

Greengold

Environment Protecting Process for a Revival and Regeneration

of Damaged and Polluted Natural and Cultural Landscapes, Plants, Liquid Minor, Compost,

Contents

Pre	face		3
1	Intr	oduction	5
	1.1 1.2	The current situation Greengold Produkt Specification	6 7
2	Fun	damental principals and development of Greengold	9
	2.1	Participating scientists and references	9
	2.2	Fist steps in the development of the active compoud "Natura-	0
	2.3	The scientific fundamentals of Greengold	9 10
3	Effe	ct of Greengold on soil and plants	13
	3.1	Effect from damaging environmental influence and toxic	
		blockades	14
	3.2 3.3	Summary of the effect of Greengold Photo doumentation	15 17
4	Usa	ge of Greengold	32
	4.1	Meadows and agriculture	33
	4.2	Horticulture	35
	4.3	Fruit trees, deciduous trees and conifers	37
	4.4	Composting Bondo, rivers and lakes	38
	4.3	Ponds, rivers and lakes	40
5	Ana and	lysys and applied examinations in Germany, Russia the Philippines	41
	5.1	Institutions	43
	5.2	Reports and scientific results	43
6	Со	ncluding Remarks	51

Preface

Natural and cultivated soil is constantly deteriorating. All types of soil have suffered and have become partly completely infertile. The reduction in value is progressive. This process is common knowledge. The great fertilizing industry originated through the attempt in providing the soil from the outside with nutrients. However, incomplete knowledge of the natural processes in healthy and intact soil have led to an unavoidable result: pollution, restriction and blockades of the metabolism and electrochemical processes occurring in the soil as well as its whole natural organism. It is these blockades that prevent the so called capillary effect i.e. the transportation and supply of nutrients from the deeper layers of soil. Therefore, one should no longer refer to the myth of soil that is lacking in nutrients or exhausted but rather, one should find a newer and more exact meaning by referring to soil that is blocked or polluted. This is because nutrients have existed in all soil for millions of years. And it is through rain that these nutrients are additionally able to enter into the soil. It is crucial that the active processes take place undisturbed in the soil. Therefore, one can assume that a natural, permanent fertility of the soil can be possible.

The immune system of the plants becomes weakened through restriction, pollution and blockades of the natural functions of the soil. These are combated with an increasingly sophisticated and complex usage of chemical pesticides and a distinct supply of nutrients. These achieve a big harvest as usual. However, the toxic blockades in the soil and plants increase. This prevents the natural fertility of the soil further and also affects both the quantity as well as the quality of the harvest. Even with the exclusive use of organic fertilizers, one is becoming increasingly confronted with the problem of toxic blockades and requires an acceptable solution urgently. This is because the consequences for the water used for domestic use and the procurement of drinking water are obvious. The pollution of the whole food chain and the effects on human health are alarming. If one could re-create the conditions and functions of a natural fertility chain in the soil, then the destructive cycle could be stopped.

The German biochemist, physicist and soil scientist, Professor Hermann Josef Steinbach Ph.D, together with famous international scientists in a study that lasted almost 50 years-comprehensively, described the active elements and substances in the soil as well as the biological and electrochemical forces. On the basis of the molecular chemistry as well as the interfacial chemistry and particularly the hierarchical order of the soil elements and substances with respect to the amount of information possessed regarding the fertility of the soil the scientist developed an active "function complex" for a natural soil treatment. The gradual creation of a good soil structure and a balanced mixture of the soil components (texture) will render soil in an ideal state of natural self-regeneration of fertility. Toxic blockades will disappear and the conditions for healthy growth after recurrent treatment will be restored -even in problematic soil. The water storage capacity of the soil will increase. Even without the use of mineral fertilizer, an amazing growth was experienced in soil lacking in nutrients when treated with this active compound.

These are the results of this German scientist. The product that was developed and manufactured under his guidance has in the meantime reached a conclusive standard. This product will be introduced under the name **Greengold**. **Greengold** is neither an inorganic nor organic fertilizer. More precisely it is a *function*, that affects the whole natural organism in the soil through the delivery of molecular structural information. It dissolves toxic blockades, recreates the natural organism in the soil and introduces a natural fertility that is typical for the soil.

In the face of the growing world population, the increasing pollution of agricultural soil and water and the critical food situation, one can hardly appreciate this innovation highly enough. It represents one of the most valuable inventions of this century. This product was highly commended and was regarded by the United Nations as one of the eight most important innovations to save mankind. Prof. Vojtek Holly of the Food and Agriculture Organisation (FAO) described the results of this product as follows: "The effects after the treatment with this product is that of a long term one (6-8 years). In some cases the plant growth increased from 10% to 300%. An increase by 50% was achieved with vegetables".

Even more important than the obtainable quantitative increase in the harvests is the significant and apparent increase in the contents. Taste, appearance, storability and durability were significantly increased. The advantages and many uses of **Greengold** will be described in detail and the results will be verified through the portrayal of scientific research. However; the amount of uses that will result of this brilliant achievement will only become known after blanket coverage in the years to come.

The German Professor worked all his life on this invention. His most ardent wish was that mankind would benefit from it. He reminded that the nature created by God was completely flawless. This is also relevant for the soil and the world of plants. The right understanding of the things and their order are the essence of being. A duty results from this familiar creation. The real problems of our time are ignorance, inexperience and above all superficial knowledge. The advancing forms of polluting operations are destroying the natural balance in the ecological system. This affects the natural powers of the construction combined with the powers of downfall and self-destruction. The results are disturbed growth, increased diseases and excessive destruction. All organic organisms are more or less affected. How can things improve again? How can the natural structural and regeneration order be stimulated and realised? These questions were the leading motive of the lifelong research work of this German scientist.

He was able to construct the *function* of a natural substance based on his molecular concept and theory of boundaries. Its molecular structural information affect the qualitative potential of a complete system. They are obtained through a special multistage process on the level of molecular vibrations of a defined group of elements and substances. Using this *function* the creative potential of this natural structural order of these elements and substances of solid structure can be safely transferred to water, soil and plants. Hence, the reorganisation of the natural forces and potentials are induced. The growth improves both in qualitaty and quantity. Thus, the whole food chain will undergo a change that has a positive effect on the human health. One can presume that this product will change the complete dietetics fundamentally.

Germany, 28. April 1998 / 1. Muharem 1419

1 Introduction

The following portrayed process (description of product **Greengold**) is based on a biochemical / physical active substance, that combats the increasing pollution of natural and cultural surfaces.

Greengold is used for the treatment of:

- Soil and similar soil substatums
- Agricultural land
- Plants, trees and forests
- Composting of organic material and waste
- Water and Ponds

Greengold achieves the revitalisation of the natural fertility of the soil with the gradual production of a suitable compound of its natural components (texture). The complete soil assembly (structure) is significantly improved. The soil organism improves with the passing of time. Thus, healthy and effective growth conditions results.

In a joint study that lasted almost 50 years, leading scientists of different faculties and international organisations for environment and nutrition studies were able to find out the causes of toxic blockades in the above fields. At the same time they were able to work on the development of a neutralising process.

Numerous examinations and long-term studies led to the recording of over 45.000 individual data. The evaluation of these results was the basis for the scientific development of this process. Intensive research work in the last three years has led to a standardised product that

- dissolves toxic blockades,
- improves the condition of the soil,
- intensifies the metabolic processes,
- encourages the ecological balance,
- is in the long run not toxic for humans, animals, soil, plants and water.

Today, this process is superior to all known soil and plant-fertilising substances. The damage of natural and cultural areas can be halted and reversed through the employment of **Greengold**. The financial and technical trouble is therefore, far less than those for conventionally practiced methods. Consequently, this process represents a real innovation in agriculture, forest and water sciences.

1.1 The Current Situation

It is becoming increasingly difficult to retain satisfactory artificial soil fertility. To attain constant yields, the employment of mineral and organic fertilizers as well as chemical protective substances for plants is continuously rising. In areas with light rain the extent of artificial irrigation has been exaggerated. The ecological and economic limits of this way of science have already been reached. Many examples in the whole world prove this and compel more and more agricultural concerns to cut down on production.

After decades of intensive cultivation using fast-working fertilizers and insecticides, all types of soil showed a clear change in texture and structure. Thickening, erosion, karsting and the resulting reduction of yield are the obvious results of destruction of the soil-life through intensive physical handling, shortened fruit periods and of the pollution that leads to blockades in the metabolism of soil and plants.

The natural fertility of cultivated soil and the safeguarding of the water budget are decisive for the profitability of agricultural areas that have already been used and re-cultivated. A sufficient food supply can only be insured, through measures of re-creation and stabilisation of a permanent soil fertility for the increasing world population. Consequently, the regeneration of cultural and natural areas are urgently needed. This takes into consideration the whole food chain and the whole ecological system.

This has already been recognised in the forties and one started to reconsider the whole science of soil and plants. It took 50 years for a product or process to be developed, that does justice to the above mentioned problems and fulfills the following criteria:

- Soil texture: Natural existing nutrient-reservoirs are re-developed and a healthy balanced composition of the soil components (soil structure) are achieved.
- Soil structure: Building of a stable and granular soil structure and an optimal soil climate.
- The ventilation of the soil is improved. Water is absorbed and stored better.
- Nutrients, trace elements must be made available. Microorganisms and the whole soil fauna are replaced in their optimal condition. Additionally, negative influence that could hinder or destroy them are prevented.
- Optimisation of the symbiosis between soil and plants.
- The elimination process of the toxic blockades are introduced. Toxic waste is made harmless
- Revitilisation of the polluted systems, soil, plants and water.
- Not toxic for humans, animals, plants and water.
- No extra costs in comparison with conventional processes.

In short, one can say that the natural synergy of the live and metabolic process is optimised.

1.2 Greengold Product Specification

Greengold is a pure biochemical / physical compound in a microscopic form. During the manufacture of **Greengold** minerals, trace elements and other substances - in fixed pro-portions and groups - are subjected to a special physical process and laminated (rubbing). This procedure leads to the construction of special required structural information. Through exponation, the wealth of elements and substances is formed in an extremely clear and structured way in line with its position and its natural hierarchical structural order. The hierarchical order of the elements is determined by its respective amount of information for the complete system, e.g. fertile soil. Thus an active compound is created whose function is included for the intact natural order of the elements and substances, respectively. Also, it is capable of transferring this function to the systems: water, soil and plants.

Organic salts	Organic combinations	Trace elements
Calcium phosphate	Organic acids	Iron
Magnesium phosphate	Plant extracts	Cobalt
Potassium phosphate	Polysaccharide	Copper
Silicic acid	Polyelectrolyte	Molybdenum
and others	and others	Boron, and others

The following guidelines apply to Greengold:

- There is no danger from **Greengold**.
- This also applies to inadvertent abuse as well as the use of too high a dosage.
- **Greengold** is not subject to any restrictions according to the spirit of the chemical law, the laws of hazardous goods or special rules for transport by road, sea, waterways or air.
- **Greengold** contains no heavy metals, halogenous organic combinations, pseudocholinesterase inhibitors and growth hormones.
- Greengold contains no genetic manipulated or radioactively processed substances.

These examination results were observed and confirmed by the German Fresenius Institute using standard procedures that are approved worldwide.

The following aspects were taken into consideration in the development and manufacture of Greengold:

- Comprehensive spectrum of effectivity, reduction of complicated multiple mixtures;
- Durability due to longer duration of effectiveness;
- Constant physical and chemical stability; no problems through long-term storage;
- The novel concept of effectiveness results in a reduced volume of material,
- which in turn minimises the volume of packaging and transport costs.
- No formation of resistance

2 Fundamental principals and development of Greengold

The analysis that was carried out at the beginning of the research took place mainly in Australia and the USA. The substances that were used in the first few years were known as "A-Product". In the course of research the active substances were constantly modified. New substance groups came into being. These were known as "A.B.C." or "A.B.C.-Product". The product that was finally developed and standardised in the middle of the nineties was known as "ABC-Plus", "Alpha 1010" or "Alpha 19". This product will be introduced in this outline as well as the product **Greengold** chosen by us.

2.1 Participating scientists and references

The development of the active compound **Greengold** took place under the competent guidance of a German scientist. He had initially worked for 35 years as a researcher in the USA and Australia. He was finally able to complete the development of his lifetime work after 15 years of research in Germany. The following persons -as well as many more- have helped him with his scientific work that led to the development of **Greengold**:

Prof. Dr. Fish, The Department of Agriculture, Victoria, Australia

Prof. Dr. Ernest E. Lord, The Commonwealth Scientific, Industrial and Research Organisation and F.R.H.S. Melbourne, Victoria

Prof. Dr. Dr.Voitec Holly, The Food and Agriculture Organisation of the United Nations (FAO)

Prof. Dr. A. Mc. Intyre and Prof. Dr. Bender, University of Pennsylvania, USA; and many others.

2.2 First steps in the development of the active compound Greengold

At the beginning of the history of the development of **Greengold** that goes back to the fifties, it was the intention of the researcher to develop a soil fertilizer that would work against the then obvious soil thickening problems that would develop in modern agriculture. The aim was to achieve a long-lasting loosening of the soil, without having to use a costly mechanical training process. During his research, the scientist stumbled on the electric charge of the soil particles, so that the usage of electrostatic powers of opposite charges was presented. He generated a macromolecule on which the soil particles could settle down on in order, and thereby get rid of their thick "packaging". The result was an improvement in the structure of the soil, that proved an improvement in the storage ability and ventilation. The polysaccharide derivations proved themselves to be especially stabile and met the conditions of the durability of the product. After these first milestones, more questions arose that in their turn led to new solutions and that allowed **Greengold** to develop in its current form.

2.3. The scientific fundamentals of Greengold

2.3.1 Molecular concept and the hierarchical order of the elements

The research work that lasted many years resulted in the development of an ecologically useful active compound that has no negative effects on the whole ecological system and which at the same time returns the soil, plants and water to an intact condition and keeps it that way. The basis of this was scientific observation and research into the relationships of the ecological system, and the theory that was developed by the scientist of an expanded molecular concept within the framework of the hierarchical order. This theory gives a completely new answer to the existing question where the individual character of every single element is explained. And more importantly how this individuality of this structural reaction is transmitted, starting with simple chemical reactions and ending with a complex ecological system.

The effect of the relationship between the chemical elements was firstly examined. The important aspect was which positive functions did they exert on the natural organisms, and what role the relationship played with the other elements. In addition, unexpected discrepancies arose between the individual traits and the functions of these elements in the ecological systems. Furthermore, the concentration and amount of the material was also found to be significant. Taking into consideration the significance of these findings, a new molecular concept inevitably resulted that is influenced by the fundamental understanding of the hierarchical order of the elements and their systemic effect.

More than 45,000 scientific facts helped the scientist to realise that he could construct a function whose information contents are accessible to an ecological system. At the same time, it does not hinder or block an ecological set of reactions through a too high a material concentration.

The molecular concept delivers explanations about the process of the construction of the information and the transferral of information to other systems.

The ability to transfer the qualitative traits of the chemical elements and to also do without highly concentrated doses of these elements with all their harmful side-effects, constitutes a revolution in agriculture. This ability is the elementary part of the development of the active compound **Greengold**. Without the understanding of this adaptation process between the active compound **Greengold** and the ecological systems that are to be treated, **Greengold** in its present form would be unimaginable.

Chemistry breaks up the complete structure of the material into single molecules or atoms and observes these in isolation from their actual surroundings. The general opinion is predominant that prevailing information is given by the number or situation of peripheral electrons, the size of the bond angles and atomic weights. Because the molecular level cannot handle material qualities like temperature, hardness, lustre, strength, conductivity, elasticity etc., this method cannot deliver qualitative results but merely quantitative ones. It must be stressed that the context of the system must not be lost sight of. Thus, diverse effects with natural organisms from toxic substances of an identical concentration can result. It is exactly this contradiction that requires a different level of coding of specific information of elements on a different level. This coding cannot be offered by classic Chemistry.

The theory of the molecular concept assumes the presence of mechanical vibrations, that code and conserve through their dynamic information. If one considers Braun's molecular vibration to be a form of basic vibration, then this characteristic of vibrating information modularizes every single element. Because this takes place in small dimensions, it can therefore not be observed analytically. In particular, through analysis and observation atoms were found to have strong boundaries. Only Heisenberg's uncertainty law is mentioned here.

It is in the nature of vibrations that they are relatively simple to change or transfer. A result of this conclusion was the construction of an existing hierarchical order by the German scientist. To visualise this one can imagine a clock. The most important elements are visible to the eye: the hands and the face. They contain the information of the *clock* system. However, without the help of the clockwork with all its hidden parts, the hands and face would be unable to fulfill their job. Elements of a lower hierarchical order initially make the correct work of the highest hierarchical level possible. When only a single tooth breaks, the whole *clock* system becomes less efficient or the activity comes to an end.

Thus, the hierarchical level of an element defines its content of information within a system rather than its meaning for this system. The higher the content of information, the higher it is classified in the hierarchical system. It is therefore wrong to classify elements by the amount of times they occur, i.e. their quantitative meaning (e.g. the respective concentration in the structural reaction).What is correct, is to make use of the information content of the elements as a differentiation criterion. Because in its sense, all elements are essential. Owing to the results of the research, the chemical elements were grouped according to their individual traits, the new functions that resulted from them and the information content that they submit to the surroundings. This resulted in new substance groups. Certain chemical elements are dominant. However, these other elements are arranged in a certain proprtion to aim for the desired effect. The effect of these substance groups is dependent on the quality and quantity and is absolutely fixed.

It was now possible with this knowledge for the scientist to develop a product that could influence an eco-system positively, without any chemical or genetic manipulation.

There remained only three vital problems to solve:

- 1. What diverse information was needed for this desired revitilising function?
- 2. How can one combine each separate piece of information to the planned functional information?
- 3. How does one supply this functional information to the treated eco-system?

In order to solve the first problem many trials and calculations were necessary until the researcher finally reached a completely satisfactory combination that is contained in the product **Greengold**. For the second problem he used the already mentioned knowledge that oscillations of the information not only vary, but can also be transferred. He therefore dissolved the elements in destilled water, whose information oscillation was required. In this phase the microcosmic dimension of the vibrating atom of the information oscillation becomes significant. The high concentration of the dissolved parts in water, resulted in mutual influence in the form of electrostatic interactions, that negatively influences the vibrating activity, or leads to extinction through the mutually varying oscillation spectrum.

Consequently, the scientist reduced the concentration of the dissolved parts through exponation to a value that eliminated the probability safety margin of the mentioned problem. During the exponation process, each dissolved element transfers its oscillation information to the orderly structure of water. At the same time, the dissolved gases in the water and their inclusion in the orderly water structure is of great importance. Gradually, information of the required function results out of the single pieces of information. This is brought out by the increase in the order of exponation and establishes itself into a clearer and more stable manner.

The question that remained was that of finding a suitable transmission medium to transfer the concluded information of the function. Water is also here a suitable substance, because it is, very practically, everywhere in nature and serves as a dissolving agent and transporting substance of nutrients. The transportation is finally supported by a phenomenon that is associated with the hierarchy of the elements: the *hierarchy of the solvents*. The liquid of higher structural firmness and density of information serves as a transportation medium to the adjacent fluids. The dominant fluid is **Greengold**, so that the created function can be taken over by the eco-system. This process takes place in the single fluids or the elements that are related to each other, namely in their outer boundaries. These so-called boundary phase areas, have a static relationship to one another They show the highest activity action and reaction in this zone. Every action on the phase boundary area of a fluid or its elements, influences the whole structure of the fluid or rather its atoms. The less the defence ability of a system in the face of these actions, the stronger its actions will inevitably be and thereby, the adaptation of its structure. Therefore, a dominant system i.e. one with higher energy action can transfer its characteristics to the boundary systems with lower active energy.

2.3.1 The "feinstofflich" active compound Greengold

Material that has been exponated is highly diluted and it is described as "feinstofflich". The important thing is that every biological substance must be diluted in such a way so as not to disturb the metabolic processes. This is so as to balance the available functional defects. The minimal concentration of the nutrients is responsible for the strong growth effect that stimulates biological processes. In contrast to that are the findings of Justus Liebig, that state that withdrawn soil nutrients must be sufficiently made available. However, the addition of synthetic fertilizers, does not automatically balance the withdrawal of organically bound materials. Quite the opposite, agriculture scientists have established a decline in the tendencies of the soil fertility. Disturbances in the natural organisms are caused by over-fertilization.

However, the effect of the tiniest amounts has through science and research in natural medicine become explainable. Many active substances exist in nature in a highly diluted, "feinstofflich" form e.g. minerals and other dissolved substances that exist in traces. If we regard these as irritants, then the following rule applies: "Small irritants fan the ability to live, medium encourage it, strong hamper it and the strongest destroy it." It was found out that for example with a dilution grade of 1:20.000, no effect of **Greengold** could be observed. A dilution grade of between 1:700.000 and 1:800:000 made vital processes of yeast cells grow immensely. In extremely rare cases, a mineral substance for example or a trace element occurs on its own. However, it is mostly related to many other elements. These are the so-called *Carrier-substances*, that make certain nutrients available to the organisms. Therefore, it is not the addition of certain substances that treat the soil, but rather the systematic construction of an active substance that is meaningful. This construction orients itself on the natural construction plan of nature and adapts itself to the sensibility of the biological process.

3. Effect of Greengold on soil and plants

Plants must be provided with all the essential substances. The very complex system of the soil that is influenced by diverse factors plays a special role here. The soil is responsible for the firm anchoring of the vegetation and serves as a depot for nutrients which is exploited for the growth of the plants. The soil serves, at the same time, as a reaction area for diverse metabolic processes, that maintain the material and nutrient cycle. It is within this cycle that building blocks of the plants are continuously newly combined and formed so as to re-assist the deposition of nutrients needed for the growth process. Microorganisms are responsible for the decomposition (formation) of the building block combinations (parts of the plants) and the resulting readiness for the separate building blocks.

One of the most important representatives is the symbiotic living yeast *Mykorrhiza*. It settles itself on the fine root network of the plants. A symbiosis exists between the plants and the yeasts in such a manner, that the yeasts of the plant parts live in the roots, and in return various required elements for the plants are provided, which they would not have been in a position to achieve on their own. The deposition of concentrated substance in the capillary roots and the outer bark of the roots prevent an optimal formation of mykorrhiza and the absorption of nutrients. Therefore, the regeneration of the root system, especially the finest roots and capillaries and the strengthening of the mykorriza, are very important.

The plant growth is encouraged or made possible by means of Synergies between the microfauna of the soil and the plants living off it. To achieve a high effectivity of the mentioned microfauna, a good supply of oxygen, predominantly of aerobic, microorganisms should be enabled. The airing of the soil is therefore very important. The capillary and crumbly structure are responsible for it. This soil structure describes the arrangement of the defined soil particles in the soil (e.g. sand or sludge particles).

For example loess and loam soil both have a high percentage of fine particles but completely different structures. Whilst fertile loess soil has an excellent capillary and crumbly structure, that is essential for good ventilation and balanced water and temperature, loam soil on the other hand has a thickened structure with accordingly worse parameters and less fertility.

In order to achieve a normal plant growth, a balanced soil structure and unhampered microfauna must exist in the soil. These are important factors for the fertility of the soil. The problem of the farming practiced today is the decreasing yield. The reason for this is the disturbance of the soil system through the abuse of excessive fertilizers and pesticides and the high mechanical thickening through the used machines.

The toxic blockades can be reversed with the aid of **Greengold** by the change of the molecular structure of these compounds. The natural flow of the sap is restarted. The metabolism and the building of cells, are optimised. This has a preventive and healing effect on the physiology of the plant: The natural immune system of the plants is strengthened. The susceptibility of the plants to pests and disease decreases. The plant growth is forced and a detoxification of the plants takes place. The result is an increase in the yield and the improvement of the quality of the fruit and plants.

3.1 Effect from damaging environmental influence and toxic blockades

The high use of chemical and organic fertilizers as well as pesticides and weed killers results in toxic blockades in the soil. The microorganisms are strongly affected due to the high concentration and can therefore no longer fully maintain the metabolic cycle. Besides the material that has a toxic effect due to its unnaturally high concentration (Paracelsus), there is also another which has a highly toxic potential. These materials, especially heavy metals, land unintentionally in the cycle of the material. Whilst the components of synthetic or organic fertilizers hamper or stop the individual organs by means of strong enrichment of the material cycle, the material of high toxic potentials attacks the organs.

The mutagene effect of many heavy metals changes the structure of different microorganisms. This is why their ability to fulfill their respective duties in the soil are negatively influenced or, in extreme cases, completely die out. Negative situations result as soon as the rate of mutation that is influenced by toxic potentials exceeds the reconstruction rate of the microorganisms. This situation is intensified by the simultaneous destruction of the soil structure by means of the mechanical effect (pressure by machines) on the one hand, and the blocking deposition of different material mixtures as a result of excessive fertilizing on trhe other.

To achieve a natural and optimal plant growth, one must return the soil to its natural condition. For this, the dilution of toxic effects and the revitilisation of the natural processes are needed. Using polysaccharide structures in the product, a definite order of electrostatic interactions between particles in the soil texture is achieved. The natural capillary and crumbly structure is reconstructed in the soil and the important balance of air, water and temperature is normalised in the soil. The effect of the materials with highly toxic potentials on the microfauna and vegetation is minimised.

The scientist generated an active compound that modified the oscillating molecular structure of the material groups, so that they contained no toxic potential against the eco-system. Even substances that are highly toxic, undergo a change in their molecular structure so that an optimal development of the soil fauna can no longer be disturbed. Natural and cultural areas can be decontaminated this way. The structure of the soil improves considerably with time. A natural crumbly structure and capillary activity of the upper and middle layers will be formed. Because of the mentioned restructuring, the soil is now in a position to attack the deposited fertilizer components.

The use of **Greengold** influences different groups of material, which are *catalysed* by the microfauna. It eliminates highly toxic concentrations and the vegetation is available as a valuable nutrient reservoir.

This results in an increase in the population of earthworms and the increase in living germs in the soil. A natural humus layer forms. Water on the surface and air can be absorbed in high quantities and preserved. The natural metabolic events begin to adjust. Nutrients and minerals vital for life as well as trace elements are qualitatively and quantitatively processed so that the plants are ready for an optimal and healthy growth in the event of the tendency for improvement of all the substances of the composition of the soil. The danger of silt, thickening and erosion is decreased.

3.2 Summary of the effect of Greengold

- **Greengold** promotes soil life. The microflora and the whole soil fauna are regenerated. These are supported by the improvement of the soil structure, namely the capillary and crumbly structure. The creation of a humus layer is encouraged,
- **Greengold** encourages the creation of an optimal soil climate. The soil can absorb more water and it can also hold it for longer. A rinsing of the soil or a fast drying out thereby occurs. The danger of the accumulation of mud, thickening and erosion is almost eliminated. An ideal ventilation of the soil is also achieved.
- **Greengold** replaces all synthetic fertilizers. Natural nutrient reservoirs are activated and are kept in that condition. Existing nutrients or nutrients that entered by way of rain are used again more actively.
- **Greengold** is responsible for the elimination of toxic blockades and this leads to the decontamination of the natural and cultural soil.
- **Greengold** improves the ability of the seeds to germinate. It also supports the development of the rooting of new plantings. Greengold regenerates and strengthens the strained and weakened roots.
- Greengold supports the symbiosis between soil, roots (capillary roots/Mykhorrhiza) and plants.
- **Greengold** activates and regulates the plant metabolism. The stimulation of the flow of sap leads to a quick decontamination and a regeneration process in weakened plants. The immune system is strengthened. The immunity against yeast infections and pests is increased.
- **Greengold** encourages growth and improves the quality of the harvest. The use of Greengold reduces the production costs and relieves the strain on the environment and regenerates it.
- **Greengold** functions through a combination of many substances and their contents (information), that, in sum, take care of the course of the natural material cycle with the greatest efficiency. The function of Greengold transfers the microorganisms and plants to the soil components and is established there. This is achieved via the firmly structured solvent, water, according to the hierarchy of the solvent. The revitilisation of the soil and the maintaining of this condition is responsible for the impressive results of Greengold.
- **Greengold** is a fluid concentrate One can assume that a dilution of 1 to 1000 (ratio of **Greengold** fluid concentrate to **Greengold** spray/pouring liquid) can cover its function fully. As for the peculiarities of the usage of **Greengold** (Where? How? When? How much? How often?), these will be discussed in the chapter no. 4.

3.3 Photo documentation



Soil structure

On both photos, one can see on the right the specimen of earth treated with **Greengold** as opposed to a specimen of untreated earth on the left half of the photo. One can see quite clearly the improvement of the soil structure and one can recognise the high moisture content.





Improvement of the roots

One can see above on the right, the roots of grass that have been treated with **Greengold**. On the leftis grass that has been untreated. Underneath is also a clear difference in the roots and the growth.





Plant growth (pictures taken by Dr.Hermann Steinbach in 1959

Top: The areas of grass that have been treated with ABC /Greengold point to a clearly improved growth and a higher soil moisture content

Bottom: The difference between a cabbage field that has been treated with artificial fertilizer (left) and a cabbage field that has been treated with Greengold is clearly visible.



Organic Growing

The following photos were taken 2003 at the Ökohof Hans Feldinger, Salzburg / Austria



Growing of vegetables without watering

No problems within the long dry period in summer 2003





Organic Tomatos in a greenhouse, on the top treated Greengold, below without Greengold





Good Soil Structure – perfect conditions for the growing of vegetables, potatoes grain and hemp.





Growing of a special grain with Greengold



Private Greengold experiment with ornamental plants





On the left side Ornamental plants not treated with Greengold

On the right side Ornamental plants treated with Greengold.



By this simple experiment eve the most critical members of the family were really convinced by the effect of Greengold

Examples of treated Riesling vinegard



On the left, a vineyard and a sample of grapes treatet with organic and synthetic fertilizers. On the right, a vineyard and sample of grapes treated with Greengold. This vineyard has well survived the dray summer season. No nutrient shortage appeared on the vineyard during the season until the harvest. The treatment with fungizide was reduced by 80 %. The treatment with pestizides and herbizides was reduced by 100 %. The harvest quantity did not fallen than the above-average. The quality was improved by aboout 25 %. The harvest in quantity was 16.000 kg Riesling grapes / 1 ha !



24



The vineyard, treated by Greengold, could be seen as a green island





A result of toxic blockades in the autumn leaves of conventionel treated vineyard (upper pics) Healthy colored autumn leaves of wineyard, treated by Greengold (below)



Riesling Grapes organic grown and treated by Greengold in 2002

This had been taken in the end of October after a long raining period and storms













Usage of Greengold

One litre of Greengold /liquid concentrate is sufficient for the treatment of one hectare of agricultural land. This means that the active potential of one litre of Greengold/ liquid concentrate, is to be distributed on this area equally. The distribution takes place by using a large amount of water. 1 litre of Greengold/fluid concentrate is mixed with 400 to 2000 litres of clean water and this mixture is kept in motion by stirring it gently for 5 minutes before use. For smaller areas, one uses a suitably lower dosage of Greengold/fluid concentrate dissolved in a lower amount of water to be poured. An overdose is impossible. 5 to 25 ml of Greengold/liquid concentrate are enough for a 10 litre watering can. For 1 litre of water for watering (e.g. house plants), one uses ca 15 drops of Greengold/liquid concentrate.

The temperature of the water should not be less than 8° C when using Greengold. The suitable temperature of the soil is > 8° C. When spraying or pouring the liquid, it is good as a rule when drops accumulate. This way the function of Greengold can be optimally transferred. The transferal takes place by means of the moisture in the soil as well as by the plants themselves. If one considers rain to be the natural form of irrigation, then this technical process should be adapted to it as much as possible. Conventional equipment should be modified so as to meet these demands.

The distribution of pressure in a production system must not exceed 3 bars. Beating and extreme whirling of the liquid should be avoided. For the treatment of large areas, the use of a piston pump is recommended. This should either be operated by an auxiliary drive or by an independent motor with a step-down gear. One uses nozzles resembling shower heads or repercussion nozzles. However, the circumference of the pipes, pressure limit and amount flowing through should be optimally in tune with one another.

The active compound should be used during or after rain to prevent fast evaporation of Greengold. It is important to always remember that the active function of Greengold is absorbed and transmitted by way of moisture in the soil and plants. In areas with low-rainfall the usage should take place after watering the area. Generally speaking, it is always of advantage when the soil remains moist for a while after the treatment. Either through additional watering, or through further rain. This is to prevent the soil from drying up.

No more synthetic fertilizers should be used. This is to insure that the dissolving of the toxic blockades is not obstructed. Organic fertilizers in particular, give out toxic effects with regard to an optimal metabolism in the soil. However, the introduction of organic fertilizers in soil with an unbalanced texture e.g. sandy, clayey or humus lacking soil is sensible in order to promote the humus formation. This formation can be accelerated by the integration of plant waste. In order to avoid further pollution of the soil, it is necessary for organic waste resulting from livestock and compost waste to be treated with Greengold This way one obtains the wholesome soil supplements, that encourage the recultivation of sandy soil or soil with a weak or unbalanced texture.

The observance of these points guarantees a complete action and optimal results. Several treatments are required, depending on the existing toxicity of the situation of the soil. According to all findings and research results, the use of pesticides and fungicides can be reduced, and is no longer necessary in the long run after the reorganisation of all natural potentials in the relevant biosystems. Problems still occur however in monocultures. In the event of a complement fertilizer being required, this straining effect can be reversed through repeating the treatment with Greengold about a week later.

The increase profits and the long term stabilisation of a natural soil fertility with both the positive results of a healthy and rich harvest, as well as those on the environment, makes the use of Greengold in all cases sensible and worthwhile.

4.1 Meadows and agriculture

Greengold can be applied as a wholesome fertilizing process for meadows and agriculture.

4.1.1 When to use

When using Greengold for the first time it should be used on the soil after the sowing of the seeds. Further treatments can follow during the formation of the cotyledons and for a further 2-3 weeks. Optimal results are achieved by treating the seeds with Greengold after the initial treatment. This guarantees a healthy growth right from the beginning. The frequent chemical treatments carried out, resulted in severe pollution and weakening of the immune system. This can only be balanced slowly later on and therefore, makes the use of pesticides inevitable. Therefore, it is only through the use of healthy seeds in active and healthy soil that guarantees a really healthy growth.

Meadows should be treated at the beginning of the growth period up to two times with a gap of 14 days between each treatment. Suitable weather conditions -as mentioned before- should be observed. It is recommended in the absence of rain, to carry out the treatment in the evening, in order to achieve a better transferral of moisture. This applies generally to all treatments of cultural and natural areas. A third treatment can be applied after cutting the grass for the first time. One can expect up to three harvests of grass provided that the weather conditions are normal.

4.1.2 Way of use

One litre of Greengold is needed per hectare of agricultural land. This must be diluted in 400 to 2000 litres at the maximum of tapwater. Then it must be introduced to the spraying or irrigation system. The proportion depends on the specific conditions of the used machines and systems.

4.1.3 Conditions of use

The optimal condition for the complete absorption of the active compound Greengold is wet or damp soil. It is therefore recommended that Greengold be used during or after light rain or in combination with watering. Well drenched or moisturised soil guarantees a high effectiveness of Greengold. It must always be seen to that the used equipment is clean. Otherwise it must be cleaned with activated carbon.

4.1.4 Dosage table for the spraying procedure for the treatment of agricultural areas

Greengold liquid concentrate	Tapwater or rain water	Spray liquidity	Area
1,000 ml	ca 400 litres	ca 400 litres	10,000 m ²
1,000 ml	ca 2,000 litres	ca 2,000 litres	10,000 m ²
100 ml	ca 40 litres	ca 40 litres	1,000 m ²
100 ml	ca 200 litres	ca 200 litres	1,000 m ²
10 ml	ca 4 litre	ca 4 litres	100 m ²
10 ml	ca 20 litres	ca 20 litres	100 m ²

4.2 Horticulture

Greengold can be used here as a complete fertilizing process or nutrient conditioning.

4.2.1 When to use

Vegetables -Herbs

When using Greengold for the first time it should be poured into the soil after the sowing of the seeds. This is followed by a second treatment during the blossoming time or 5 weeks after the date of planting. Optimal results are also achieved here by pre-treating the seeds with Greengold. A further process is recommended for the seedlings: The seedlings are soaked in an Greengold / spray solution -see table for concentration- for 10 hours. A second application also follows here during the time of blossoming or 5 weeks after the date of planting.

Copses - shrubs - flowers (bulbs and nodules)

At the beginning of the vegetation period Greengold is used during the watering process. A second application follows with the start of the time of blossoming. Flower bulbs and flower nodules can be soaked for 10 hours before the time of planting in an Greengold / spray solution. A further application follows during the time of blossoming.

Lawns

During the vegetation period, Greengold should be equally distributed by either being sprayed or poured.

4.2.2 Way of use

Greengold can be poured, sprayed or applied by irrigation. 10 ml of Greengold / liquid concentrate are needed per 100 m² of garden. One must dilute this in 4 litres to 20 litres, at the maximum of tapwater or rain water. The proportion of ingredients depends on the moisture present in the soil or on the specific conditions of the tools used in production. The concentration must always be between 10 ml/100 m². When spraying, the pressure should not exceed 3 bars. Pouring is the optimal form.

4.2.3 Conditions of use

The optimal condition for the complete absorption of the active compound Greengold is wet or moist soil. It is therefore recommended that Greengold be applied shortly before or after light rain or in combination with the irrigation. Well soaked or moist soil guarantees a high effectiveness of Greengold. It must always be checked that the equipment used is clean. Otherwise the equipment should be cleaned using activated carbon.

4.2.4 Table of dosage for the spray and pouring processes in horticulture

Greengold / liquid	Tapwater	Spray or	Area
concentrate	or rain water	pouring liquid	
10 ml	10 –25 litres	ca 10-25 litres	up to 100 m ²
1 ml (ca 15 drops)	1 litre	ca 1 litre	up to 10 m ²

4.3 Fruit trees, deciduous trees and conifers

The use of Greengold in fruit trees, deciduous trees and conifers prevents pests and diseases. Pests prefer as a rule sick or weakened trees. A revitalisation of already weakened or sick trees takes place through the repeated application of Greengold. Fruit trees become altogether stronger, and the amount and quality of the yield improves.

4.3.1 When to use

Fruit trees

The first application takes place with the beginning of sap. Further applications follow shortly before or after the blossoming or infestation or the first signs of disease. The application of the liquid spray should be carried out in such a way so that both the soil and the plants are sprayed. It is to be observed that the soil has enough moisture so as to fully absorb the effect of Greengold.

Deciduous trees and conifers

The application takes place at the beginning of the vegetation period. Further applications follow 8 weeks after the first application. Greengold should be used every 6 weeks for infested trees.

4.3.2 Way of use

Greengold can be used by pouring, spraying or irrigation. One requires 10 ml of Greengold per 100 m² of soil or treetops. This must be mixed in 4 litres to 20 litres at the maximum of tapwater. The concentration proportion depends on the moisture of the soil or air and the applied method. The concentration of Greengold must always be 10 ml per 100 m². An overdose from Greengold is impossible. Negative effects are out of the question. This applies to all the fields of application.

4.3.3 Dosage table for the treatment of trees

Greengold	Amount of water to be sprayed	Soil area / area of treetops
100 ml	40-200 litres	1,000 m ²
10 ml	4-20 litres	1,000 m ²

4.4. Composting

The use of Greengold for liquid manure, sludge, as well as farmyard manure, fowl manure, or compost aktivates bacteria, that is responsible for a fast decomposition of solid waste. Ammonia is contained and the concentration of nitrate is reduced. Causticisation of plants and soil organisms is clearly reduced by the use of Greengold. A decrease in the smell is also to be observed.

4.4.1 Areas of use

Liquid manure or sludge

1 litre of Greengold is diluted in 500 litres of tapwater for every 100 cubic metres of manure or sludge. This watery solution is mixed with the material to be treated. This mixture should be allowed to become effective in the manure pit at a temperature of 15-20 degrees centigrade for ca 4 weeks. Afterwards a fertiliser results that produces a treatment for the soil with Greengold and which in addition contains processed nutrients that are ready to be used by the plants and trees.

Manure or compost

For every 100 cubic metres of manure or compost, 1 litre of Greengold is diluted in 500 litres of tapwater and stored in a container for the following treatments.

Enclosures for the composting of organic waste

Organic waste like those resulting from livestock and abattoirs are of a particular toxic nature. They can be processed into usable organic fertilizer in special developed enclosures. In the composting phase, 1 litre of Greengold is used per 100 cubic metres of organic material. This way, after 3-4 weeks an organic fertilizer in the form of pellets results that no longer has any toxic effect on the organism of the soil. It can then be used with conventional technical equipment. Further fertilisation with synthetic fertilizers is unnecessary.

4.4.2 Dosage table for liquid manure and sludge

Greengold	Amount of liquid to be poured	Amount for liquid manure
1,000 ml	500 litres	100 cubic metres
100 ml	50 litre	10 cubic metres

4.4.3 Dosage table for compost and farmyard manure

Amount per layer (thickness of layer 20 cm)	20 ml Greengold/concentrate to be mixed in 10 litres of water and poured on to an area of 10 m ²
Amount per cubic metre	10 ml Greengold/concentration to be mixed in 5 litres of water and to be poured over the compost or farmyard manure.

4.5 Ponds, Rivers and Lakes

The use of Greengold guarantees a biological balance in the water, as well as a better quality of water. The vital functions of aquatic animals and plants are generally improved. The formation of algae and putrefaction is prevented by the decrease of the proportion of nitrogen and nitrate in the water. This enables a detoxification and an optimal supply of oxygen.

4.5.1 When to use

Greengold is applied at the beginning of the vegetation period. Further treatments take place at the beginning of the blossoming of the algae.

4.5.2 How to use

Greengold can be applied to the water surface either by covering the surface or partially (by way of influx).

4.5.3 Conditions

The flowing and drainage of the pond should be stopped or reduced to enable Greengold to linger in the pond for three days. In the event of stemming, Greengold can also be used quite safely.

4.5.4 Dosage table for the ponds

Greengold/liquid concentrate	Spray liquidity	Amount of water to be treated
1000 ml	500 litres	100 cubic metres
100 ml	50 litre	10 cubic metres
10 ml	5 litre	1000 litres

5. Analysis and applied examinations in Germany

Since the mid eighties, intensive analysis and examinations on Greengold have been carried out in Germany. The institutions that are listed here and the results of their examinations, paint an impressing picture of the many possibilities of usage. Since the mid nineties a standarised production of Greengold has been made possible because of further studies in German universities.

5.1 Institutions

5.1.1 Wahlwies analytical laboratory

Re: Chemical analysis of toxic metals and other toxic matter of the product "Greengold".

Toxicity assessment of the two products:

- The products are completely untoxic and can be described as environment friendly.
- They are therefore not dangerous for people, animals, plants, soil and water.
- The products contain no growth hormones or preservatives whatsoever.

5.1.2 Fresenius Institute, Stockach-Wahlwies laboratory Dipl. Chem. Armin Hoeckendorf

Analysis of the composition of Greengold (Date of analysis report: 5.12.92)

- Exponented inorganic salts.
- Exponented organic relationships.
- Exponented trace elements.

The examinations were carried out using an atom emission spectroscopy gas-phase chromatrograph with ECD detection, biological test on the hindering of choline terrace. serum.

Summary of results:

- Greengold is in the above mentioned composition completely untoxic for all living things.
- There are no dangers from this product whatsoever. This statement also applies in the event of accidental or conscious abuse, as well as in the event of accidents or the application of very high doses.
- The product is not liable to any restrictions whatsoever in its above mentioned form. Either in the hazardous goods regulations of the law for chemicals, or transport rules by road, sea, waterways or air.
- A declaration of the components-except distilled water- is not necessary with regard to the laws of export.

5.2 **Reports on scientific results**

The following institutions have tested the active compound Greengold practically:

5.2.1 Westphalia-Lippe Chamber of Agriculture / Experiments with grassland

Agricultural institute for experiments and research Joseph-König-Institute, Münster / Germany

During the use of Greengold in meadows in the Sauerland (a region in the German state of North Rhine-Westphalia), an above-average growth of grass on the treated areas could be observed. It was possible in 1987 to obtain two harvests from the control areas and four grass harvests from the treated areas. The analysis of the individual grass specimens showed a clear increase in the components contrary to the untreated specimens.

Components	Untreated specimen in g/1,5 m ²	Specimen treated with Greengold in g/1,5m²	Increase in %
Amount of grass cut	490.00	1.970,0	302,04 %
Dry mass	112.70	311,26	176,18 %
Water	377.30	1.658,74	339,63 %
Raw protein	15.68	74,5	375,13 %
Raw fibres	27.83	67,57	142,85 %
Starch	63.21	162,8	157,55 %
Beta-Carotin ppm	17.15 ppm	41,0 ppm /m ²	139,07 %
Calcium	1.03	3,152	206,02 %
Phosphorous	0.49	9,45	1.828,57 %
Sodium	0.02	0,197	885,0 %
Potassium	3.33	13,59	308,11%
Magnesium	0.15	4,14	2.600,6 %

Münster /Germany, 30.6.1998

Dr. Ambrowski

5.2.2 Hanover chamber of agriculture / Experiments with fruit-growing Agricultural institute for inspection and research in Hamlyn

The inspection of fruit (apples and pears), that were treated with Greengold showed that the amount of lead and cadmium was found to be much lower than normal.

Hamlyn 1.2.1989 Dr. Matter

5.2.3 Dr. Balzer / Experiments in vegetable-growing Laboratory for examination of soil and trace element-analysis, Amönau

During a comparative inspection (copper chloride crystallisation according to Pfeiffer, as well as the ascending image method according to WALA) of carrots taken from three methods of cultivation:

- □ Specimen "H" : biological cultivation
- □ Specimen "K" : conventional cultivation
- \Box Specimen "S" : treated with Greengold

Great differences were noticed in the substance and variety of the carrots.

Carrots of specimens "S" and "H" showed to have similar positive and vital characteristics. The carrots of specimen "K" differed by having clearly less vital characteristics.

Carrots of specimen "S" can be described as well-ripened. They showed a high reduction ability. The lactic acid fermentation is optimal in the carrots of specimen "S". This shows a well-ripened, excellent and well-revived top quality. They show an optimally formed character that is typical for carrots. The carrots of specimen "S" are riper than those of specimens "K" and "H.

Amönau / Germany, 31.10.1989

Dr. rer. nat. Balzer

5.2.4 Dr. Balzer / Experiments in the cultivation of cereal

During a comparative inspection (copper chloride crystallisation according to Pfeiffer, as well as the ascending image method according to WALA) of the vital activity of wheat conventionally cultivated and wheat that was treated with Greengold, the following was found:

The result of the inspection of the vital activity of wheat specimens from the conventional or rather *Greengold-cultivation* was that there were clear differences between the two specimens. The wheat specimen that was conventionally cultivated, is less vital, slightly deformed and at the same time also more sensitive to aging and decomposition processes on the highest level. The wheat specimen Greengold showed a more vital and more obvious top qualtity, characteristic for seeds for the ripened resolving processes. The vital activity of the wheat specimen Greengold, resembles the vital activity of the well-ripened, dormant seeds and the quality can therefore be classified as better.

Amönau 31 10 1989

Dr. rer. Balzer

5.2.5 Hygiene - Ruhr (area) institute, Gelsenkirchen / Germany

Inspection of water

Water from two ponds "Schröer pond, Olpe" and "Dr. Füchtemeier pond, Brilon" were inspected on behalf of the engineering office Neuhaus-Schwermann. Directly after the first specimens were taken, Greengold was added to improve the quality of the water.

Schrör pond, Olpe

The slightly yellow and murky water (visibility depth 40 cm) became almost clear after 20 days and became green in colour (visibility depth 150 cm).

The comparison before and after the addition of Greengold clearly shows an improvement in the quality of the water. The reduction of nitrogen and nitrate were mainly responsible for that. The entire degree of hardness was reduced from 11.6 degrees dh to 9.1 degrees dh.

Containts	Untreated specimen	Specimen treated with Greengold after 20 days
Iron	0,14 mg / l	0,09 mg / l
Manganese	0,08 mg / 1	0,06 mg / 1
Calcium	68,8 mg / l	54,4 mg / 1
Magnesium	8,8 mg / l	6,5 mg / 1
Chloride	13,0 mg / l	9,0 mg / 1
Sulfate	32,0 mg / l	26,0 mg / 1
Sodium	10,4 mg / l	6,88 mg / 1
Potassium	1,73 mg / l	1,55 mg / l
Nitrate	12,0 mg / l	0,3 mg / 1
Nitrogen	2,43 mg / 1	0,6 mg / 1
Phosphate	0,04 mg / l	0,01 mg / 1

On the other hand the degree of susceptibility was clearly raised from 14.9 mg/litre to 16.4 mg/litre. Organic carbon matter from 3,30 mg/litre and the ultraviolet absorption from 8.90 to 12.5.

In the biological relationship a clear drop was observed in the plankton specimen from two of the strongly represented green algae genus (Rhodomonas spec. & Cryptomonas spec.) on the 22.9.1998 to ca 10 % (from 6660 org/ml to 580 org/ml or rather 500 org/ml to 45 org/ml).

A clear reduction of the thickness of the organisms also occured in the seston (network) specimen. The seston quantity was reduced from 50 ml/m³ to 20 ml/m³. The diatom genus "Fragilaria spec". and the "Keratella quadrata" decreased considerably.

Dr. Früchtemeier pond, Brilon

The very soft and highly alkaline water of this pond showed 20 days after the addition of Greengold similar changes as the specimen of water from the "Schrör Olpe pond". The values of the degree of hardness of magnesium, chloride, sodium, potassium and conspicuously high for phosphate decreased with the simultaneous increase in the values of the oxidation, organic carbon matter and UV-absorption. Apart from the pH-value, that sank visibly, further water components showed no remarkable changes.

To sum it up, it can be said that as well as a reduction in the salts in both pond specimens especially in the "Schrör Olpe pond" a reduction in the phosphate and nitrogen compounds occurred. Phosphate and nitrogen are the strongest limiting factors for the growth of algae in the central European areas. After verifying the water treated with Greengold, no noticeable development of algae could be expected.

Gelsenkirchen / Germany, 24.11.1988

Priv. Doz. Dr. med Exner

5.2.6 National Acedemy of Science / Institut of Radiobiology Minsk / Belarus / G.U.S.

Preliminary results of testing the "A-plus" product ("A-plus" is identical with "Greengold")

Date: 15.07.1999 Number of experiment: 99 / 01 - 526

In the period from February to May of 1999, the Institute of Radiobiology of the National Academy of Sciences of Belarus carried out the test of effect of "A-plus" product on the growth and development of cereal crops (oats) in the conditions of phytotrone.

It was found that "A-plus" exerted positive influence on the speed of plant growth. At the application of "A-plus", the height of plants was higher than at the oats cultivation in ordinary conditions.

The experiment continue.

E.F. Konoplya

Director of the Institute of Radiobiology of NASB Academician

5.2.7.1 G.A.S. GALKI, AGRI, SERCO Inc., HELICON / Philippines

Study 1: Efficacy Testing of "ALPHA 1010" (i.e. Greengold) with Rice (Oriza sativa) as Test Crop

Objectives:

- 1. To determine the effectiveness of ALPHA 1010 in improving the growth and yield of rice plants sprayed during ist vegetative and reproductive stages
- 2. To dermine the response of rice plants fertilized with synthetic fertilizers to the spraying of ALPHA 1010

Methodology:

- 1. Preperation of rice paddies Six irrigated rice paddies measuring 4 m x 5 m were prepared. The soil were thoroughly puddled and harrowed in preparation for transplanting.
- 2. Healthy rice seedlings of 23 days old, were transplanted to the prepared rice paddies. Distance of planting was 20 centimeters between rows and 20 centimeters between hills. Two seedlings were planted per hill.
- 3. To determine the effects of ALPHA 1010, six (6) treatments were tested
 - T1 Control; No application of synthetic fertilizers and ALPHA 1010
 - T2 Chemical fertilizers were applied; the type and quaantitiy applied were determined by laboratory analysis of soils.
 - T3 Application of $\frac{1}{2}$ of the synthetic fertilizers
 - T4 Application of ALPHA 1010; 1 ml of ALPHA 1010 was mixed with 2 litres of water; the dilute ALPHA 1010 was sprayed on the rice plants 15 days after transplanting and every 15 days intervall thereafter. A total of sprayings were employed until the 60 th day after transplanting.
 - T5 Combination of T2 and T4
 - T6 Combination of T3 and T4

Duration of the study: March 12, 1998 to June 20, 1998

Observations:

- 1. The pictures taken last May 19, 1998 or 68 days after transplanting showed positive effects of ALPHA 1010 on the rice plants
- 2. Quantitative data which could be obtained at harvesting couls provide the conclusive evaluation.

Recommendations:

- 1. Since the Philippines soils are generally low in fertility, both in macro and micronutrients, it is recommended to enrich the solution ALPHA 1010 with micro nutrient like nitrogen, phosphorus, potassium, calcium and magnesium.
- 2. For registration of the product with Fertilizer and Pestizide Authority (FPA), it is recommended to subject the ALPHA 1010 solution to efficiacy testing following the FPA recommended test protocols. Under this protocol, larger test areas and variables will be employed.

Study 2: Efficacy testing of ALPHA 1010 with Tomato as Test Crop

Objectives:

- 1. To determine the effectiveness of ALPHA 1010 in improving the growth and yield of tomato plants sprayed during iistvegetative and reproductive stages.
- 2. To determine the response of tomato plants ferilized with syntetic ferilizers to the spraying of ALPHA 1010

Methodology:

1. Land preparation

Six plots measuring 6 m x 3 m were prepared. The soils were thoroughly harrowed until good soil tilth were obtained in preparation for transplanting.

- 2. Healthy tomato seedlings with 4 to 5 leaves, were transplanted to the prepared test plots. Distance of planting was 50 centimeters between rows and 75 centimeters between hills. One seedling was planted per hill.
- 3. To determine the effects of ALPHA 1010, six (6) treatments were tested:
 - T1 Control; No application of synthetic fertilizers and ALPHA 1010
 - T2 Chemical fertilizers were applied; the type and quaantitiy applied were determined by laboratory analysis of soils.
 - T3 Application of $\frac{1}{2}$ of the synthetic fertilizers
 - T4 Application of ALPHA 1010; 1 ml of ALPHA 1010 was mixed with 2 litres of water; the dilute ALPHA 1010 was sprayed on the rice plants 15 days after transplanting and every 15 days intervall thereafter. A total of sprayings were employed until the 60 th day after transplanting.
 - T5 Combination of T2 and T4
 - T6 Combination of T3 and T4

Duration of the study: March 18, 1998 to July 18, 1998

Observations:

- 1. Plants spraed with ALPHA 1010 loaded bigger and more roburst compared with the control plants.
- 2. Plants sprayed with ALPHA 1010 and fertilized with chemical fertilizers looked healthier than those which received ALPHA 1010 only.

NORA B. INCIONG, Ph.D.

Chief, Laboratory Services Division BSWM, Diliman, Quezon City

6 Concluding Remarks

The extensive use of Greengold is of great importance for the preservation and the regeneration of our environment. The use of Greengold will bring priceless benefits to the whole of the global dietetics. Pollution in food will be reduced and the necessary vital material for a healthy diet like vitamins, minerals and trace elements, will be available in a satisfactory form. This creates, in a simple and natural way, good conditions for the development of the human health. At the same time, the production costs can be reduced in farming through the use of Greengold, while the yields increase and the quality improves.

To use Greengold consultants are available, and they can help if desired. The application is relatively easy and can be carried out correctly after a short, concise introduction. The time in which it takes to become effective cannot always be planned in advance, because the relationships on the treated areas are very different and can also be very complicated. Greengold is however effective in all cases.

One can treat 1 hectare of land with 3 litres of Greengold liquid concentrate three times. Further treatments are required in extreme cases of toxicity. It can be assumed that the reorganisation of the complete natural organism - and with it the manufacturing of a stable and natural soil fertility - will be accomplished after 3 vegetation periods stabilised for a while. As long as further treatments with chemical pesticides are necessary, there must be a re-treatment with Greengold.

This process differs fundamentally from the conventional methods of fertilizing and chemical protection for plants. It is no longer about the isolated application of certain substances into the soil or symptoms of diseases and pests. But rather, Greengold is the successful systemic creation of a substance, whose function appeals to the potentials of the whole natural structural system. And that gets the complex effectivity of its elements and substances under way. This results in the dilution of toxic blockades and the regeneration of the natural functions in the affected biosystem.

The increase in biologically oriented farm land and a growing environment and food awareness, demands more and more *innovative* products that can notably keep the useful plants like fruit, cereals, and vegetables out of the cycle of chemical treatment and poisoning. Buyers from the whole world are protesting louder against damaged health , that fruit, vegetables and cereals cause them and their children. In many test trials by independent institutions, it was proved that the non-polluting substance Greengold is almost unrivalled with respect to the improvement of soil and the vitalisation of plants. One will have to completely reconsider the whole treatment of natural and cultural areas.