

Scientific Aspects of Agnihotra: Soil and Agriculture (Part 8)

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In the last article we talked about the experiments on Homa Farming done at Palampur Agricultural University, Himachal Pradesh, Northern India. The experiments showed increased yields, better disease resistance, and better quality of the produce.

The second part of their research was about soil health, a very important factor for future production.

More research was done on the effects of Homa Farming on soil health at Dharwad Agricultural University, Karnataka, Southern India. Four M.Sc. theses brought some interesting results. But before we discuss these results (in the next article), let us first look deeper into the situation of our topsoil, which is of utmost importance for the future of mankind.

A Sanskrit text written in around 1500 BC noted, "Upon this handful of soil our survival depends. Husband it and it will grow our food, our fuel, and our shelter and surround us with beauty.

"Abuse it and the soil will collapse and die, taking humanity with it."–George Monbiot, "Ploughing On Regardless," *The Guardian*, 25th March, 2015.

Thus, abuse of soil mentioned as a possibility 3500 years has developed into a likely scenario now, as we can see from recent reports from FAO, the <u>Food and Agriculture Organization of the United Nations</u> from two years ago.

An article in *Scientific American* makes it very clear that we live in a kind of emergency situation, see the following article:

ROME (Thomson Reuters Foundation) – Generating three centimeters of top soil takes 1,000 years, and if current rates of degradation continue all of the world's top soil could be gone within 60 years, a senior UN official said on Friday.

About a third of the world's soil has already been degraded, Maria-Helena Semedo of the Food and Agriculture Organization (FAO) told a forum marking World Soil Day.

The causes of soil destruction include chemical-heavy farming techniques, deforestation which increases erosion, and global warming. The earth under our feet is too often ignored by policymakers, experts said.

"Soils are the basis of life," said Semedo, FAO's deputy director general of natural resources. "Ninety five percent of our food comes from the soil."

Unless new approaches are adopted, the global amount of arable and productive land per person in 2050 will be only a quarter of the level in 1960, the FAO reported, due to growing populations and soil degradation.

Soils play a key role in absorbing carbon and filtering water, the FAO reported. Soil destruction creates a vicious cycle, in which less carbon is stored, the world gets hotter, and the land is further degraded.

"We are losing 30 soccer fields of soil every minute, mostly due to intensive farming," Volkert Engelsman, an activist with the International Federation of Organic Agriculture Movements told the forum at the FAO's headquarters in Rome.

"Organic (farming) may not be the only solution but it's the single best (option) I can think of."

(http://www.scientificamerican.com/article/only-60-years-of-farming-left-if-soil-degradationcontinues)

This article advocates organic farming, definitely the first step we have to take. But as pollution of soil has gone so far, that will not be enough. Homa Therapy techniques have to be applied to restore soil health, as the following article written by Shree Vasant Paranjpe shows:

HOW HOMA FARMING WORKS

Vasant Paranjpe

The soil, water, atmosphere, subsoil water are all polluted by the metallic, nonmetallic and gaseous toxicants of different types.

The soil in large areas of forest is nearly dead.

THE SOIL NEEDS TO BE REJUVENATED FIRST BY HOMA THERAPY.

In the rejuvenated soil different types of microorganisms, starting from the level of viruses, bacteria, fungi, algae, thrive.

Thus, a healthy micro-flora and micro-fauna is created.

This gives rise to a micro environment or micro-system which is comparatively less toxic to the growing plants.

The soil which has now become a living soil because of the presence of microorganisms has all the chemical components useful for life in the form of carbon, hydrogen and oxygen. According to modern theory, these three together form life in the form of bacteria. We have e.g. nitrogen fixing bacteria, also bacteria working on phosphorus content of soil.

After the creation of such micro environment, creatures like earthworms thrive. They eat the soil, digest it and again replenish the soil.

It has been found that when Agnihotra ash is added to normal soil it increases the water soluble phosphate content of the soil and the nutrients are absorbed readily by the root hair of the plant.

Absorption of mega nutrients like Nitrogen, Phosphorus, Potash, because of small cells and active transport, is helped by Homa atmosphere.

We have to tell the people this is how Homa farming works.

When you perform Agnihotra and YAJNYA or other HOMAS in a garden, an atmosphere is created that is conducive to growing and therefore attracts the nutrients, insects, microorganisms and animals that would be happy and thrive in that environment.

This, of course, is because nature is so wonderful, it automatically benefits the soil and the plant, and the plant thrives.

Same thing happens when you put the ash or use Agnihotra ash water but it works more for the plants individually – by putting the ash around the individual plants or in the beds or spraying the plants, those elements that are best for that plant are attracted to it and it thrives.

Of course, we have to use basic operations of farming like weeding, organic composting, spraying with Agnihotra Ash solution, etc.

PRACTICE OF HOMA, HOWEVER, IS THE KEY.

Shree Vasant gives clear guidelines for sustainable farming practices. The article was written in 2008 or a little earlier.

Good that, in the meantime, quite some research has been done, some of which confirms by means of modern science that Homa techniques really work well to restore soil health. This research work was mainly done at Dharwad Agricultural University, Karnataka, South India. We will have a closer look at the results in the next article.