Wonder-Full to work in Nature and Creation

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Third Session
Address by Alex Podolinsky

I have something else to discuss, which I have looked forward to for many years.

In 2007 I had a visitor who helped put the first 500 pit down. David Marks introduced him and said he is a very good worker - the best helper and practical farmer all round, female or male he had experienced. I won't name this person. He is the only one I know who has three passports: born in Australia, where his parents resided at the time, his mother is Swiss, the father German. He served the mandatory five year apprenticeship in farming, as is today required in Germany and Switzerland – even when taking over the family's centuries old farm – to qualify for the annual government subsidies for farming, buildings, equipment etc. This five year course generally takes place on several farms, with real work, and also includes lecture courses. In Switzerland the lecture subjects do not only cover the conventional fertilizer and chemical subjects, but also spend some time on "organic" agriculture: So I asked him (he had read some of my lectures, but I was not sure of him having picked up major points) "what did you learn about organic agriculture in comparison to the conventional agriculture you were introduced to?" His answer was: "worms and microbes. They free elements contained in plant material, green manure and compost."

Green manure has been used traditionally in European farming. Likewise the manure heap outside the stable, and the collected urine in the underground tanks. There was little permanent pasture in most of Europe (wet, mainly coastal areas, excepted). Crops were rotated and interspersed with, for instance, a two year crop of dense red clover for hay making and eventual green manuring. Very different from so called Australian clover-ley farming, where sheep gnaw off the last leaf before cultivation. Depending on the type of crop, the aged raw dung or liquid manure would be spread.

In Australia real green manuring on wide acres was hardly employed as any growth was needed for stock feed.

None of this – as organic farming - was new, and in my childhood virtually all peasant holdings were closed farm units. Only after availability of artificial fertilisers, were young farmers introduced to "higher production" during "Winter School" courses. Older farmers were dissatisfied with the loss of quality and flavour caused by artificial fertilisers and only after generational changes did fertilising really take off.

Soils had been of beautiful structure; dark with humus content; gently cultivated with no murderous implements in existence; horse and plough in a man's hands and **sight**.

So I asked that question: "what did you learn as to organic farming?" "Worms and microbes to free elements green manure and compost. Worms and microbes to free elements held in plant material." That, as the basis of organic farming.

Now, is that true or is it not true? After a long pause and unsuccessful mumblings – "It is a half truth."

We can come to a point where we must question: "What is truth?" Within a man-made system of mathematics or philosophy, or very much, the "model" of conventional agricultural science, truth can acquire an absoluteness and a kind of finality. Not so, when dealing with the (outside of man) **real** world of Nature and Creation. In my "Christ-Mass 2006", referring to earlier writings of mine, I **observe** that in past lectures I reported what I **saw**, as accurately as I could, and with as much understanding as able at the time. A man-made system can be fixed. **Real** Nature and Creation can change and develop further, and so can man's **understanding**. Speaking of a half truth in that situation leaves appropriately open, but may be without deeper understanding.

Microbes and worms do make elements contained in plant material soluble. And this solubility – since Justus von Liebig – has been a major aim of conventional agricultural science. "Soluble" elements in **water** has become a pre-occupation.

It is true, worms and microbes do this. Our bio-dynamic understanding hooks in at this point. Into what actually do microbes and worms release water soluble elements? Into the soil water? Man designed, fixed "scientific" analytical chemistry testing methods **can** only **react** by suggesting: **water** solubility. And the conventionally trained scientist has to rely on his "objective scientific" (the magic term) laboratory test result. Whereas **human** active perception [for example, having been engaged intensively, full time per day with 500 making: taking dark colloidy (colour and consistency like worm casts – actually even more colloidy than worm casts) 500 out of horns in pre-spring coldness] notices no elements in **water**, but in colloids. Remember, 500 can hold up to 70% of water within the colloid membrane – even when formed into a ball it is able to hold this moisture inside its membrane "skin" without dripping out or evaporating. This could furthermore also lead to **observing** that in the wise organisation of Nature, a recycling of elements, or in the initial act of freeing elements out of rock, the design (as shown by worms and microbes) is to not just place the water soluble elements into the soil water, but into colloids.

And in still natural, biologically truly active soil, full of worms and microbes, should water soluble elements (fresh "organic" manure or artificial fertilizers) inadvertently be applied and get into the soil water, the worms and microbes – as quickly as possible – incorporate these "free" elements into colloids. A "scientist" bound into the system of his science is cut off from Nature, whereas the human active observer remains intimately part of Creation and is therefore able to holistically observe within Nature. (See the Introduction of "Active Perception", Second Edition)

In un-interfered Nature, worms and microbes do not release "free" elements into "water".

So the first step beyond the "organic" methodicity taught to my visitor is to realise the purpose of humus as a colloid. This opens the vista to differentiate between the water soluble elements, provided by Nature's wise **organisation** - within humus colloids, and the conventionally "ideal" – water soluble elements forced into soil water.

This further leads to the human understanding based on holistic active observation: to see that the plant has two root systems; the older darker more vertical water intake roots – to absorb the large volumes of water required for leaf transpiration; and the white feeder roots – in volume much enhanced in Bio-Dynamic plants (see comparative A and B photographs), which enter the humus colloids to take elements from there under jurisdiction of Sun Warmth, whilst at the same time energising Sun Light is taken in by the leaves. Active "glow green" in the leaves indicates this process, whereas under influence of NPK artificial fertilization, leaves become blue-green.

This in turn leads to the realisation that plants have no inherent Warmth organisation like man and animal, ie that Sun Warmth takes on this role in the plant.

Further **human** active perception and **tasting** of natural "glow green" plants notices richer manifoldness of flavours and composition. In contrast the conventional comparative chemical testing method is limited to quantitative component data, having no place in its system of examination for such things as taste.

Comparative active viewing of a natural or bio-dynamic tomato shows a juicy-in-red-flesh-held composition with little and soft ribbing; the taste is of rich slightly sweetish manifoldness, mixed with a non-intrusive noble acidity. The tomato from artificial NPK fertilized blue-green plants has thicker skin and is slightly larger, and when cut open shows considerably larger white ribbing. The part that should be "fleshy", as seen in the natural tomato, is watery and tends to spill out. A sour acidity predominates in greatly reduced flavours. A test comparing nitrate levels in the stem of cauliflower grown either with artificial fertiliser or Bio-Dynamically, showed high levels of bitter tasting nitrates in the conventional plants right up into plant head branches, and none in the Bio-Dynamic plants, which tasted 'sweet'. When cooking

the artificial plants an unpleasant smell resulted. The excessive N(PK) salts forced into plants causes the hard ribbing complementary to the water pockets. Huge conventional bananas have a dryish "mealy" consistency and lack in flavour; whilst slightly smaller natural bananas (at comparative ripeness) are moister and of richer flavours. Natural Carrots contain a smaller and softer inner stem, ditto bio-dynamic cucumbers, which, whilst not as slim as the usual desired Lebanese cucumber, are equally rich in flavour and equally less watery in the centre (and can be grown from own natural seed, whereas the Lebanese cucumber is available only from hybrid seed). The same applies to our entire range of products, ie the consistency of meat is less "fibrous" and more tender and tastier; the grain in a bag "glows as if full of light" (reminding of glow-green) whereas conventional grain is "dull".

The glow-green of especially bio-dynamic plants and their "uprightness" is obvious to any awake observer. Furthermore, very noticeable is the keeping quality of natural or Bio-Dynamic products compared to those artificially fertilised.

What is the cardinal reason for the differences between a plant grown according to the design of nature and one grown by NKP "freely" available in the soil water?

In the design of Nature, as stated, there should be no free elements in the soil water which is required by all plants in leaf for transpiration. In this situation plants take in no NPK with their white hair roots when Sun Warmth is absent. Whereas, whilst in leaf, plants continue to take "pure" soil water up for transpiration (comparable to the need for man to breath in and out).

In natural or bio-dynamic conditions, where ample humus levels exist, elements are available – at all times – when Sun Warmth decrees the plant to feed. The volume of NPK then **slowly** taken up by the plant is **assimilated**, ie becomes part of the "body", or "consistency", of the plant.

Whereas under artificial conditions, when Sun Warmth is absent, NPK in the soil water is "taken up" by the plant, ie **fills** into the plant, **blows** the plant to an unnatural size, colours the enlarged leaves blue green. This NPK is **not assimilated**, does not become part of the "body consistency", ie separates in the tomato into the hard ribbing and the excessive wateriness. The same applies to the hard ribbing (and size) in conventional cabbages and lettuces etc. A huge conventional lettuce is as "hard" with enlarged ribbing as bio-dynamic cabbages.

Assimilation means that what "is taken" in by a plant is transubstantiated and becomes part of the plant, whereas elements "taken up" by the plant via soil water remain unchanged. Additional water is required by the second plant, which then "blows" up the plant, ie Nitrogen does not change into a protein, but remains a salt which may turn to Nitrite. Excessive mineral salt content explains the bitter acidity of such products and their unnatural size as the excessive salt content in each cell must be compensated by an equivalent, unnatural water content, or the plant would be poisoned by the salt. This contributes not only to lack of nourishment value to consumers but also raises health concerns eg methemoglobinemia.

The "spring" glow-green colour indicates the upsurge of life in Winter Sun starved plants. This light activity is present in bio-dynamic plants for most of the year. Such light activity can be demonstrated on any lawn which, in a dry period has not been irrigated and is turning yellow-grey. A two hour sprinkling with a rotary irrigator will give enough water so the plant can transpire sufficiently to receive the essential Sun energy. The plant's "glow" indicates Sun intake.

And last, but not at all least, plants excessively filled with NPK salts, although carrying an excessive amount of water are hindered from absorbing Sun energy by being unable to transpire the natural amount of water required. This is because the salted cells would collapse from saltation, thus denying plants the intake of the Cosmic Sun energy. Leaves are the sole organs on Earth able to create new material substance; in contrast everything else on Earth is a recycling of materials.

Man, and animal, posses an independent Warmth organisation with-in their bodily organisation. It is not easy to experience the lack of this in a plant. I have

sought for decades for an explanatory, experienceable example. The closest pseudo example is hypothermia. Due to a truck engine breakdown, I had to drive a tractor home for some three hours on an increasingly cold afternoon and evening Autumn day, dressed only in a short-sleeve shirt and light jumper. Whilst the experience of "fresh" air, (I set myself to expect) was "exhilarating", I did not fully notice that after a while I did not "feel" the cold any further in limbs, chest and neck areas. I was only aware of the inside of my body and head. At home in a long hot shower, able to use and move my limbs, I found that these extremities – for days – remained a-part from me. It would be interesting to examine these effects on the relevant metabolism, blood circulation etc. Throughout my life I have never had "cold feet or hands". Since the hypothermia experience – maybe aided by age and other factors – hands, but more emphatic, feet, lower legs, knees and lower thigh areas become isolated with cold, and rejoin my body when warmed from outside only gradually: feet first (hot water bottle), with a cold drag in lower legs becoming evident which then slowly recedes when the coldness of knees and lower thighs comes to notice. This again requires time to rejoin the unaffected body. A natural warming from "inside" does not occur as before.

May this example stimulate insight into the plant's absence of an inbuilt warmth organisation, and the plant's "joy" in becoming "glow green" through Sun stimulation.

Future Earth biology needs the full Cosmic-Sun-Warmth-Light-Energy input via leaves. Earth's coal, oil and gas energy reserves originate from the same leaf resource (see "Cosmo-Earthly Ecology" DVD).

In this script I will not use pictorial material, but describe in words the differences in appearance (eg. cut open tomatoes), plant expression and taste in relation to plant feeding via humus or elements dissolved in soil water. The exception is of the two vine leaves (pictures C and D) of similar variety and proximity: the "blown-up" blue green artificial leaf and the smaller, light green, light ribbed, finely ("artistically") shaped bio-dynamic leaf.

My intention is (like with farmers) to encourage the reader to a c t i v e l y visualise for himself. My book "Active Perception" (2nd Edition being finalised) introduces the methodicity of such perception.

Further examples:

- Artificially fertilised citrus products taste "acidy". The skin of the sections are thicker and harder to chew-up - especially noticeable with mandarins. There may be plenty of watery juice. Natural oranges (grandmother's plum tree: as described in "Bio-Dynamics Agriculture of the Future" and "Living Knowledge"), or citrus available 70-80 years ago, or truly organic or bio-dynamic oranges today, are "sweeter" and full of flavour. [Eight fruit sugars have been identified as **essential** to man. However, these are available only in **ripe** fruit. Due to marketing requirements and regulations, oranges are one of the few fruits available to the consumer in a state of such ripeness. When man can not obtain these fruit sugars his craving is satisfied by excessive intake of commercial sugar, impairing health (diabetes), body weight etc. Apples, rather than pears, which do not transport as well when picked suitably ripe, can also provide the consumer with the relevant fruit sugar. When freshly juiced (hand operated semi-commercial fruit press) and frozen in plastic bottles, ie not heat sterilised, apple juice can supply this essential fruit sugar to the consumer throughout the year.]
- Grapes and grape products likewise show the qualitative differences of "water soluble" feeding through soil water or natural feeding through humus and Sun jurisdiction. "Artificial" sultanas are thick skinned and blown up, natural sultanas smaller, fine skinned and full of essential sugar and flavours. Ditto with wine.

The plant "pests" and fungi which "attack" plants are put there by Nature to get rid of unhealthy growth. The blown up vine leaf (picture C) attracts excessive fungi or pests (see also "Bio-Dynamic Agriculture Introductory Lectures", Volume 1 Lecture 2) and requires dangerous chemical sprays. The grapes will be typically "blown up" with water containing non-assimilated nitrogen. The botrytis organism is attracted to such nitrates and enters the grapes before these are suitably mature and suck the grapes dry, necessitating too early - often quick machine picking – affecting quality, plant sugar etc.

This article is directed primarily to the consumer, citizen or farmer.

The importance of not accepting the "half-truth" statement of "worms freeing elements to water solubility", which suits the common "scientific" model of "Agriculture" - but rather l o o k i n g further into the design of Nature, as I have done in all my work, does become apparent. Nutritional science also operates according to a model full of numerous, measurable items that are to be supplied and added to the "balance" of an essential total nutritional ideal. I prefer to trust the organisation of Nature to supply a full supplement when plants are grown naturally, and man – by instinct and understanding – chooses his food intake (see Bio-Dynamic Agriculture Introductory Lectures, Volume 3, Lectures 1 and 2).

Conclusion:

This has been contributed from o p e n human observation of Nature brought to consciousness. It makes no "scientific" claim. I feel sorry for those who try to "prove" their theory in a "scientifically" acceptable way, able to be "published" in a recognised journal; a time and money consuming effort which ends up in archives, often never to really contribute. In such, little productive purpose can be found.

It is left to the conscious reader to handle a worm cast or 500 to see whether worms put water soluble elements into soil water or encase these in colloidal membranes; or to see the effect of applied "organic" chicken manure or blood and bone on immediate dark blue-green plant growth, and to look for the prescribed symptoms of nitrification of the products and to taste the bitterness associated.

Such plants are "un"-natural, and "pests" are called forth by Nature to get rid of sick plants (see exact figures in "Bio-Dynamic Agriculture Introductory Lectures", Volume 1 Lecture 2). "Pests" are healthy agents of Nature, the real pest being the artificial plant.

It is everlastingly wonder-full to work in Nature and Creation, oneself a conscious part of Creation.

By enabling plants to function per design of Creation the plant equivalent to the human immune system is strengthened from healthy bio-dynamic seed and soil. Similar in the human environment with healthy milk, fruit and vegetables from birth onwards and the odd challenge of children's diseases to awaken and strengthen the immune system in a more country type environment of grass, soil, cats, dogs, wider ranging animals and water. "Immunisation" is akin to the preventative spraying of artificially grown vines before they even show symptoms of a disease. Lack of a vital immune system is the cause of the increase of so many "disorders".

"Science" – today – uses a "working hypothesis", in place of an observation like that of the 500 colloids; and statistical "evidence", in place of an **understood** concept – with "side effects" like those of Thalidomide or of ever so many medical drugs or agricultural chemicals, which have endangered lives and had to be taken off the register.

What is the purpose of a lengthy, time and money consuming "study" to "prove" that bio-dynamic roots - namely the white hair roots - exude into soil activatingly. A farmer can readily see in a short time how 500 stimulates soil structure, humus development, and an increase of white feeder roots. The **pictorial** evidence of pictures A and B showing how the white hair roots effect a darkening of the biologically inactive soil besides and below these roots – is indicative of an exudation readily to be seen.

The white hair roots aid the activity of worms and microbes in new humus production, whilst also being the plant's main feeder roots, as is clearly described in "Bio-Dynamic Agriculture Introductory Lectures", Volume 1, by the example of 500 colloids filled into a preserving glass and buried in Spring 10cm below pasture – after six weeks the jar was tightly packed with white feeder roots with no dark humus colloids remaining.