GREEN MANURE – IN THE PURSUIT OF QUALITY

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2016 winter green manure

When I first started the biodynamic farming journey it quickly became very clear that sheet composting, green manure and prepared 500 was the most effective way to build a large bank of humus in the soil in situ. The reward and cost for the materials and time versus composting just did not compare, and on the biodynamic evolutionary scale composting seemed quite antiquated.
Rather than just oats and peas it had already been indicated by Alex that the widest range of plant species that would grow in your area was much more desirable, as each species would offer, via the sun and atmosphere, something different to the soil when ploughed in.

The normal mantra was that you want bulk, so the idea was to sow the mixed green manure at about 40kg per acre. I didn't know many farmers then and the amount to be sown probably came from the seed supplier. I used as many species as I could get and aimed for the mix to be about 70% legumes of different varieties, with some grains and whatever 'weeds' wanted to volunteer. This worked quite well and produced a good amount of organic matter and needless to say that for a few years this sufficed. It is worth mentioning here that there is also a large amount of organic matter from the roots too, and down deep, especially if the soil is ploughed with the rehabilitator. And when the green manure is worked in the deep roots remain relatively undisturbed and provide a good deep source of organic matter for humus development. Seasonal conditions permitting I try to mulch and work the green manure into the soil when the legumes are beginning to flower.

Fava Bean at flowering, ready to work in.

Dunn Pea at flowering, ready to work in.

But, as the biodynamic eye and senses became more trained, I became less happy with the overall look, and quality, of the green manure as well as with the individual plants in the green manure. With sowing so heavily the plants were too close together, forced upright in the competition for light, with no plant expression and with dying and yellowing off underneath due to lack of light. Also there was too much competition of the plant roots, with no plant showing that refined root development that Alex speaks of, and that was evident in the vegetables being grown.

I started to reduce the sowing rate and now sow at 20kg per acre. This allows the plants in the green manure crop to have some space and show some individual expression and for the roots to have the chance to develop the much needed refined root structure that, with the 500, develops our beautifully structured biodynamic soil. With less competition for light there was no dying off underneath and this combined with the space for individual plant expression actually produced more bulk of organic matter! In every way a more quality result.

Mulched green manure

After ploughing.