# Lebende Samen -Living Seeds e.V.

## In the beginning there are seeds

Written by Stefan Doeblin, our president

#### Introduction

If your plan is for one year, plant vegetables If your plan is for 10 years, plant trees If your plan is for 100 years, educate in plant breeding

Adopted from Confucius

In today's age, humanity is considered to be right at the cutting edge of development. Technology has been created for each individual task, dominating everything, including within the agricultural sector. Jobs previously carried out by farmers with love and care, are now performed by automated machines and by businessmen, detached from the real art and practice of growing food. The farmer's connection to the earth has been lost and with it the refined, traditional skills essential to plant breeding.

Native American tribes often refer to the seeds they grow as their children and the earth as the womb in which the seeds are placed. There's a constant familial bond and reference to nature, to the earth and to the seeds we use to grow our food. When the Hopi, a Native American tribe, were asked how they developed and adapted their corn seeds, they simply answered 'by singing and dancing for generations'. Many people in the industrial nations have forgotten the wisdom of using dance and song for growing seeds.

Sementes Vivas is a biodynamic and organic seed production and processing company in the Iberian Peninsula. They work closely with Kultursaat breeder Thomas Heinze, using the Eurythmic treatment of the professional Portuguese Eurythmy healing teacher, Maria Fernanda Wessling, in their plant breeding. The initial experiments were set up in November 2018 with radish and turnips. During an eight-year experiment with one carrot variety, Thomas has successfully created new carrot varieties by treating different portions of the seeds with a range of Eurythmic treatments, without selection and crossing methods. Singing and dancing to seeds may sound strange, but seeds are life force. They naturally respond to light, wind, gravity, touch and even sounds and spiritual forces. Studies in natural science have proven that certain sound waves support plants to grow faster. Seeds, like any other living organism, reproduce more effectively when nurtured and taken care of. Seeds treated with biodynamic practices have been shown to produce healthier food. The foods we eat play a crucial role in our physical, mental and spiritual health and in our overall development.

Yet, nonetheless, we are fast losing our soul-nourishing traditions of celebrating and supporting the harvest of our food with storytelling, singing and dancing. In Idana a Nova,

Portugal, the Adufe (a traditional drum, native to the region) was played by the women of the village to accompany the singing and dancing celebrating the harvest and sowing seasons. Sementes Vivas regularly invites the musicians known as 'Aduferas' to play at their farm at those seasons, to keep the tradition alive and to support the plants and seeds.

Sadly, today conventional farming is the dominant practice and it relies on the use of heavy machinery, monoculture, harmful pesticides and chemicals and on mass food production, with the focus on quantity rather than quality. This poses a serious threat, not only to our environment but also to our health. As Rudolf Steiner said, we are losing our humanity due to the declining spiritual energy in our seeds and food.

#### Biodynamic farming and plant breeding are holistic

The practices of biodynamic farming take both the complexity of the ecological system and the living forces of nature into consideration. The mission of a biodynamic farmer is to work in harmony with nature and not irrespective of the ecological system. Within this way of working, every single element, from soil, water and air to living organisms (no matter how small and seemingly irrelevant), plays a vital role. Treating any single component of the environment as a separate or independent entity disrupts the system. It understands that our health and wellbeing is very much dependent on this harmonious interaction between the elements.

Biodynamic farmers strive towards self-sustainability because the farm is seen as a living organism. They are committed to increasing the fertility of the soil, seeds and every component of that system. In biodynamic farming, everything is derived from and prepared on the farm. The farmer, therefore, uses natural seeds, organic fertilisers (their own compost, for example), worms and water so that the seeds can develop resistance and tolerance to pests, diseases or drought. The seeds must be adapted to the conditions of the local climate. Nutrient-rich crops with a high standard of flavour and aroma are key goals for any biodynamic plant breeder.

The 'organic and biodynamic farming approach' is definitely more labour intensive than the 'industrial' method. This is because it strives for sustainable maintenance and the increase of resources - for example, improving soil structure, diversifying and integrating with local ecology, closing nutrient cycles and breeding crop varieties that work with local ecology and human biology (see Down to Earth from Jozef Visser, page 192/193). In June 2018, FAO introduced the programme AfriSoils, promoting natural methods of increasing fertility in the soil to reduce erosion and to stop deforestation.

## Seeds and Life

In his book 'Manichaeism', Rudolf Steiner discusses the interrelation and cycle of life and form, describing how life moves from a low form as seeds to the highest form as a flowering plant and then back to a low form as seeds of the flower. All the life force and energy moves from the flowering plant to the seeds for the next generation. The material form of the plant creates a container for the life force and also transmits the energy needed for certain functions as part of a complex system. Cycle of the seed – beginning tiny, goes into earth and

suddenly a plant arises and creates form. End stages, flowering and the flower goes down and leaves seeds, and plant comes up and on and on and on...collapses to be reborn. The form of life acts as a barrier to contain energy. Form – structure of plant – holds and contains life energy. If life were formless - unconstrained and left to flow in its full power - there would be no differentiation of species, required for the many life functions present in nature. The seeds from each former epoch provide the form for the next. The biodiversity of life transcends the form and flows into the seed, in order to recreate the same life, over and over in a kind of reincarnation process.

Some years ago, during a house renovation, the old straw and clay mixture was taken out of the walls and thrown out. The house was over 50 years old. As it happened, rain soon fell over the 50-year-old straw and clay waste, and after a while (against all odds) one could observe the shoots of some cereals beginning to grow out of it. A strain from over 50 years previously had come to life and was saved and recovered. What a testament to the miracle of life.

Nature is very effective but not always efficient. In order to secure the continuity of its own existence, a single tree can produce millions of seeds spread by wind, animals, insects or humans to secure one new tree of its variety. Men produce millions of sperm to produce one child. If the life of a tree is threatened - for example, due to water shortage or fire strikes - the tree produces more seeds to ensure it will not become extinct. Bad conditions for a crop could actually prompt a strong harvest of seeds – in plant breeding it is not always wise to use the best conditions to produce base seeds. You do, however, need the best breeders. When multiplying seeds, two very important elements are adequate growing conditions and experienced farmers. The spirit and the energy of the breeder and farmer flows into the seeds and often a dialogue occurs between the parties. Seed, plant and breeder shake hands and bless each other.

Seeds are life, and life is powerful, if we maintain the integrity of the plant and nature. If we believe that life is more than physical material, if we believe in life force, if we want to take care of life and our future generations, then we need to take care of seeds. The structure, form, information and energy are all contained within the seeds, added by nutrients from the soil, air, water and energy from the cosmos.

Conventional farming doesn't recognize the life force in seeds and instead reduces seeds to pure chemical and biological processes, treating them as objects independent of the ecosystem while ignoring the integrity of the plant. Conventional agro-engineering uses poisonous chemicals or gene-technology to manipulate seeds, which in turn impacts the soil and water. The agro-industrial sector is one of the biggest polluters of soil and water worldwide.

## Seeds and farming

The multiplication, regeneration and improvement of seeds are necessary in order to grow vegetables, cereals or other edible plants in realistic conditions. The seed's ability to maintain its quality during its lifecycle is limited. Even gene-banks cannot freeze and store seeds forever if they do not re-cultivate them again in the soil. They must be replicated every 5-10 years in the fields before they are frozen again. The majority of countries, especially those in

poorer areas, currently import 90% of their agricultural seeds from the big seed company giants (e.g. Dupont, US, Monsanto/Bayer, Germany, Stakata, Japan, Limagrain, France, Syngenta, China, KFW, Germany). The USA, Germany, France, Japan and Russia are exceptions, as well as the Netherlands, which is one of the biggest seed exporters in the world. Most of the profit from seed production is kept within the small number of top industrial nations as listed above, where the headquarters of the top 10 seed companies are located. It is, however, not only about seeds. 70% of the world's food trade is in the hands of 4 international companies: Archer Daniels Midland, Bunge, Cargill and Louis Dreyfus. Most populations are currently dependent of the 'good will' of 4-10 globally operating companies, located in rich countries. The poor are buying from the rich. With the potential of a food crisis caused by bad weather, these companies are raising their prices even higher in order to maintain their wealth.

Till the 19th century, seeds and plant breeding were part of the public domain - exchanged or locally developed in public institutions/research centres. This has changed drastically in the last 60-100 years. Private companies now mostly have the monopoly on plant breeding, keeping the knowledge inaccessible to the public. They began by developing hybrids, withholding the information regarding the family lines. The hybrid seeds showed higher yield and more uniformity making transport and storage easier whilst also resulting in the loss of flavour and aroma. They then developed genetically manipulated seeds, resistant to specific pesticides also developed by the same company. This meant the farmer buying the company's seeds would also be forced to buy their specific pesticides and fertilisers to balance the local conditions (as the seeds are not adapted to their climates), in order to produce a reliable yield. Whilst this may all sound benign on the surface, in reality the implications are very serious. This model ensures that the money is kept by the agricultural giants such as Bayer, Syngenta, Dupont, Limagrain, Stakata and not by the farmer, who becomes increasingly reliant on these companies for his business. In addition to this, if the soil becomes unhealthy, the cost of this falls to the farmer, not the agrochemical giants, whilst that of the water pollution is covered by the taxpayer. The annual investment in private plant-breeding is around 100 times greater than that of the public counterpart. The ten big seed companies in the world currently invest around €1bn per year in research and development of plant breeding. The estimated total investment in organic and biodynamic plant breeding, however, is more like €10m per year - 100 times less than their corporate equivalents. The conventional seed business model is based on the privatisation of seed production (most companies hold patents or plant breeder rights) and the processing of knowledge in such a way that farmers cannot reproduce the seeds. They sell the seeds on a yearly basis to farmers in combination with fertilisers and pesticides. The ten big seed companies have their own gene-banks and are financing hundreds of highly paid researchers. The client farmers are dependent on their systems and knowledge in order for these seeds to grow.

What are the organic and biodynamic farmers doing? Well even they are now using mostly conventional seeds. What has happened in the last 70 years? The food chain is now very different to how it's always been. Instead of locally grown and sourced food we are confronted with a global food chain, uniform flavours and the necessity of driving to the supermarket. The retailer now dictates both the price and appearance of our foods, due to storage and transport conditions. Nowadays most consumers want to buy their food cheaply, readily prepared and available all year round. Instead of tomatoes, people consume Ketchup

from Heinz. We do not have an 'asparagus season' and the concept of 'Easter lamb' no longer exists; people want it all the whole year round. Due to global tourism, people are buying the exotic fruits they have tasted during their holidays abroad, without concern for the season. The modern seed industry breeds their seeds with focus on characteristics such as uniformity of appearance and taste, transport ease and yield. Flavour, aroma and nutrition do not matter so much. The industrial production of and demand for food has caused the industrial production of seeds and supressed more and more of the traditional seeds. We are now at the point where, when people remember the value of health, taste and aroma, there will suddenly be no adequate seeds available. 75% of seed varieties have been lost. In the past there was a record of over 300,000 seed strains across the planet. 30,000 of which were edible. Today, only 120 varieties are regularly used to produce food, while most people survive on only 10. Meanwhile, there are a growing number of scientific studies showing that diet is key to increasing lifespan. Along with the need to eat less meat, it is key that we increase our intake of vegetables. It is now crucial that we reintroduce education in food and nutrition to schools around the world.

Today the number of organic seeds produced are very restricted but growing. The untreated seed material in gene-banks is often poor quality, resulting in poorer quality of the traditional seeds as well. It is important that we improve the quality of these seeds but this requires time and knowledge. A full improvement programme for organic seeds can take several years and to generate a new organic variety can take up to a decade. It is this lengthy process which drives the motivation to use methods of genetic manipulation. However, while it shortens this cycle down to one or two years, it destroys the integrity of the plant – disregarding the complex interactions between the plant organism and the environment to which it is not adapted. Because of this, more and more initiatives in Europe, the US, Russia and China are moving towards organic and biodynamic farming - due to the collapse of the conventional, industrial farming model which is rapidly destroying the soil, polluting the water and reducing varieties of food.

## From Farming to industrial agriculture

In the past, the agricultural sector used mainly local varieties, thereby ensuring biodiversity all over the world. The farmers were real farmers. They knew their land and touched their soil with their hands and feet, taking care of their animals and seeds themselves. Sometimes they would exchange seeds in order to improve or compare crops, other times they held onto their seeds like treasures. The food was not transported far. Everything was grown and exchanged locally, moved from the land to the next town. Most of the farming tools were invented by farmers themselves or craftsman and made by hand close by. Food and hunger went hand in hand and the quality of the food was kept intact. The agricultural sector dominated the economy - 70% of the population worked within it and each year it was the weather which had final say on the size and quality of the harvest. Unemployment did not exist in those days.

The conventional farmer of the last 100 years is not the same farmer any more. Today's famer receives instructions from the different industries - telling them which fertilisers, pesticides and machines they must use and when. They use GPS-controlled farming and the scientists of companies such as Bayer calculate the formula based on the type of farming and the

specific country and the size and soil of each individual farm. They recommend the specific seeds including the round-up of fertilisers and pesticides and define the size and specification of the machinery determined by the manufacturer. The conventional farmer becomes a businessman and loses the skill and proficiency of the real farmer. They sit in the office calculating profit and loss, the means and the market. They lose the connection to the soil and the plants, the animals, the food and to the spiritual forces. It appears that using the machines and technology shifts the focus away from the earth and the cosmos and onto numbers, money and power. Since the prevalence of industrial farming, animal welfare has also become an issue. In the past animals were kept with care due to their value and importance. Nowadays a cow is an industrial product, only valued by its weight in meat. Their horns are sawn off to enable more cattle to be kept per square metre in the barn. They have no space even to walk - they are fed 'food' which they would never eat in nature (power food made from soya beans) and are pumped full of antibiotics to survive these conditions. The occurrences of illnesses, such as mad cow disease, are unsurprisingly on the rise. Chicken are now often kept in 'concentration camps' - in conditions without light and where feeding portions are automatically controlled. Do we want to eat that? Only if we are unaware and have not had to witness it.

When we look at the history of industrial agriculture we can see that the first big movement occurred with the industrial revolution. With the discovery of oil as an energy source, steam engines began to run on refined oil instead of coal and machines became smaller and more compact. The use of machines increased and a new business model and criteria arose: the concentration of power in order to make money faster. The money began to be generated and circulated in the cities and the conversation shifted from quality to quantity. Humans invented machines allowing production to be independent of weather and soil conditions, creating higher margins. Now it was simply engineering, capital and workers that were needed, and the question: how to get people to work for very little? There were two factors:

- 1. Using machines for the agricultural sector, for farming and food processing. Machines replaced people in the fields and agriculture suddenly moved to large-scale production resulting in reduced biodiversity. Monoculture was born and machines could now be used more efficiently, enabling farmers to release their workers into the industries within the towns. Over the last two hundred years the number of people working in the agricultural sector has gone down from 70% to less than 5% in an average industrialised country. In Germany it is less than 1.5% (https://de.actualitix.com/land/deu/deutschland-die-beschaftigung-in-derlandwirtschaft.php).
- 2. Industries were located in towns to give easy access to the workers close by, enabling workers to be concentrated in large multitenant buildings to keep transport and living costs cheap and to more easily maintain control with the police or army (see <a href="https://en.wikipedia.org/wiki/Luddite">https://en.wikipedia.org/wiki/Luddite</a> or Kirkpatrick Sale: "rebels against the future"). The housing and building industry and the capitalising of the soil created other important streams of income and capital generating resources for investors. He who steals the goose of the common land goes to prison; he who steals the common land of the goose becomes rich.

The second big movement of industrial agriculture came after the World Wars. During and after both World Wars the political and industrial power became concentrated in the hands of a few. The nations needed soldiers as well as people to work for the big industrial companies producing machines and weapons. These people were taken from the agricultural sector and were replaced by machines and chemicals.

Nitrogen, for instance, is an important nutrient for plants and is used artificially to increase yield and growth. It is the key chemical element used to generate TNT (highly explosive dynamite). After the First World War, the use of Nitrogen was transferred from bombs to agriculture. However, the effects of these levels of nitrogen in the soil were not measured. The consequences of this resulted in drastically reduced O2 content in the soil and water and, in coastal areas, too much nitrogen causes algae to ignite. Instead of using external nitrogen sources from mines, nature has evolved plants that absorb nitrogen in the air. If a farmer rotates crops with legumes, beans, chickpeas or peanuts, which absorb the nitrogen in the air and channel it through the roots into the soil, external nitrogen is unnecessary. Plants never over-fertilise the soil due to the natural growth process. In 1938 A.I. Virtanen, a Finnish researcher, published a book, reporting on organic-N nutrition in plants, vitamins in foods and feeds and the nutrient cooperation of nitrogen fixing plants and non-fixers. For his work, he received the Nobel prize for Chemistry in 1945. The agrochemical industry rejects it due to the high profitability of the mined nitrogen along with other chemical businesses. Another disadvantage of using artificial nitrogen deposition is the resulting reduction in biodiversity across a country. This is due to the declining quality of the soil as chemicals are added (see Frankfurter Allgemeine Zeitung Natur und Wissenschaft, 28-11-2018). The use of nitrogen worldwide has increased from 17 million tons per year in 1960 to 118 million in 2010. We should not forget that areas of soil with rare nutrients have high levels of biodiversity. Therefore, we need biodiversity also in the soils.

Following World War Two, the chemical and pharmaceutical industries decided to repurpose the poisons they had developed to kill prisoners in their concentration camps and soldiers on the battlefields. It was at this time that the plan to introduce these toxins into the farming industry developed - to do away with manual weeding and instead have farmers use pesticides to eliminate weeds growing around their crops. To reinforce this plan, more chemical companies invested in seed production. They wanted to complete the circle and monopolise the industry: from seeds to chemical fertilisers and pesticides. Nearly all of the top 10 seed companies are also involved with the chemical industry (with the exception of KWS, Germany, which is a pure seed company).

The farmers no longer see the profits of their work, which instead go to the manufacturers of the machinery, chemicals and pharmaceuticals, the food transformers and distributors. The huge profits they gain are only possible due to state subsidies of food and farming itself: a weeding machine is subsidised but not manual weeding. The current habits and behaviour of the consumer from driving to the supermarket instead of going to the weekly market or independent organic shop, to the demand for imported, exotic foods all year round rather than eating locally and seasonally, directly support the retail and wholesale structures and profit. This in turn dictates costing to farmers worldwide. The entire food chain in dependent on cheap oil. If the oil price would jump up of factor 5-10 most non-oil countries will starve due to increasing food production costs.

What the industry does not declare is the pollution of the water, soil, air and food due to agrochemicals and antibiotics (see antibiotic resistance and the biology of history, by Hannah Landecker, University of California) and the cost to the tax payer to clean the water and soil again (in France it was calculated to several billion euros per year, see also https://www.ucsusa.org/food\_and\_agriculture/our-failing-food-system/industrial-agriculture/hidden-costs-of-industrial.html#.W3ly734na1s.)

#### Seeds, Food and Health – raising awareness

More and more consumers are waking up to the importance of buying good quality, local food. When asking various organic shop owners, I was told that their most dedicated customers are young couples with children. Some consumers in cities have begun to support local farmers by buying food directly from the farm or from farmers markets. In this way, the profit is beginning to shift back to the farmers and a dialogue is created between producer and consumer, especially in organic and biodynamic food production. Farmer's Markets are becoming popular again. Community supported agriculture, where consumers become a member of a farm, guarantee the budget of production, support harvesting and are personally involved with the farmers, even if the harvest is poor due to weather conditions. It is a model with real potential to balance producer and customer interests and could be used for all kinds of agricultural projects.

Today one kilo of carrots costs around €0.4 in the conventional market, and €1 in the organic market (Aldi Germany) whilst one tractor costs between €20,000 and €100,000. Meaning that large amounts of produce must be sold in order to afford a tractor. In order to obtain cheap labour, the produce must be cheap within the industrial business model. The workers are then likely to spend any surplus on goods and housing where the margins are really high and projectable. For example, a product such as an iPhone, has a total margin of more than 30%, whereas if you buy conventional carrots the margin is maybe 4-5% if you calculate the average over the years. Since the industrial revolution, most governments subsidise food and agricultural activities in order to keep the cost of living low (hidden in high taxes) as well as covering the cost of cleaning the agrochemicals from the water. A consumer who buys organic food pays twice. They pay a higher price for the organic product in comparison to the market price of the conventional equivalent and then they pay for the government subsidies to clean the water and to support the agriculture machinery with their taxes. But at least one thing is certain when buying organic produce - non-toxic food with higher a spiritual frequency.

## Development of Biodynamic Seeds and Plant Breeding

In the last 30 years, more and more seed initiatives, especially through the biodynamic associations, have been established. In the 1980's in Germany, some biodynamic farmers identified seeds as an issue that needed to be taken care of. They founded plant breeding and seed multiplication initiatives. This resulted in the set up of three companies; Bingenheimer Saatgut AG, a 100% organic and biodynamic seed production and processing organisation, the non-profit association Kultursaat e.V., which already finances 30 biodynamic vegetable,

flower and herb plant breeders, and the cereal plant breeding company Darzau. In addition to these came Sativa Rheinau AG, a 100% organic seed production and processing company, Peter Kunz cereal plant breeding and the non-profit seed-saving organisation ProSpeciaRara in Switzerland. In Austria, the organic seed company Reinsaat and the seed-saving organisation ArcheNoa established themselves on the map as well as DeBolster in the Netherlands. With revenue ranging between €6-8 million, all seed companies are profitable and plant breeding associations are funded by over €4 million per year. In the UK, the biodynamic seed company Stormy Hall Seeds was established and has now developed into the Co-operative Seeds organisation. In Denmark there are now several seed initiatives developing and in the USA is the organic seed alliance. There are now many seed-saving organisations across Europe, the majority of which are not-for-profit and volunteer-run. The problem is that these initiatives do not reach economy on scale and lack the ability to coordinate activities and combine forces. If all Demeter and organic farmers used organic and biodynamic instead of conventional seeds, the production would reach the volume and scale needed to earn enough to finance plant breeding independently. On the other hand, the growing awareness shows that seeds are an issue.

What we can learn from the existing organic and biodynamic seed companies? They show us how important it will be to create a model that can be replicated in various markets using local knowledge to serve local seed production needs. In 2015, a small, international group of passionate people from 6 countries (Belgium, Brazil, Germany, the Netherlands, Portugal and the UK) created an Iberian seed initiative, Living Seeds Sementes Vivas, in Idanha a Nova, Portugal (which has since expanded to include a site in Spain), producing and distributing organic and biodynamic seeds. The challenge was to establish and spread the local knowledge and wisdom of producing high quality seeds whilst taking production to a larger scale with the aim of empowering countries to be more independent in their food chains. The shortterm method would seem to be to produce high quality, open and self-pollinating seeds; traditional populations approved for multiplying and registered without plant breeder rights or patents, to promote organic and biodynamic agriculture as well as local markets and direct sales from producers to consumers. The current Portuguese government has defined organic agriculture as a strategic pillar. They have installed a promotional programme of organic food in public schools and hospitals. Idanha-a-Nova established itself as the first officially organic "Bio-region" and four others followed in its lead and received the same status in November 2018. The municipalities and the local people's initiatives play a vital role in this movement. The government and the municipality of Idanha have given the project a 50-year lease for land and building, which underwrites a 50-year commitment for organic seed production in Portugal. This public-private partnership seems to have created a lineage of publicly owned organic seeds for production and processing.

The production of organic and biodynamic seeds is based on a different business model; one that is participatory, shared, collaborative and network-orientated. The lack of knowledge and investment could potentially be partially compensated for by sharing, collaborating and networking in seed development and plant breeding. The exchange of seeds, trials of seed adaptations, knowledge in how best to clean seeds and which machines are necessary, how to manage the machinery for seed cleaning and processing, which storage to use with which temperature and humidity level, which kind of seed bag is necessary to guarantee a high germination rate - even under high temperature conditions of 45°C outside... these are just a

few of many questions to be answered. Networking with seed companies, research institutes, trainers and farmers reduces costs and generates more knowledge through the exchange of experiences. European initiatives like ECO-PB (European Committee of Organic Plant Breeding, eco-pb.org), FIBL (European Research Centre of Organic Agriculture and Plant Breeding, fibl.org), the EU organic farming and plant breeding project Liveseed (liveseed.eu), are all essential for improving local, sustainable projects such as Sementes Vivas. The collaboration of plant breeding programmes and seed multiplication projects with public institutions makes it possible to quickly and effectively gather local wisdom and seed material. The exchange of organic and biodynamic plant breeding experiences between Central/Northern Europe and the Iberian are requisite.

The only way to save our world is by introducing a new agro-business model based on networking, shared investment, localism and passionate collaboration with a larger proportion of consumers. "Small is beautiful" but small in collaborative networking is more beautiful.

## **Passion for Seeds**

The life force in biodynamic and wild seeds immerses people and sparks passion. Hold some real seeds in your hand and you will feel it. We must preserve a range of traditional seed varieties in order to reintroduce them to the agricultural and gardening circuit - multiple usages of seeds are the best and most affordable conservation method. In order to learn more about the different climate and soil synergies across the country, trials and multiplications need to be established.

After experiencing the world of virtual business and city life, the financial, housing, and industrial-crises in the last 20 years, it is time that we, our children and the future generations dig our hands into the soil, into the compost and into real, tangible farming practices to ground our souls. After decades of buying organic food in organic shops in several European cities it is shocking to discover that more than 90% of organic food comes from conventional seeds. We want the food that we eat to be healthy from the beginning of the food cycle, free from chemicals and pesticides in order to preserve the spiritual energy in our food.

The conventional seed production process requires 2-4 times more chemicals than the process of growing the crop itself, organically. Observing the food production in the USA it became obvious that the monoculture of wheat and the production of uniformed bread is not supportive of the spiritual development of mankind. Most food starts with seeds, so it is important that we generate seeds in a positive spirit and with a strong sense of spirituality. It is time to develop biodynamic seeds and, at the very least, more organic seeds to balance and reduce the conventional influence and promote vitality. 'Sowing seeds, sowing friendship', as we say.

To conclude, we would like to quote Michael Hedley Burton: "In former times present day thinking emerged out of a deeper, more universal consciousness that was not lodged in intellectuality, as it is today, but in more immediate and instinctive grasp of reality. Love is the greatest power in the universe, but trials are needed to awaken it."

"Food is your medicine and your medicine are your food", Hildegard von Bingen. Food starts with happy seeds. If we accept the integrity of the plant and come into dialogue with it - blessing our seeds, dancing and playing music in acknowledgement of them - we receive very powerful seeds. It takes time and patience but together we will slowly heal the earth and return to humanity. It is now in our hands.

#### Cycle of Seeds

The glory of seeds Spread by the winds By birds, animals and humans Accompanied and challenged by weeds To give us wisdom and hints Sponsored from the soil Looking for water to awaken life Waiting for the bees Pollinating flowers and growing plants Shading and breathing trees Feeding the world Being part of nature Playing with humans Flowering colourful and enjoying the universe By the fertility goddess hurled Changing in dialogue according our will Either breathed out or stored Giving birth and nurse to biodiverse Blowing over the hill Clouds of seeds Secret of life Absorbing cosmic energy Love and light Improving humanity – creating synergy In all eyes shining bright Falling down from heaven or hands Hiding in earth till rain drops awaken them Again and again