



What you've always wondered about biodynamics... by Elisabeth Winkler

Communications manager for the Biodynamic Land Trust

Every smallholder wants to create compost and return goodness to the earth. Biodynamic methods help make it happen. A biodynamic smallholding aims to grow healthy crops without fertilisers, herbicides and pesticides, using natural biological methods such as companion planting for pest protection, and crop rotations to build soil fertility. So far, so organic. But biodynamic goes that bit further.

Using herbal-based preparations and a moon and planet-related planting calendar, the biodynamic smallholder can put more back into the land than they take out, develop compost teeming with life, and encourage plants to reach their potential.

Author and broadcaster Tom Petherick is an inspector for organic and biodynamic certification schemes. After a lifelong interest in organic farming (he helped restore the Lost Gardens of Heligan), he started experimenting with biodynamic methods on his 10-acre smallholding in 2007.

"The attraction to biodynamic is

the mix between the spiritual and the scientific," says Tom Petherick. "It is the science behind it which makes biodynamic growing such a stand-out. Trialling can be done, and cause and effect observed. It's complex and deep. Even after ten years of growing, my biodynamic journey is just getting going."

Science can now demonstrate that biodynamic methods work. According to the world's longest-running trial comparing organic and conventional farming systems (Biodynamic, Organic and Conventional or DOK crop systems trial in Therwil, Switzerland), biodynamic soils are higher in biodiverse microbial activity than organic ones, and supersede organic soils for drought resistance and carbon capture.

Biodynamic farming was born from eight lectures on agriculture given on a Silesian farm estate by Austrian philosopher Rudolf Steiner in 1924. He was invited by German farmers concerned with the decline of soil fertility due to the advent of chemical farming.

Steiner's agricultural lectures outlined a set of practices and principles for sustainable farming. It was at about the same time that the father of organic farming, Sir Albert Howard, was learning traditional methods from farmers in India. Steiner, who grew up in rural Croatia suggested practices both traditional and new. "Steiner's idea was to make the farm self-generating and sustainable, and furthermore, harness the forces within nature to do so," says Tom Petherick.

Today, biodynamic farming has developed into a methodology, and its basic requirements spelled out in the international Demeter standards of farming. Founded in 1928, Demeter is the world's first ecological farming trademark.

Demeter

Used in over 50 countries, Demeter (Biodynamic) Certification verifies that biodynamic products meet international standards in production and processing. Its trade mark is legally



Weekly farm clubs on Huxhams Cross Farm



registered in many countries including the EU. Regulated in the UK by the Biodynamic Agriculture Association (BDA), biodynamic standards stand upon legally-enshrined EU organic standards. Biodynamic farmers wishing for Demeter accreditation must first comply with organic regulations (two-year conversion), then biodynamic requirements (additional one-year conversion).

Biodynamic compliance requires the use of eight herbal-based preparations. Two preparations, Horn Manure (500) and Horn Silica (501), are added to the soil and plants through field sprays, while the remaining six (502 - 507), based on yarrow, camomile, stinging nettle, oak bark, dandelion and valerian, are used to treat the compost heap (or to make an additional culture that can be used as a field spray). Smallholding will look at biodynamic preparations in future issues.

Biodynamic calendar - a new science of timing

The calendar is now in its 56th year. Inspired by Steiner making a connection between planetary forces and plant growth, German farmer, Maria Thun (1922 - 2012) experimented with the planetary effects on planting, sowing and harvesting. Traditional farming has long used lunar almanacs for successful farming. Thun's calendar goes that much further to include constellations and planetary alignments.

Marina O'Connell has been using biodynamic methods for thirty years. After setting up Dartington Hall's School Farm in the 1980s, she started a smallholding in Essex from scratch and is now farming 34-acre Huxhams Cross Farm near Totnes in South Devon using biodynamic farming with permaculture design.

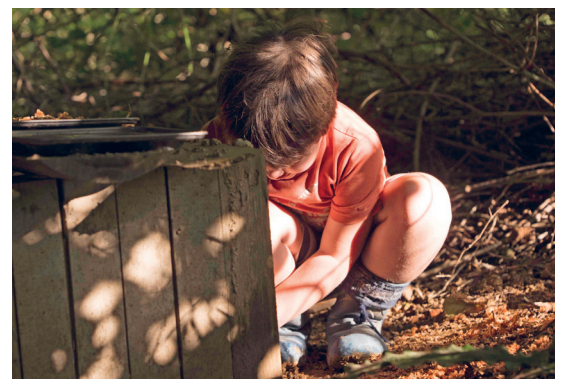
Although using the calendar is not mandatory for Demeter certification,

Tom's Top Tips

- The calendar is a good way into biodynamics. Plant your beans on a fruit day using the calendar in the sky like the old ways
- Find a local biodynamic group to meet experienced people generous with their knowledge
- Use common sense and test biodynamics through your own experience.
- The Biodynamic Association is your portal to all things biodynamic including the preparations and calendar www.biodynamic.org.uk/

Marina believes it has many benefits for farmers and smallholders. She explains how it used.

"The biodynamic calendar observes the waxing and waning 27-day cycle of the moon, or the synodic cycle, and





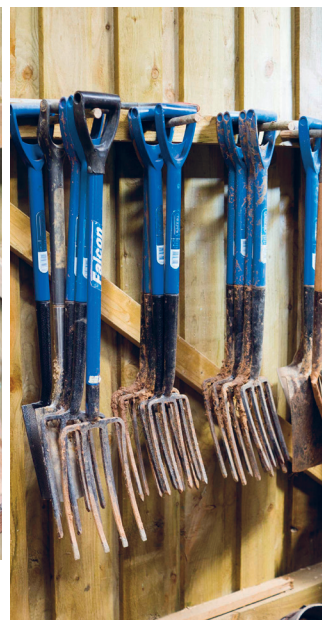
Bob Mehew, farm manager, serving customers at Totnes Friday market



The farm team: Marina O'Connell, Bob Mehew and Dave Wright



Bob Mehew packing the weekly local veg and produce bag for delivery.



the sidereal cycle when the moon is “in front” of the constellations that make up the zodiac. The moon takes about one month to rotate through the signs of the zodiac and these are divided into four groups: water, earth, air, and fire.

“In the sidereal – from the Latin sidus or star – system of growing, work is focused on leaf crops when the moon is in a water sign, on roots when the moon is in an earth sign, on flower crops when in an air sign, and on fruit and seed when in a fire sign. Although this might seem implausible to the modern mind, it has been in practice for millenia. In my experience farmers only continue a practice if it has some practical benefit.”

Huxhams Cross Farm

Three years ago the 34-acre farm was bare land, depleted by chemical farming. Now it is a hub of activity, both below and above ground. Thanks to biodynamic farming methods, the soil is becoming carbon-rich and fertile. Marina O'Connell and her farm team plus volunteers have raised a barn and planted over 3,000 trees and over 2,000 soft fruits plants and produced

the first harvest of a large variety of vegetables. The farm manages weekly learning-by-doing farming activities for local children, and a local food delivery service including biodynamic eggs from their mobile flock of 100 White Leghorn chickens. Marina uses permaculture design to plan the layout of the farm, water systems and energy uses.

The farm is secured in community ownership for generations to come, thanks to community investment, and is looking for further investment for an on-farm building. The low-carbon building will have a kitchen so it can offer farm-to-fork cookery classes for children and adults, and turn excess fresh produce into jams, juices and chutneys. In addition, it will offer training in permaculture and biodynamic farming methods.

Invest for Huxhams Cross Farm with the Biodynamic Land Trust

The Biodynamic Land Trust secured the land in 2015, and rents Huxhams Cross Farm on a long lease to Marina and the Apricot Centre team. A charitable community benefit society, the

Biodynamic Land Trust offers community shares for investment in Huxhams Cross Farm to de-commodify the land and secure it in community ownership. Investing in the Biodynamic Land Trust creates biodynamic organic farms held in trust for future generations, to revitalise nature, local food systems and the rural economy.

www.biodynamiclandtrust.org.uk/huxhams

Rudolf Steiner

The Austrian philosopher, Rudolf Steiner (1861-1925), wrote 30 books and gave over 6,000 lectures throughout Europe, developing a philosophy called anthroposophy (anthropo = human, sophia = wisdom). The belief that all beings can develop their inner-potential founded an education system (Waldorf or Steiner schools), a therapeutic movement for people with learning disabilities (Camphill communities), anthroposophic medicine, an arts movement (eurythmy) and biodynamic farming.