

Shumei – naturally different

It is good to be challenged occasionally and to have to re-evaluate the principles and practices that we can take for granted. A visit to the Shumei: Natural Agriculture Wiltshire outpost certainly does that. There is much in common with organic farming in terms of shared philosophy and practices (indeed they are certified under the Soil Association standards), but what stands out are the differences. The cornerstone of organic farming is the need for rotation. This is eschewed in favour of continuous cropping. The practices of maintaining fertility through the use of legumes and additions of organic fertilisers and animal manures are also not permitted as the 'soil is already perfect' in itself and considered to be capable of infinite regeneration.

Shumei rent a field and a farm cottage from biodynamic farmer Richard Gantlett in Yatesbury in Wiltshire where they practice the principles of Natural Agriculture developed in Japan by Mokichi Okada in the early 20th century. Shumei has been covered in these pages before (OG9), but being a near neighbour I was intrigued to attend one of their open days in August to see for myself.

We were welcomed by Shumei's manager Shinya Imahashi who introduced us to some of the concepts prior to the farm tour. According to Mokichi Okada "The principle of Natural Agriculture is an overriding respect and concern for nature". This is based on the perception



Shinya amongst the squash 'Ebisu'

that consciousness guides all life processes and this extends to all that grows. The elements of nature function best when left in their pure, natural state. Soil is considered pure and already perfect, containing all that is needed for healthy plant growth. The addition of fertilisers inhibits the soils natural ability to enrich itself. This principle of minimal intervention guides the prohibition of organic pesticides (Shumei does not recognise any insect as a 'pest') and fertilisers including animal manures. No composts derived from food waste, mineral fertilisers or charcoal are permitted but they do allow for the use of 'natural compost' derived from 'locally obtained' grass, leaves and crop residues, which they insist is used not for fertility but for:

1. Improving water retention
2. Helping to keep the soil temperate and
3. Softening the soil

According to Shumei, plants build up their resistance to pests over a number of years when grown in the same place. One example he showed us was of an aphid infestation of a tomato crop. After speaking to the tomato every day for 2-3 weeks the aphid disappeared and the tomato was healthy. Sounds impressive but the cynic in me would suggest that a build-up of predator populations would be a more likely explanation! Seed-saving is also

an important part of the philosophy, to adapt the crops to the local environment. In common with biodynamics, spirituality is integral and a pure mind with gratitude and a caring attitude towards the soil and crops is key. Water and soil respond to our hearts.

In practice

On our visit, most of the outdoor crops were looking good, especially considering they had been grown for five years in the same plots without any additional inputs, apart from straw. Shinya explained that while in Japan some Shumei farmers use compost, he chooses not to. "I only apply wheat straw (from natural agriculture) to the 5th generation continuous cropping tomatoes in one of the polytunnels, as in polytunnels the soil stays bare after the tomato harvest. They have no rain and nothing to cover them so the conditions of the soil can get similar to that of a desert. Straw keeps the moisture in."

The tomatoes in the tunnels looked quite nutrient-hungry and they were also very dry, having not been watered since July, mainly for flavour (and they did taste superb!). The tomatoes looking healthiest, however was in the bed where they had been growing continuously for the longest period.

Where any crop seemed to have a problem Shinya explained that it needed more time to adapt to its environment. The Nicola potatoes were very blighty (no surprise there!) but the plot where potatoes had been grown continuously for longest, with seed saved and selected, had less blight than the others.

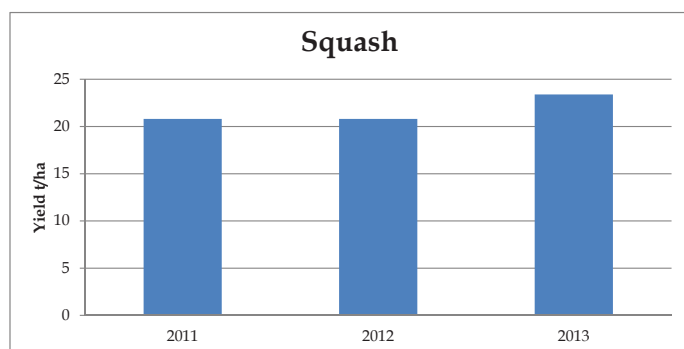
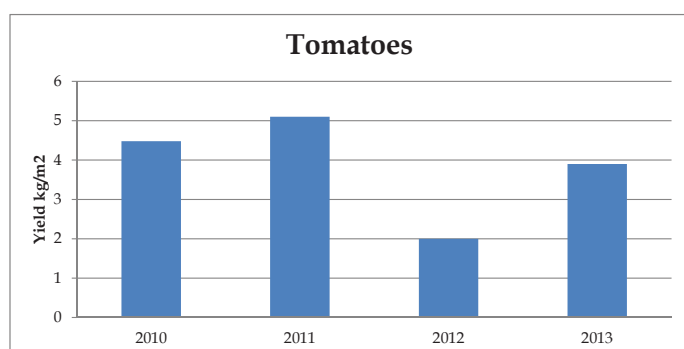
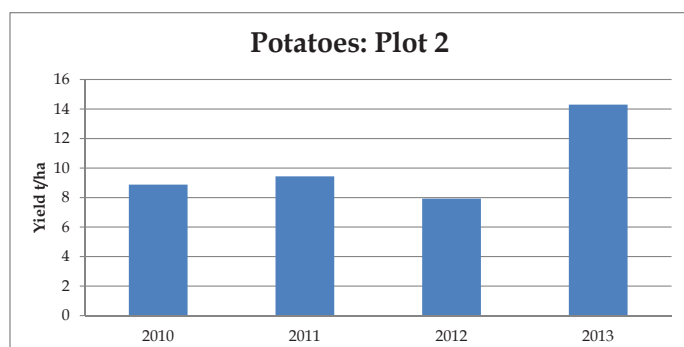
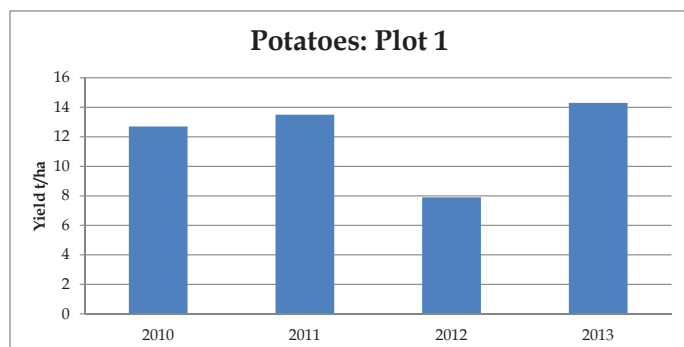
The site is tidy and clean of weeds. Art and beauty are central to Shumei philosophy and there are symbolic elements integrated into the holding with 'Mount Fuji' represented by a mounded flower bed in the middle of the field. Around Mount Fuji there are five 'petals'. "Each petal represents one of the five continents of the world. Through the practice (of) Natural Agriculture, we aspire to unite the world and promote peace"

Shinya explained that beyond the guidelines for healthy seed and soil Shumei does not proscribe specific farming techniques and it is up to individual farmers to find the most appropriate system for their situation. Unlike his landlord, Shinya doesn't practice minimum-tillage (no-dig), for example, using a rotavator for most of his cultivations, which may seem at odds with a system aspiring to be a natural form of agriculture.

Their crops are sold in shops in Bristol and London and to Soil Association staff. Apart from sales to the Divine cafe on the A4 in Cherhill and to some local residents, not much is sold locally.

Yields

Their records show that, though it is still 'early doors' yields of plots under continuous cropping are being maintained or increasing, with some allowance for unusual seasons such as the disastrous summer of 2012. Leeks suffered with leek moth in the early years but no damage has been seen since 2012. Rabbits have been a problem in the brassicas, alliums and lettuces but these are now being kept out with mesh. Yields are on the low side for commercial production, however. The tomatoes are particularly low yielding, though, even in the better years.



Photos: Phil Sumption

Reflections

As organic growers we are (most of us) trying to farm as naturally as possible, following agroecological principles. Do we pay too much attention to the need for rotating crops? What is natural about rotation? In the wild, plants drop their seed and adapt to the situation where they are growing. Many 'old school' gardeners and allotmenters don't rotate their runner beans, for example, claiming that they grow better in the same place each year. There may be some good reasons for this, such as developing symbiotic associations with Arbuscular Mycorrhizal Fungi (AMF). However, brassicas do not develop these associations and they are one of the most important crop groups to rotate due to susceptibility to disease. There are also other valid reasons why we rotate crops, including weed management (mixing up weed suppressing crops with less competitive ones), nutrient management etc.

It seems strange to claim that applications of home-made compost are not returning fertility to the system. It also seems odd that the need to replace nutrients exported as crop is not acknowledged. And, though some vegan growers may disagree, why are animal manures not considered to be natural? And are all soils perfect? There are many soils inherently low in particular macro- and micro-nutrients that make growing crops difficult.

Seed-saving and local adaptation of crops to their environment is a concept I whole-heartedly support. Seed-saving in situ can also provide other agroecological benefits, including support for beneficial insects through nectar and provision of sites for over-wintering. Ironically there was a lack of diversity in some of the crops grown, due to avoidance of contamination through



Healthy looking courgettes, in the third year of continuous growing.

cross-pollination, with only single varieties of some crops such as tomatoes and squashes grown.

The importance of weeds! It may have been a symptom of opening up the holding to the public, but there were very few weeds around. Weeds form useful ecological functions and I never like to see too much emphasis on cleanliness from weeds.

As a researcher I would like to see more evidence to back up some of the claims made. It is still early days on the Yatesbury site and five years is not long enough to draw any real conclusions, particularly in an area that doesn't have a history of vegetable production. If soil-borne diseases start to appear and take hold they can prove to be intractable. It will be interesting to see how Shumei crops fare in the coming years.

Nevertheless, we can all take lessons from Shumei. Founder Mokichi Okada called Natural Agriculture 'the art of agriculture', for it entails more than the familiar duties of farming. We can all take more time to carefully observe plants, soil and insects to understand how they interact. This knowledge enables us to shift our systems toward growing crops in a healthier and more environmentally sustainable way, without bringing in any additives from the outside. According to the Shumei website, 'a Natural Agriculturist balances the act (of food production) with gratitude, humility, and compassion.' We can all do more of that.



Shinya with some fabulous Japanese burdock, which we took home for supper!

Phil Sumption

For more information:

Shumei Natural Agriculture <http://www.shumei-na.org/>
<http://shumei.eu/yatesbury/> and contact: yatesbury@shumei.eu

ORC Organic Producer Conference

The OGA is pleased, as always, to be involved in organising the grower sessions for the Organic Producer Conference. Highlights for growers include:

Day one: 26th November 2014

The first day has a producer-focus with technical and business workshops.

- **Making money out of growing fruit and vegetables** How to best calculate the real costs of production? This will be an interactive workshop looking at different scenarios; field-scale production for wholesale/packers, CSA schemes and growing for veg boxes/direct marketing.
- **Keeping growing: ensuring success.** In recent years with the success of the CSA movement and the apprenticeship schemes there have been many new growers and growing enterprises started. How do we ensure their success once the funding has finished?
- **Emerging opportunities in organic supply chains**
- **Designing agroforestry systems - sponsored by the Woodland Trust.**
- **EU organic regulation**
- **Policy/CAP implementation**
- **The GM threat: time to take action**
- **Securing the future: making succession work**
- **Prof. Pablo Tittone (Wageningen University): Agroecological solutions for future farming**

Day two: 27th November 2014

The second day has a focus on current research and innovation activities, with the aim of bringing producers, researchers, advisers and students together to make change happen!

- **On-farm trials: Learning from the horticultural field labs**
 In this session we will reflect on the lessons learnt from the growers field lab trials and provide growers and researchers a chance to share experiences of conducting small-scale trials. What has worked well and what hasn't?
- **Make legumes do the leg work.** Legumes are extremely versatile and valuable components of sustainable farming systems. Current research and best practices for fully utilising legumes on the farm will be presented and discussed by researchers and farmers.
- **Mary Langman memorial workshop on Organic food quality and health**
- **Organic business management - tools and approaches**
- **Farmer groups leading innovation and research**