. Spring Valley, NY: Mercury Press.
- Stapleton, G. (1935). *The Land, Now and To-morrow*. London: Faber & Faber.
- Steffen, A., Steiner, M., Wegman, I., Vreede, E., & Wachsmuth, G. (1929). *The Goetheanum at Dornach*. *Anthroposophical Movement*, 6(3&4), 17-24.
- Steiner, R. (1924a). *Report to members of the Anthroposophical Society after the Agriculture Course, Dornach, Switzerland, June 20, 1924* (C. E. Creeger & M. Gardner, Trans.). In M. Gardner, *Spiritual Foundations for the Renewal of Agriculture by Rudolf Steiner* (1993, pp. 1-12). Kimberton, PA: Bio-Dynamic Farming and Gardening Association.

- Steiner, R. (1924b). To All Members: The Meetings at Breslau and Koberwitz; the Waldorf School; the longings of the Youth. *Anthroposophical Movement*, 1, 17-18.
- Steiner, R. (1924c). To All Members: The Meetings at Koberwitz and Breslau. *Anthroposophical Movement*, 1, 9-11.
- Steiner, R. (1928). *The Story of My Life*. London: Anthroposophical Publishing Co.
- Steiner, R. (1929). *Agriculture Course* ("Printed for private circulation only"; first English language edition; George Kaufmann Trans). Dornach, Switzerland: Geotheanum.
- Steiner, R. (1938). *The Agricultural Course* ("Printed for private circulation only", 1938 ed. of 1924 course, new translation, translator not identified). London: Rudolf Steiner Publishing.
- Steiner, R. (1958). *Agriculture: A Course of Eight Lectures* (George Adams Trans, 1958 ed. of 1924 course). London: Bio-Dynamic Agricultural Association.
- Steiner, R. (1993). *Spiritual Foundations for the Renewal of Agriculture: A course of lectures held at Koberwitz, Silesia, June 7 to 16, 1924* (C. Creeger & M. Gardner, Trans. This translation first published 1993). Kimberton, PA: Bio-Dynamic Farming and Gardening Association Inc.
- Steiner, R. (1998). *Rudolf Steiner Speaks to the British: Letters and Addresses in England and Wales* (J. Collis, Trans.). London: Rudolf Steiner Press.
- Steiner, R., Steffen, A., Wegmann, I., Steiner, M., Vreede, E., & Wachsmuth, G. (1923). *Statutes of the Anthroposophical Society*. Dornach: Anthroposophical Society.
- Turgeniev, A. (2003). *Reminiscences of Rudolf Steiner and Work on the First Goetheanum* (M. Wood & J. Wood, Trans.). Forest Row, UK: Temple Lodge.
- Villeneuve, C. (2004a). *Rudolf Steiner in Britain: A Documentation of his Ten Visits, Volume 1, 1902-1921*. Forest Row, UK: Temple Lodge.
- Villeneuve, C. (2004b). *Rudolf Steiner in Britain: A Documentation of his Ten Visits, Volume 11, 1922-1925*. Forest Row, UK: Temple Lodge.
- von Gaisberg, S. F., Lux, G., Michalke, C., & Pfeiffer, E. (1927). *Taschenbuch für Monteur Elektrischer Starkstromanlage Bearbeitet und Herausgegeben* ((Handbook for Mecanic). Munchen, Germany: Druck und Verlag von R. Oldenbourg.
- von Keyserlingk, A. G. (Ed.). (1999). *The Birth of a New Agriculture*. London: Temple Lodge.
- von Pilsch, Baron Senfft. (1928). *Farmer's Conference*. *Anthroposophical Movement*, 5(34), 267-268.
- Vreede, E. (1929). *Count Carl von Keyserlingk: A New Years Eve Memory*. *Anthroposophical Movement*, 6(5), 37-38.
- Wachsmuth, G. (1926). *Anthroposophical Movement*. *Anthroposophical Movement*, 3(29), 135-137.
- Wachsmuth, G. (1929). *Editor's Preface*. In R. Steiner (Ed.), *Agriculture Course* (first English language edition; George Kaufmann Trans ed., pp. F/1-F/4). Dornach, Switzerland: Natural Science Section, Goetheanum.
- Wachsmuth, G. (1989). *The Life and Work of Rudolf Steiner* (O. D. Wannamaker & R. E. Raab, Trans. 2nd edition; first published in German 1941). Blauvert, NY: Spiritual Science Library.
- Whicher, O. (1977). *George Adams: Interpreter of Rudolf Steiner*. East Grinstead, Sussex, UK: Henry Goulden.
- Wilson, C. (1985). *Rudolf Steiner: The Man and His Vision*. Wellingborough, Northamptonshire: The Aquarian Press.
- Wood, E. M. (1935). *Poultry in the Farm Organism*. *Anthroposophical Agricultural Foundation Notes and Correspondence*, 4(10), 262-264.
- Wood, E. M. (1936). *The Farm - Organism*. *Anthroposophical Agricultural Foundation Notes and Correspondence*, 4(5), 315-319.