

Plants For A Future Research Work including a Comprehensive Survey of The Field, Penpol

Terms of Reference – DRAFT

Chris Marsh, PFAF Charity trustee, 27/3/08

1. Background

Plants For A Future (PFAF) is an organisation whose aims include research and education into alternative methods of producing food, specifically vegan-organic horticulture. PFAF can usefully be considered as research into ‘food security’, a subject which is recognised as of crucial importance, especially with concerns about peak oil and climate change having to be addressed.

1.1 Food Security

Food security is an important subject anywhere in the world, and perhaps there are special challenges for Britain, this supposedly crowded island. According to DEFRA, Britain produces about half of the food consumed here, but this is based on monetary value, which is pretty meaningless. For example, does the total food consumed here include animal feed? Does production include every stage from seed to prepared and wrapped product? DEFRA provides figures for yields in tonnes per hectare, both for Standard Farm Practice and for Organic farming, and one can be sceptical about the meaning and usefulness of these figures too, whether labour and energy demands are included or disregarded or fudged.

But uncertainty about yields, productivity, self-sufficiency, sustainability – the components of security – is also found where unconventional, or ‘alternative’, methods of producing food have been tried. The people involved with PFAF, engaged in the development of its two extensive experimental plots, have tended not to keep systematic records, hence the necessity to commission research into what PFAF has achieved, and to document what can be learned from this major experiment and applied elsewhere.

1.2 The Work of Plants For A Future

Plants For A Future was founded and led by Ken Fern, an acknowledged and highly respected expert on edible and useful plants, native to Britain and other temperate areas around the world. Fern carried out a great deal of research and experimentation between 1974 and 1997, and compiled a database of 7,000 useful plants. In 1989 he acquired a field in Penpol in Cornwall – still called ‘The Field’, despite being nothing like the 28 acres of degraded farmland it was when he bought it – and established a demonstration site where, by 1997, 1,500 different species of plants had been planted. In 1997 he published a book: *Plants For A Future: Edible and Useful Plants for a Healthier World* (Clanfield, Hampshire: Permanent, 1997). Since 1997, work has continued on the land, and there has been considerable interest in the online database. There have also been education initiatives, and social experiments directed at exploring how land could be communally managed, out of which a number of bodies were set up: the PFAF charitable company, the PFAF Land Club and the PFAF Workers Cooperative Ltd.

PFAF enjoyed a ‘heyday’ in the 1990s, when many people were involved, courses and events were held at The Field, plants were sold by mail order, and consultancy advice provided. Despite the early successes and optimism, the last ten years have been troubled. The nature and causes of difficulties are complex, but are of a kind which are perhaps inevitable when any group of strong-

minded, and passionately committed people try to work together, especially when what they are trying to achieve is radically at variance with conventional society and its rules and administrative authorities. The number of people still involved in PFAF is now small, there is no collective spirit or ethos, and there are too few people willing and available to maintain The Field as a demonstration site. The cause seems to be primarily personality differences and differences of opinion – but also the whole setup at The Field was disturbed by attention and energy being diverted to a potentially exciting, but ultimately abortive, ecovillage project on an 85 acre site at Blagdon in North Devon.

Two main principles inspired and guided the experiment, firstly the importance of food plants, which are the source of virtually all human nutrition; secondly the idea closely connected with permaculture that agriculture can use natural models, unlike monocultural farming which is so unnatural that it is necessarily ‘at war with nature’.

Although Ken Fern originally saw himself as engaged in a permaculture experiment, his collaborators have identified themselves with veganism rather than with permaculture. Practising permaculturists have criticised the work of PFAF, both at The Field and at Blagdon, for not having been carried out according to a proper design. For a land use project, a permaculture design should identify and record diagrammatically the starting situation, the projected elements within the finished system and the time scale to get from one to the other. It could also usefully include an assessment of the current and target environmental impact. Progress from current (adverse) impact to target (beneficial) impact would be reflected in stages towards maturity and increasing yields from the developing system. Fern’s intentions in that regard are reflected in documentation concerned with the PFAF Land Club, but records of work done, progress towards objectives, and yields, were not recorded.

Regardless of figures and hard evidence, the PFAF experiment at The Field is interesting, because one factor which has been strictly and consistently adhered to is that the land use practice is vegan-organic. If food security is what we are all interested in, then it may be valid to claim that the 60 million acres of the land of Britain should be able to produce enough food for the 60 million people living here, but not for 10 million cows (the size of Britain’s herd) as well, let alone the millions of pigs, chickens and intensively fattened lambs, although a few hefted sheep on the uplands would be a good use of otherwise unproductive and meagre pasture. Hence a small ration of animal products might be managed, but we shall all have to eat more plant foods. The PFAF experiment was not directed at food security, at laboriously maximising edible biomass per unit area; it was about discovering new food plants which might be advantageous, particularly if they are robust perennials requiring little tending once established, giving useful yields, or being highly nutritious.

2. Aims of the Research and Survey

The central aim of the research work now being commissioned is to investigate and assess the value of PFAF’s lengthy experiment and investigation concerned with food security and alternative methods of food production. Also, given the comments above on systematic design as a key tenet of permaculture, the study should examine the extent to which the PFAF experiment at The Field included a *de facto* design, identifying what the objectives of the design effectively were and the extent to which they were achieved. SCANNED MAPS: NEED TO BE PROPERLY ASSESSED

So the main research question is: ‘What has PFAF achieved over the past ten years?’ The focus is primarily the 28 acre plot known as The Field, and what has been learned about vegan-organic horticulture and potentially interesting new plants. But the study could usefully include peripheral achievements: the promotional and educational work done by PFAF’s many roadshows, the plant

database and web-site, and perhaps include what was achieved at Blagdon, the North Devon site, with the visits, tours and volunteers obviously achieving a lot in terms of education – and inspiration – which is a vital component in the drive to change.

The achievements and information gained as a result of PFAF's work should be considered in relation to the wider subject of how to produce human food, and alternative forms of land use. The study report should include conclusions on what the experiment has proved or disproved, and how any findings might be used to influence wide scale changes in current methods.

3. Conduct of the Research

The management board for the study will consist of the three PFAF Trustees. It is expected that the management board will meet the researcher at approximately quarterly intervals to receive and discuss a report of progress to date, issues arising, and the work necessary to complete the study.

Information relevant to the research aims will be derived from three main sources:

1. by carrying out an ecological survey of The Field to record what is there now, and considering what conclusions can be drawn from this legacy;
2. by seeking information (by whatever means is appropriate) from participants in PFAF on what was done, and what was learnt, over the past ten years from their perspectives; and
3. by collecting and interpreting relevant information and opinion on food production and land use methods, in order to compare and contrast with PFAF principles and practice, to inform conclusions on its wider relevance.

These three sources have different characteristics, and to utilise them successfully will require particular specialist skills and knowledge, together with an active interest in the subject matter of the research. Accordingly, while PFAF prefers to enter into a single contract for the entire study, it is expected that more than one individual will need to be involved.

3.1 Ecological Survey

The ecological survey of The Field is to be a snapshot of what is there, almost twenty years from when the Ferns took possession of it. We envisage that the surveyor will study the site over the course of a year, with three or more extended visits at different seasons being required, interspersed by periods of analysis and writing up of findings.

The Charity arranged for an ecological survey to be carried out of Blagdon, its North Devon site, shortly before it was sold. What was interesting about Blagdon was the ecological diversity, the indigenous trees which were planted, and the 'rewilding' which had taken place naturally. A qualified botanical surveyor known to one of the trustees was employed. The ecological survey of The Field would be a similar exercise but with an extended scope. The Field has been planted with indigenous plants, particularly trees, with a view to about half the site being natural woodland. But The Field has also been a demonstration site, with 1500 potentially useful food plants being introduced at an early stage, and other plantings such as over 100 varieties of apple trees. Ideally, the survey requires someone with knowledge of food plants as well as of woodland and ecological diversity.

3.2 The Past Ten Years

The results of the ecological survey proposed in 3.1 above would go some way towards making up for the fact that the few people working on The Field in recent years have not had time to keep records. Records of hours worked on what activities, and yields of what kinds and when, and actual weights or estimated quantities, have apparently not been kept. Hence, the second source of information, and a separate body of work from the ecological survey, will be to seek whatever anecdotal information can be gleaned from participants in PFAF on what was done, and what was learnt, over the past ten years. As well as experience gained in growing, caring for and harvesting useful plants, this could include 'soft' issues such as labour organisation, division of land, motivation of workers, ethics and principles applied, etc. The researcher should seek information from Ken Fern; Addy Fern; current members of the Land Club, and volunteers who have worked on The Field, if their whereabouts are known; plus others who were involved in various capacities over the ten year period.

3.3 What Has The PFAF Experiment Proved Or Disproved?

This could be tackled in several ways. Two possibilities are suggested below.

The first is to consider PFAF's activities and outcomes compared to Ken Fern's original aims, as expressed in his book. This analysis would take the results of parts 3.1 and 3.2 of the Survey and consider those in relation to the 'Introduction', and 'guide to the philosophy', from Ken Fern's book, *Plants for a Future*. The Introduction has sub-headings: 'If Only Carrots Grew On Trees!', 'What Is Permaculture?', 'The Productive Woodland', 'A Field of Wheat', 'The Value of Diversity', and 'About This Book' – all full of aspirations and optimism. Although clearly PFAF has not met all these aspirations, there should be much to be gleaned which is interesting and useful.

The second is to relate the PFAF experiment to the global history of land use, and the methods employed to provide for the food needs, especially, of human communities. The PFAF experiment at The Field is connected to an aim which is central to organic growing and permaculture, and other alternative approaches, which is often expressed as 'working with rather than against nature'. In the case of organic growing the aim is to avoid artificial fertilisers, weed killers and pesticides, and instead to use natural manures, manual weeding and facilitating natural controls through companion planting, rotation and so on. Permaculture goes further by introducing the idea of designing food growing systems based on models from nature.

It would appear – to be verified during the research – that one aim at The Field has been to see if the new and unusual plants, which Ken Fern has selected for their potential uses by humans, can coexist in the midst of indigenous plants, without the need for the intensive weeding and tending that is generally needed for traditional plant cultivars. Ken Fern has said that self-reliance was never the aim; it was not his intention that The Field would provide for those involved to have their basic food needs met by what was grown on the land. The Field was a 'demonstration plot'. People would come from afar to see the plants growing, taste the fruits and leaves, and take away cuttings, plants etc. to try them out elsewhere. The study should consider whether there is evidence to suggest that plants we rely on can or cannot successfully grow side-by-side with indigenous, wild plants. (In addition to the 'demonstration garden', a very large number of fruit trees were planted, especially apples, and the 100-plus varieties were cultivated ones, some presumably in danger of being lost. The objective of this planting, and of the cultivation of some conventional foods (soft fruit, squashes, parsley, etc) needs to be clarified.)

4. Expected Outputs and Reporting

It is expected that the overall timescale for the work will be about 18 months, to allow time for The Field to be surveyed over the course of a year, plus time for collation, analysis and reporting.

The content and format of the study report, including how the information collected will be analysed and distilled, will need to be discussed and agreed between the researcher and the management board towards the end of the information collection/ survey period.

The members of the management board will need to accept the final report, which in turn means they need to be satisfied that the final report meets the objectives of the study, before releasing the final payment for the work.

Once the study is completed, the end products could be used in various ways to raise awareness of or promote the work of PFAF. It may be used in pamphlets, articles, website material, and/or a book. Within the contract with the researcher, the PFAF Charity will wish to retain copyright control over the results of the work.