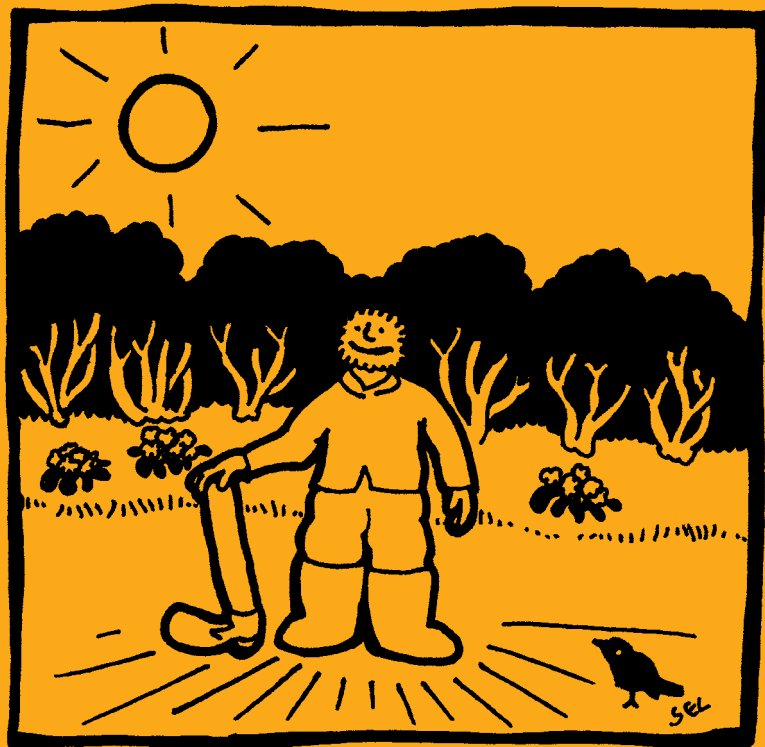


An Introduction to

# Twenty-First Century HOE FARMING

– an antidote to globalisation



Gareth Lewis

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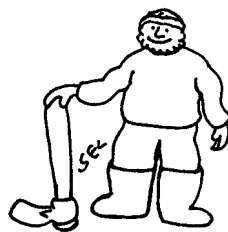
– an antidote to globalisation

Gareth Lewis

Illustrations:

Bethan Lewis

Samuel Lewis



***Tim the Gardener***  
by Samuel Lewis

By the same author:  
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[www.hoe-farming.com](http://www.hoe-farming.com)

# Preface

The aim of this book is to give credence to the age-old idea that a human being can supply themselves with all their most important needs with the aid of a hoe, and a few other simple tools – even in the age of the global economy.

It is not a comprehensive guide to hoe farming, but a mixture of things that I have learnt while hoe farming over the last ten years, and thoughts on the subject of hoe farming in general.

I am aware that there are hundreds of millions of people in the world who know a lot more about hoe farming than I do, but there are not many people who have spent time re-establishing a hoe farm in an area that has been industrially farmed for a number of years; it is my experience in this field that I hope to communicate in this book.



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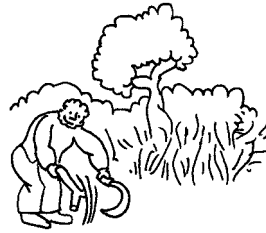
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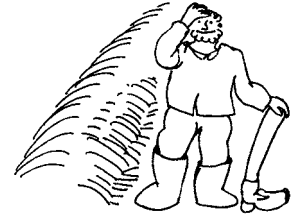
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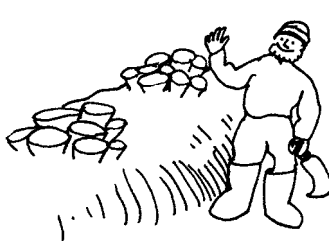
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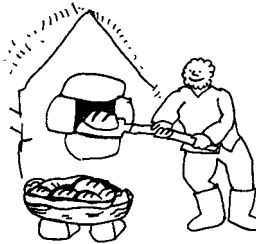
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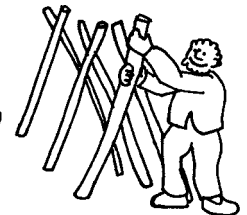
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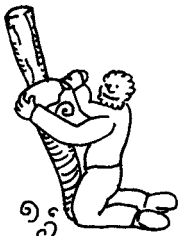
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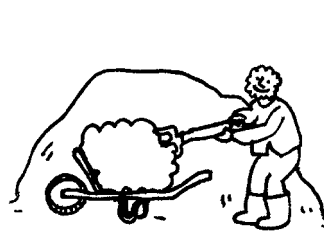
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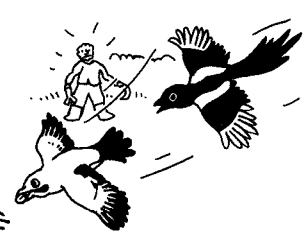
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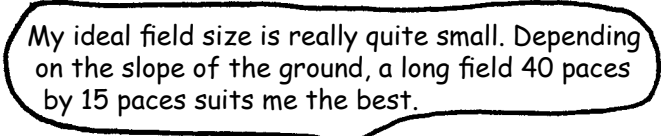
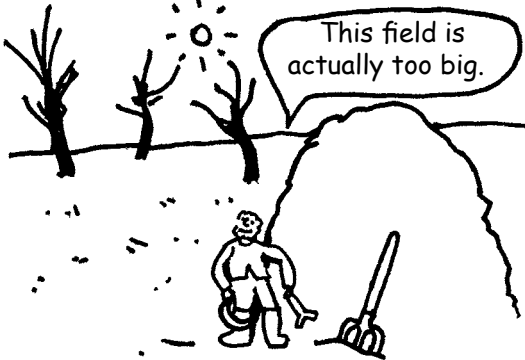
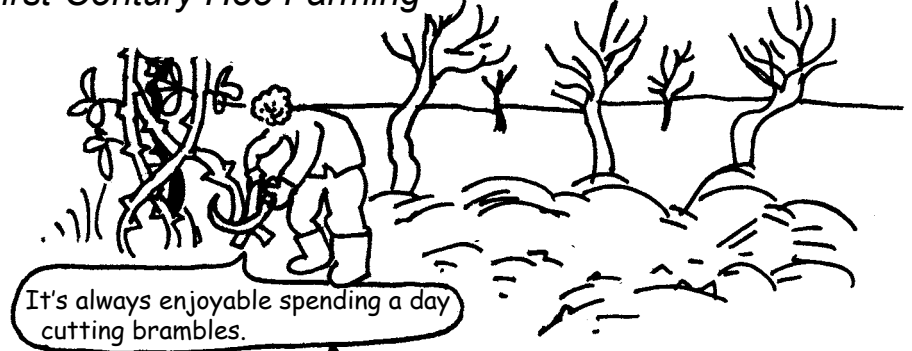
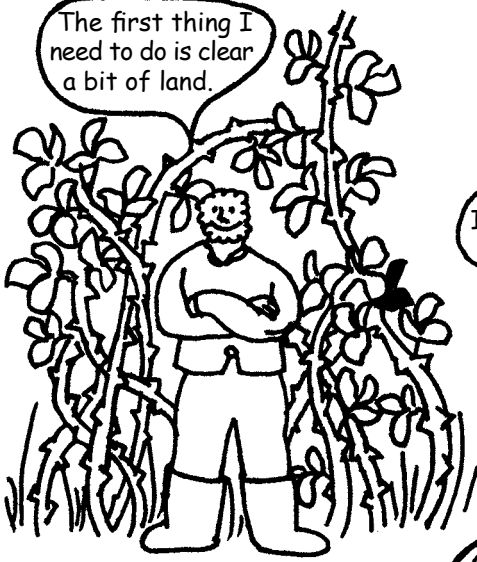


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# CLEARING LAND



# Introduction

**H**oe farming in its simplest form involves hitting the ground with a sharpened object over and over again until the soil is broken down into fine particles, providing a suitable environment for sowing the seeds of your favourite plants. It is without doubt the biggest single technological breakthrough in human history: it is the technique that allowed people to change from a hunter-gatherer way of life, and to embark on the path of agriculture. Once people became farmers they could shape their surroundings to suit their own needs, human population numbers could rise, food surpluses could be stored, cities could grow, and civilisations could rise and fall – all because of the humble hoe.

When I moved to Brittany, over twenty years ago, and found myself in possession of a couple of acres of farmland, my first thought was certainly not to start working it with a hoe, but I knew that I did want to treat my land well, that I wanted it to be productive, that I wanted it to be economic, and that I wanted to improve its fertility. It was as much a surprise to me as to anyone else that these simple criteria eventually led back to practising the oldest method of agriculture known to man – hoe farming.

I was not a complete novice when it came to agriculture, the time that I spent on my grandfather's farm in South Wales as a child inspired me to follow up a Biochemistry degree with a Masters degree at London University in the subject of Applied Plant Sciences, which looked at the science behind agriculture and crop plants. Thus, I went into my hoe-farming endeavour with a lot of theoretical scientific knowledge from my university days, plus a small amount of practical knowledge gleaned from my extended family when I was a child. The latter proved invaluable, whilst the former had almost no relevance at all.

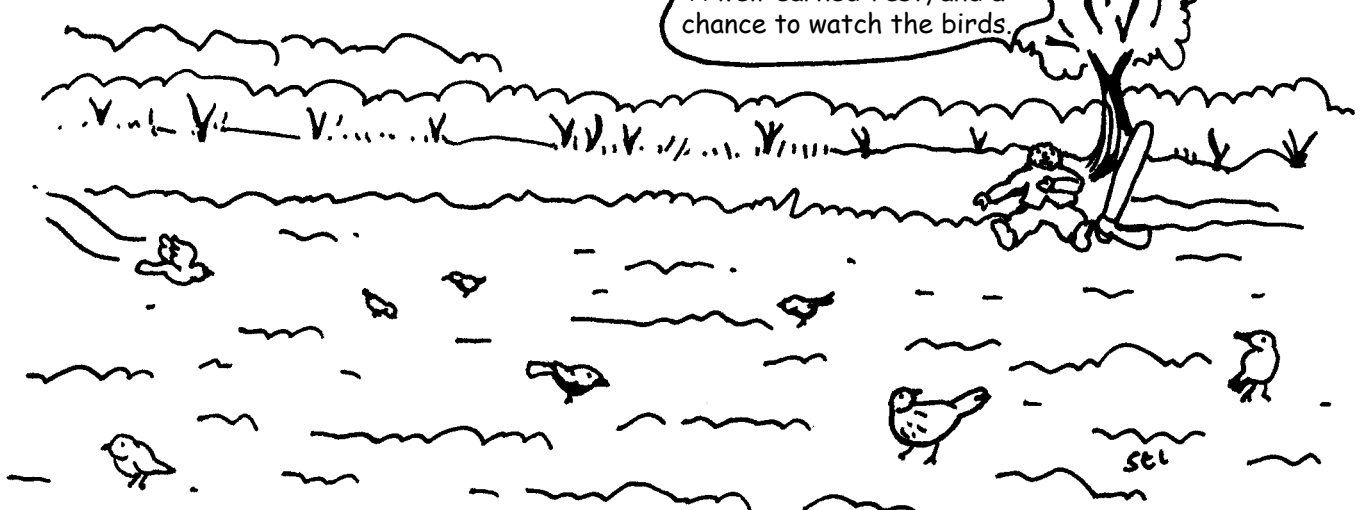
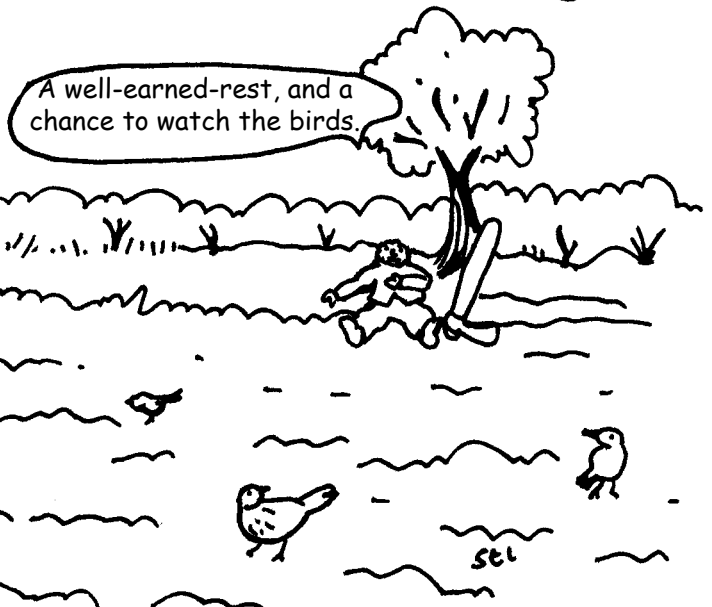
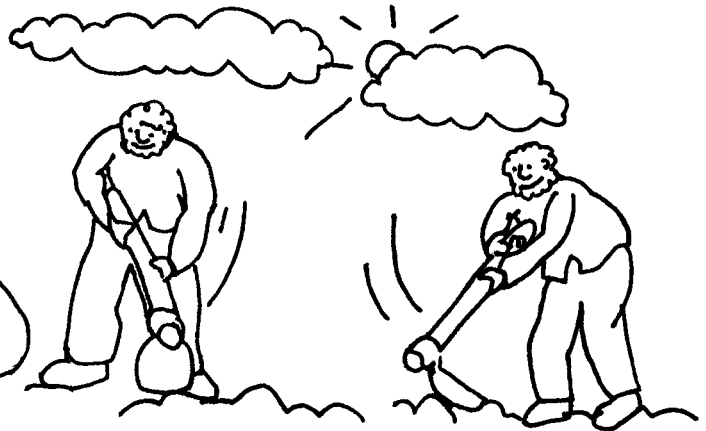
What I discovered was that modern farming practices have seriously depleted the soil's fertility, and that the depleted soils are no longer capable of growing crops without the addition of inorganic fertilisers, which in turn require the use of pesticides, herbicides, etc. The agricultural industry, and the related government and academic institutions, remains resolutely blind to this loss of soil fertility, and to the consequences that it might have for all forms of life in agricultural regions.

The aim of this book is to make the point that hoe farming can restore fertility to agricultural soils, provide people with their basic needs, and is good for wildlife of all forms. The text revolves around a few simple facts, such as that hoe farming does not involve a great deal of work, hoe farming is not incompatible with other forms of employment, and that hoe farming allows people to have a positive relationship with Nature. The illustrations make the same points, and also give some extra information about various practical aspects of hoe farming.





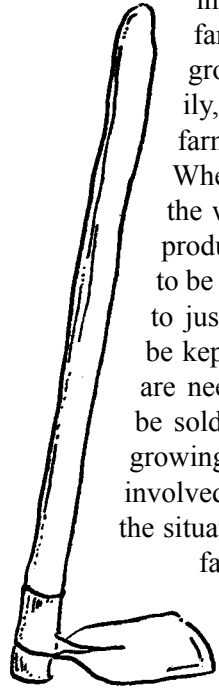
# HOEING



# What is Hoe Farming ?

**H**oe farming is the method of farming that involves breaking the ground with a hoe, rather than with a plough or a rotovator. From this, a lot of other things follow. In the first place, the traction animal on the hoe farm is the farmer herself or himself. This makes for a much more intelligent and economical form of farming: if the farmer is doing all the work themselves it is not in their interest to do any more than is necessary, and also the work will be done with more care and precision than would be possible if an animal or machine was being used.

Furthermore, the concept of the farm becomes a lot simpler – the farmer grows food for themselves and their family, and the family does the work on the farm - there are no external complications. When a traction animal is employed to do the work, extra land has to be taken on to produce food for the animal, which is likely to be rather big - a horse, a donkey or an ox; to justify the extra land, the animal has to be kept busy, so more crops are grown than are needed, a surplus is produced, it has to be sold, and the farmer is no longer simply growing food to meet their own needs, but is involved in agricultural trade. With a tractor, the situation becomes even more complex: the farmer does not need extra land to feed the tractor, but somebody, somewhere, has to be drilling for oil, and refining diesel to power the tractor, and someone has to be running a



factory building tractors. The farmer has to have money to buy the tractor and its fuel, and soon finds themselves a long way from the simple process of growing food for their family.

This has further implications, now lost from view in European countries: when an area of countryside is hoe farmed, the work is done by the farmer, and he or she shapes the countryside to suit their own personal needs. This means that fields will be small, they will be terraced, and will be surrounded by banks of coppiced trees. The field openings will be small, and houses will be made from natural materials, and will have the richest, most fertile fields beside them. Paths will be lined with trees, and will be just wide enough for someone on foot with a load of hay or wood. In addition, the hoe-farmed countryside will be full of wild flowers, birds, and wildlife of all sorts – the fertile soil, the trees, and the human scale of operations, will suit not only people but plants and animals as well.

When using horses or tractors, the landscape has to be reshaped to suit their needs, and the countryside ceases to be as verdant or as welcoming.

Hoe farming is not, therefore, just a system for growing food; it is a way to live in harmony with Nature, which enables a human being to build an environment for themselves in which they feel at home.

## The Basic Principles

The science of agriculture rests upon one simple idea – to prepare an area of ground in such a way as to favour the growth of a particular crop. This is done by removing existing vegetation, breaking up the soil, and making sure that the soil contains the nutrients the crop needs. In most parts of the world, the crops that people have wanted to grow, and which have made an agricultural lifestyle possible, have been cereals, and a simple hoe was the tool used to clear the ground, and break the soil down into a suitable state for planting the seed.

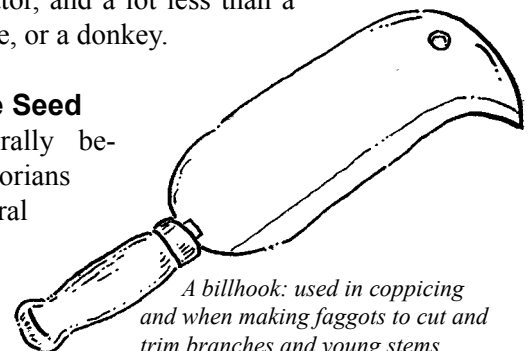
In the early days of agriculture, the hoe was probably made of wood, or of a stone attached to a wooden handle. In more recent times, various metals have been used – nowadays, iron is the preferred material whenever it is available.

## Preparing the Soil

The main function of the hoe is to break up the soil in order to make a suitable medium in which to sow seeds. This involves a simple action of lifting the hoe above the head and bringing it down with force to hit the ground. This is repeated over and over again until a sufficient area of ground has been prepared to a standard that suits whatever crop you plan to grow. The job can be done in stages: a weedy area can be hoed a few weeks in advance of sowing, and then hoed again closer to the sowing date, and, if necessary, hoed a third time just prior to sowing. The surprising fact is, that despite all the advances in agricultural technology, a human being with a hoe can still prepare an area of ground to a higher standard than can be achieved in any other way: this is partly due to the intelligence of the human being, who can direct the hoe head to any specific lump of soil or clump of weeds that needs to be given special attention, and partly due to the design of the hoe, which only disturbs the soil to a depth of five or six inches, and therefore does not bury topsoil under inert subsoil, or unduly disturb the structure of the topsoil. Also, a human being working on an area of ground causes less soil compaction than even a lightweight rotovator, and a lot less than a tractor, a horse, or a donkey.

## Planting the Seed

It is generally believed by historians and agricultural scientists that the



*A billhook: used in coppicing and when making faggots to cut and trim branches and young stems.*