

2010 Field Day
Bio-Dynamic Agricultural Association of Australia
Monday 26.4.2010

Condensed from tape. AGM 2010 Monday, farm field day opened to conventional farmers of Victoria's mid western district on a well developed large Bio-Dynamic farm (grazing, sheep, modern mill). Estimated 200 farmers came, some 50 experienced Bio-Dynamic farmers present to answer question etc. after introductory lecture and after my departure. Not just a lecture by an individual, but a confrontation of the conventional farming system, which is based on Justin Von Liebig's discovery that plants can take in only water soluble elements which lead to the conventional system being increasingly hydroponic almost totally disregarding soil and nature's organization.

The organic farming system is incorrectly understood as one just changing the manure inputs from artificial to "organic" manures – coming from animals. Chicken pellets are loaded with water soluble Nitrogen as is urea. In both cases the problem is the water solubility. Furthermore, in all national and international standards continuous input of fertilizers in aid of an obviously inefficient organic production system is forbidden.

Since Justin Von Liebig discovered that plants can take in elements only when water soluble conventional agriculture has increasingly become preoccupied with this by looking for "deficiencies", i.e. for "something" not yet "discovered" in a system which factually tries to recreate creation. Deficiencies have to be rectified by "addition" – until "all" of nature is covered. Vitamins were discovered in my childhood and the important trace elements later on. Whatever may as yet be awaiting? At the same time farmers lost more and more ancient knowledge of farming and of soil cultivation etc.

Bio-Dynamics in contrast attempts to gain insight into the organisation of Creation. Elements are held within rock in water insoluble form. In nature the elements gradually become soluble – and thus useful to plants. By weathering, chemical action and finally by soil biology, worms and microbes “freeing” elements either of rock or plant origin. But then these elements are not freed per se and appear unrestricted in soil water, they are encased in the colloidal nature of worm casts. Plants are therefore not indiscriminately filled with NPK salts when consuming their requirements whilst taking up water for essential transpiration. In nature organisation soil water is clear of water soluble NPK.

Plants have no individual warmth organisation like man and animal. Sun warmth supplies the warmth for the white feeder roots to enter soil humus and to take exactly the healthy amount of NPK up – under sun jurisdiction.

When agriculture department agronomist in the early fifties questioned what of humus plants can take in and decided – preoccupied with water solubility – that this could only be the humic acid, I filled a large preserving jar with dark humus and buried it in spring 8cm under pasture sod. In six weeks all the dark substance had vanished and was replaced tightly by white hair roots – like a piston in a cylinder. (I once lost several thousand hectares of 500 because tree roots had penetrated the peat moss bottom of a 500 storage bin and entered the bin through drainage holes in its bottom and the 500 was replaced by a bin of white growth.)

By applying water soluble fertilizers plants are force fed and grow larger. “Big is good” influenced in a materialistic age. – But at the same time imbalances occurred causing plant and animal diseases, pests, mites, fungi and weeds etc etc and the second main “skill” of the conventional agricultural system: “chemicals” became necessary and grew increasingly. Plants fed indiscriminately out of jurisdiction of the sun – for one instance – are overfilled with NPK salts, and, as plant cells would collapse from a saltation – extra water has to be held in each cell and thus the plant increases in size (ditto humans eating such food). Pests are nature's cleaning agents for sickness: We have direct counts of mites on Bio-dynamic and conventional fruit trees (400 vs 6400: See Bio-Dynamic Agriculture Introductory Lectures volume I, Lecture 2). To a large audience at the IFOAM conference 2005 in Adelaide of conventional and alternative agronomists I pointed out that the conventional model of agriculture lacks a bank that would hold the NPK to stop these elements running into rivers causing blue-green algae and that where such bank is present conserving NPK and so lowering input requirements a new assessment of inputs would be required. The bank nature provides is the colloidal nature of humus, of which there is plenty on Bio-Dynamic farms.

Three months later I received a government organisation script indicating that NANO technology will provide a means to replicate the humus ability of “holding elements and release them as directed (???)

The most important single substance in naturally functioning soil is air. We can live for weeks without food, days without water, but only a short period without air. Soil compaction

commences with introduction of water soluble fertilizers. As soon as introduced into the generally well structured soils of my childhood (there were better and less good peasants) worms and microbes take in the NPK and fix it into humus (worm casts). But with further applications this worm activity reduces to almost nothing, because they have lost their natural purpose, to take in roots and rock residue and conserve it for further use in humus. Therewith reduce the worm population and general soil structure. Soils compact harder and harder and heavy machinery has to be used, more chemicals, more weeds. A world wide scenario. Regarding weeds, a brief consolidation of a lecture: A volcanic element rich mountain shows rock on top with signs of cracks through weathering in which lichens obtain a hold. A little further down mosses grow out of the lichen and soil begins to form. Halfway down the emerging soil suits shrubs and bushes. At the bottom valuable rich black soil, with large trees, and possibility to grow desired plants. The history of long time soil development in a brief time frame.

As soon as such soil, as described, compacts the soil development reverses back half way up the mountain and becomes a soil **naturally** suited to undesirable weeds. The weed problem is one of soil biological health. Thistles for instance are put into compacted soils by Nature's sense, because they have jackhammer roots that can still get in and break the soil somewhat.

We have invited you to this field day of the BDAAA to look at the soil structure, colour etc. of a typical biodynamic farm similar to many in climate and size.

Present are at least 50 bio-dynamic farmers producing every product produced in Australia, avail yourselves of this opportunity. Thank you.

Alex de Podolinsky