

## Knowledge

Written by Jeff Poppens  
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Steiner begins the second lecture by giving an overview of the whole agriculture course. We will spend the first lectures gathering knowledge so as to recognize the conditions on which the prosperity of agriculture depends and observing how agriculture lives in the totality of the Universe. In the later lectures we will draw the practical conclusions, but for now we must gather, recognize and observe.

Notice the Goethenistic approach. We are not starting with a problem and hypothesis, as in Newtonian Science. Instead, we are looking for information, conditions, and how something (agriculture) lives. There are no boundaries to where we will look. Because of their diversity, I will number the various items of knowledge.

1. The first condition is clear. "A farm is true to its essential nature if it is conceived as a kind of individuality entity in itself- a self-contained entity... whatever you need for agricultural production, you should try to possess it within the farm itself (including in the farm the due amount of cattle)."

Steiner insists from the start that a farm needs livestock, and then explains why. "It is not a matter of indifference whether we get our cow-dung from the neighbor or from our own farm." What makes our farm's cow-dung different? The humus content of a soil, with specific microbes, is formed in a large part by the animals on it. They eat the plants growing on the farm, digesting and transforming the microbiology in their stomachs. A cycle of rejuvenation happens as it's returned back to the soil and new plants grow there.

He justifies this need for a farm's own livestock by considering the Earth and the influences from the Universe beyond. That means calcium forces in the manure and silica forces communicating intelligence from afar. This will be considered from various standpoints, and now we will begin with the soil.

1. The soil is more than its mineral content and humus. Soil contains not only life but an effective astral principle. Astral refers to the stars, the influences from beyond the realm of earthly life. This inner life of the earthly soil, the fine and intimate astral effects, is different in summer and in winter, which has significance in practical life. We'll learn how to use this

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difference when we bury cow horns.

2. After this second item we have gathered, a third one is added. "The surface of the Earth is a kind of organ in that organism which reveals itself throughout the growth of Nature." It is like a human diaphragm. In the agricultural individuality, all the plants, animals and humus live in the belly of an organism whose head and nervous system are underground. "There is a constant and living mutual interplay of the above-the-Earth and below-the-Earth."

3. We are next begged to observe where these influences are localized. Activities above the Earth are immediately dependant on the inner plants supplementing and modifying the influences of the sun. The distant planets work upon all that is beneath the Earth's surface, assisting those influences which the sun exercises from below the Earth.

In chapter one we were introduced to calcium and silica, and their relationship to the inner and distant planets, respectively. Now we have their locales. Again, we are still just gathering various items of knowledge. Notice that both sets of planets work with the sun. inner planets supplement and modify, while the outer planets simply assist.

1. It is through what are commonly called sand, rocks, and stone that we have influences that depend on the farthest distances of the Universe. They are the most important for the unfolding of the growth-processes. This is where life comes into the soil, through the communication and intelligence of silica.

2. You may wonder how what is poured down, so to speak, gets carried back up into the plant. Everything in the nature of clay is a means of transport. Adding clay to a sandy soil and adding sand to a clayey soil are old-time farming recommendations. The greater surface area of clay particles facilitates transportation.

What is drawn in from the Universe by the way of silicon and the root-nature, "head" beneath the soil, is able to be led upward through the plant by the clayey substances in the soil. Clay is the carrier of the upward stream of silica's activity beneath the soil.

1. Plant-growth in the air above the soil is a kind of digestion. The cycles of animals and crops on a farm create continual compost possibilities. A true mutual interaction arises when microbes and fine homeopathic substances are engendered by the water and air above the earth through the lives of plants and animals.

All that is above the soil in this kind of digestive process must be drawn downward into the soil. Limestone in the soil and in homeopathic doses in the air is there to carry into the soil the earthly process of digestion. Farmers spread lime on top of their fields, knowing it will work its way downward.

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