

# Biodynamic Frequently Asked Questions

## What is biodynamic agriculture?

Biodynamic agriculture is the oldest consciously organic approach to farming and gardening and is one of the most sustainable in existence. It is founded on a holistic and spiritual understanding of nature and the human being and builds on the pioneering research work of Rudolf Steiner.

## Who was Rudolf Steiner?

Rudolf Steiner (1861-1925) was an Austrian philosopher, scientist and social reformer who sought to extend scientific research beyond the existing parameters of natural science and investigate the non-physical, spiritual realities of life. Using a clear and accessible means for attaining spiritual knowledge, he offered insights that have inspired new approaches to medicine, education, the arts, social reform and economics as well as agriculture. Spiritual science follows a conscious methodology that can be followed up with rigorous thinking activity. The name given to this new branch of science is 'anthroposophy', a Greek word meaning 'wisdom of Man'.

## How is biodynamic different from organic?

- Every biodynamic farm aims to become self-sufficient in compost, manures and animal feeds.
- All external inputs are kept to a minimum.
- Compost is treated with special herb-based preparations.
- Crop quality is improved using natural manure and quartz based preparations.
- Ecological diversity is a goal of landscape management.
- An astronomical calendar is used to determine auspicious, planting, cultivating and harvesting times.

## What are the Preparations?

Biodynamic preparations are uniquely fermented natural and organic substances that are used to steer humus forming processes in the soil, vitalise plant growth and harmonise life on the holding with that of its immediate and more distant surroundings.

The **Compost Preparations** are made from six well known medicinal plants - yarrow, chamomile, stinging nettle, oak, dandelion and valerian. Their specific properties are enhanced and made effective for soil life during the course of a unique fermentation process in the soil.

To make them effective some of the herbs require a sheath made of certain animal organ materials. These serve as catalysts for bringing about the required process.

When ready these humus-like substances are added to the composting material in minute amounts where they radiate their effects throughout the heap. These preparations help to guide and regulate the decomposing and humus forming processes in the soil and make plant nutrient substances (sulphur, potash, nitrogen, calcium, silica, phosphorous) available in precisely the form needed for healthy plant growth.

**Yarrow preparation** is connected to the potassium and sulphur processes of the soil and helps draw in substances, finely distributed in the atmosphere and beyond to replenish a soil grown tired through many years of cultivation.

**Chamomile Preparation** is connected with living calcium processes and helps to stabilise plant nutrients, dampen down excessive fermentation and invigorate plant growth.

**Stinging Nettle Preparation** has a relationship to iron, develops sensitivity in the soil and helps to stabilise nitrogen.

**Oak Bark Preparation** with its calcium rich nature helps to ward off so called plant diseases and fungal attacks.

**Dandelion Preparation** is connected with living silica processes, activates light influences in the soil and enables the interrelationships of nature to become fully effective.

**Valerian Preparation** has a strong affinity to the activity of phosphorous and provides a warmth blanket to the compost heap.

The **Spray Preparations** or field sprays are made from cow manure and quartz meal and are known respectively as 'Horn Manure' and 'Horn Silica'. Horn Manure is cow manure that has been fermented in the soil over winter inside a cow horn. Horn Silica is finely ground quartz meal that spends the summer in the soil inside a cow horn.

Before being applied very small amounts of these prepared substances are dissolved in water and stirred rigorously for one whole hour. This is done by stirring (preferably by hand) in one direction in such a way that a deep crater is formed in the stirring vessel (bucket, barrel). Then the direction is changed, the water seethes and slowly a new crater is formed. Each time a well-formed crater is achieved the direction is changed until the full hour is completed.

In this way the dynamic effects concentrated in the prepared manure and quartz meal are released into the rhythmically moved water and become effective for soil and plant. It is then sprayed out immediately.

**Horn Manure** is sprayed towards evening directly on the soil prior to sowing and planting. It encourages healthy root growth, vitalises the soil and helps the plant find what it needs from the soil.

**Horn Silica** is sprayed as a fine mist directly on the growing plant early in the morning. It helps to stabilise plant metabolism and enhance the qualitative development of the crop.

### Why are animal organs used?

The animal organs are chosen for the unique properties they possess as a result of their former function within the animal organism and serve as catalysts for bringing about the desired fermentation. For example, chamomile flowers are used medicinally to treat disturbances of the digestive tract. When making this particular compost preparation a section of bovine intestine (part of the animal's digestive tract) is used as a catalyst in the fermentation. A clear affinity between chamomile flowers and this organ becomes apparent.

The need for such animal organ material whether for making compost preparations or horn-based field sprays may be understood by considering that fertile soil is not made up simply of mineral substances. It is alive and also filled with animal life. Earthworms are the best known of the animal organisms that live there. They spend their lives devouring decayed vegetable matter along with eroded mineral substances. The stable combination of plant and mineral matter found in the resulting worm casts is brought about through the workings of the worm's digestive system. Soil has therefore been created through an active interweaving of mineral, plant and animal processes. One could say that the earthworms along with other micro-organisms act as catalysts in the creation of soil.

It is then perhaps not quite so surprising that several of the preparations require something from the animal world, in order to make them fully effective. Four of the medicinal herbs used for the compost preparations as well as the cow manure and quartz meal required for the field sprays, need to be surrounded by certain animal organ materials, during their fermentation period.

The materials required and the estimated quantities of organ material needed per acre are as follows:

| <b>Preparation</b>                   | <b>Material</b> | <b>Animal Organ</b>                         | <b>Quantity/year</b> |
|--------------------------------------|-----------------|---------------------------------------------|----------------------|
| <b>Field Sprays</b>                  |                 |                                             |                      |
| Horn manure                          | Cow manure      | Cow horn                                    | 1 Horn / ha          |
| Horn silica                          | Quartz meal     | Cow horn                                    | 1 Horn / 25 ha       |
| <b>Compost Preparations:</b>         |                 |                                             |                      |
| Chamomile                            | Flowers         | Bovine intestine                            | 30 cm / 100 ha       |
| Oak Bark                             | Bark            | Skulls (mature cows, sheep, pigs or horses) | 1 skull / 300 ha     |
| Dandelion                            | Flowers         | Bovine mesentery                            | 30 x 30 cm / 100 ha  |
| <i>Non specified risk materials:</i> |                 |                                             |                      |
| Yarrow                               | Flowers         | Bladder of a male deer                      |                      |
| Stinging nettle                      | whole plant     | None                                        |                      |
| Valerian                             | Flower extract  | None                                        |                      |

### Where can I obtain the Preparations

All the biodynamic preparations can be purchased ready made by mail order from *the Biodynamic Agricultural Association*. In some regions it is also possible to join a local group, help make them and then use them at home.

### What is the Biodynamic Sowing and Planting Calendar?

The Biodynamic Sowing and Planting Calendar is produced each year by the authors Maria and Matthias Thun (pronounced "toon"). It is based on more than forty years of ongoing research into the influences of the moon, planets and constellations on plant growth. It is available from the BDAA.

### How does the Calendar work?

Each month the moon moves through all twelve constellations of the zodiac in turn. This is referred to as the moon's sidereal cycle and forms the basis of the biodynamic calendar. Although the synodic (waxing and waning) cycle is the most well known lunar rhythm, it only plays a small part in this calendar.

Since ancient times the twelve zodiac constellations have been associated with the each of the four elements. Three constellations are connected to each element and each element is related to a part of the plant: Earth - root; water - leaf; air - flower; fire - fruit. For good carrots an earth - root day should be chosen, for lettuce - a water - leaf day, beans and apples - a fire - fruit day etc.

The influences have most effect when the soil is moved and when the biodynamic preparations have been used. Choosing suitable times for cultivation (hoeing, digging, harrowing etc.) as well as for sowing and harvesting is therefore also important.

### **Is biodynamic food better for you?**

Food produced from healthy soil and contented animals will make for healthy people.

Research shows that biodynamic produce:

- keeps fresh for longer
- flavour is better
- dry matter content is higher
- nitrate content is lower
- has greater vitality

There is also considerable anecdotal evidence to show that eating biodynamic food increases vitality, reduces allergic reactions and brings about an all round health improvement.

### **How much research been done?**

A large amount of research has been undertaken over the last eighty years including: Long term comparisons between biodynamic, organic and conventional farming systems, the efficacy of the biodynamic preparations, research into food quality and much more.

### **Where is research carried out?**

There are several dedicated biodynamic research institutes in various parts of the world. These include:

Institute for Biodynamic Research (IBDF), Germany [www.ibdf.de](http://www.ibdf.de) ;  
Research Institute of Organic Agriculture (FiBL), Switzerland [www.fibl.ch](http://www.fibl.ch) ;  
The Josephine Porter Institute for Applied Biodynamics (JPI), USA [www.jpibiodynamics.org](http://www.jpibiodynamics.org) ;  
Michael Fields Agricultural Institute (MFAI), USA [www.michaelfieldsagainst.org](http://www.michaelfieldsagainst.org) ;  
Kolisko Institute, USA [www.kolisko.org](http://www.kolisko.org) ;  
Biodynamic Research Institute (SBFI), Sweden [www.jdb.se/sbfi](http://www.jdb.se/sbfi) ;  
Biodynamic Research Association of Denmark (BRAD), Denmark  
[www.organicqresearch.org\\_research/projects\\_brad](http://www.organicqresearch.org_research/projects_brad) ;

### **How do I know whether food is grown biodynamically?**

Biodynamic produce is marketed using the Demeter symbol and guarantees to consumers that food has been grown and produced to international biodynamic production and processing standards.



### **What does Demeter stand for?**

Demeter is the name of the ancient Greek goddess of fertility and abundance. It is used today as a symbol for wholesome and natural food produced using the biodynamic approach to organic farming and gardening.

### **How many biodynamic farms and gardens are there?**

In 2004 there were 120 Demeter producers in the UK.

There are biodynamic farms in more than forty countries across the world and in all climatic zones. The latest statistics are published annually in the BDAA Annual Report.