

multi kosmos

20 %
of Austrian land is
farmed organically
(= 17000 km²)

70 %
of global water
consumption is in
food production

About
7 t
per hectare of fertile
soil erodes annually
in Austria

Today, apples contain
up to
80 %
less vitamin C
compared to the past

INTERNATIONAL EDITION 2015

Significant

For one it might seem strange to point it out and others are not even aware of the condition and importance of our soil. [Page 3](#)

Down-to-earth

If we pay attention to life under our feet again, we will become aware of the miracles that take place there. By understanding all these multiplex relationships, soil will be a partner and as a result, nutrient contents as well as cultivation will be in balance. [Page 6](#)

Lively

Pure, harmonious and a little bit exotic – that's the taste of organic wine. For Gerald Milanovich-Hörmann beneficial micro-organisms are an important part of his vineyards and production. [Page 14](#)

2015



// 06

Rainer Maché
about the importance
of Soil



// 12

Family Errath
working entirely without synthetic
pesticides from the beginning



// 12

eMC®
probiotic cleaners –
cleaning with bacteria

03__ IN VIEW // Soil, a resource not just for exploitation
by Robert Rotter

06__ COVERSTORY SOIL // Soil – From the black box
to the farmer's friend

10__ LIVESTOCK PRODUCTION WITH FHE // Visions,
pioneers – Challenges and developments in South-Eastern Styria

12__ AGRICULTURE VEGETABLE // Everything's running
smoothly – Family Errath – a vegetable business since 2010

14__ AGRICULTURE WINE // Flavour authentic and alive –
Gerald Milanovich-Hörmann and his love for organic wine

16__ AGRICULTURE INTERNATIONAL // On the road to
success with organic agriculture – Zoltan Dragan and his flagship farm
in western Romania

18__ HORTICULTURE // Keeping an eye on the bigger picture
A family business from 1946 to now

20__ HOUSE & GARDEN // Of crazy people and idealists
Susanne Schütz and Anne Lorch about the impact of changes

22__ PROBIOTIC eMC CLEANER // Test passed!
Outstanding results for the probiotic eMC® cleaner

24__ MANJU // Naturally good for 20 years – With everything
that goes into it

26__ MULTIKRAFT PARTNERS // Well-informed – Field day
in Spillern 2014



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Soil

a resource not just for exploitation

by Robert Rotter

2015 has been proclaimed “International Year of Soils” by the UN Food and Agriculture Organisation (FAO). The aim of this initiative is to make our modern society again aware of the importance of soils and their associated cycles. To many people, especially those who love nature, it may seem odd to highlight the importance and necessity of protecting our soil, but upon closer inspection, it seems as if our society works very hard to turn away from this basis for life.

Ground and soil: even our language suggests that we once made a conscious distinction between a quantity of ground and the quality and properties of the soil it contains. Soil is not just the ground on which we live and move, it is a prerequisite for the production of most food and livestock feed. A functioning soil life supports the ability of the soil to act as a filter and storage medium for precipitation and is thus also of paramount importance for the quality of our drinking water. But the soil also supports our cultural landscape, is home to all land-based flora and serves as an important link in natural cycles. In 1972, the European Soil Charter expressly declared soil in addition to water and air as one of the most precious assets available to humankind that should be treasured for its role in providing us with a habitat, regulating our environment, and other benefits. Soil is not an asset that can grow; based on the current human population, there are just 0.2 hectares available per person to meet the nutritional needs of humankind.

But it’s not just about the surface alone; in addition to natural factors such as climate, slope and availability of water, it also depends on how these soils are processed, in particular, the interplay between proper cultivation methods, crop rotation, and consistent cyclical management affects soil fertility. Soil fertility is the ability of soil to bear fruit, i.e. to provide a habitat for plants and sustainably produce regular crop yields of high quality. The principle of feeding your soil to feed your plants has always been a central tenet for millennia of agricultural practice. The main focus of agriculture in the past, however, was not maximising profits, but developing the humus with the consistent use of cyclical principles by feeding the soil with organic fertilisers such as manure, crop residues and powdered minerals and also returning human waste and excrement to was once a matter of course. The preservation and promotion of soil fertility was the top priority.



Soil compaction, despite or perhaps because of intensive tillage.

Present-day practices reveal a considerable shift in this natural understanding of soils and its associated cycles. Our society lives and operates as though the resources of land and soil were available in unlimited quantities. About 5 % of the total land mass in Austria is zoned for building and traffic, 40 % of which has already been covered with buildings or roadways. Another 7 hectares a day are lost to buildings and roadways, while the total consumption of land (incl. sports and storage areas, factory sites) is 22 hectares a day. This corresponds to an area the size of 9,000 football pitches being “consumed” each year, a figure that continues to climb.

Healthy, functioning soils not only protect groundwater by filtering rainwater and partially breaking down pollutants, but they can also absorb the extreme peaks of floodwaters thanks to their ability to store water. The more surfaces that are made impervious, the more this potential is reduced. In some areas, such as agriculture, the growing use and depletion of soil as a resource is placing more pressure on the soil that remains. The progressive mechanisation and intensification in agriculture are causing conflicts with negative environmental effects.



.... may lead to erosion even on flat surfaces.

Compacted soils, soils lacking humus and the associated microbiological organic materials (clay-humus complexes), the use of monocultures, etc. are all leading to increased problems such as erosion due to water or wind. In Austria alone, about seven tonnes of fertile soil per hectare are lost every year, which unfortunately makes us among the leaders in soil erosion in the EU. A large part of the eroded soil is then carried away by waterways; for example, it is estimated that some 2.1 million tonnes of eroded earth is carried away by the Danube each year.

Everyone, but especially farmers, should be aware that this eroded topsoil is the basis of our existence, so preserving soil fertility as the basis of our existence should be our top priority. Unfortunately, the reality is completely different: the farmer of yore has evolved into a businessperson, whose goal is not so much to promote or even maintain existing resources such as humus content and soil fertility, but is instead compelled to manage their agri-business and food production solely on economic criteria. As a result,

increasing production, minimising costs and maximising profits are now the key performance indicators of what define the successful farmer (agribusinessperson). Agriculture has definitely embraced the motto of “get big or get out” and industrialised agriculture, with all its consequences, has taken over. Only one in twenty wage earners in Austria now earn their livelihood in agriculture and forestry. Small-scale farms are increasingly disappearing and many farms have to specialise in order to survive economically.

Farms exclusively devoted to fattening, milking, and breeding livestock are on the rise and they are so busy in fact that they no longer have the time and/or capacity to take care of managing their soils. Work on the fields and pastures is now outsourced to service providers who, in turn, need to maximise their profits by doing their work under time pressure with ever larger machines and without regard to the weather or soil conditions. This has resulted in some devastating consequences for the soil. Monocultures, salinisation, and compaction of soils, increased erosion, loss of biodiversity, manure run-off, the required use of pesticides, and increased greenhouse emissions from agriculture are all factors that have come about partly due to the industrialisation of agriculture.

Despite the overproduction of food especially in industrialised countries, 12 % of the world population is suffering from hunger. One out of every eight human beings on this planet is affected by hunger and someone dies as a result of hunger and malnutrition every three seconds. In stark contrast to this, the findings of a 2012 study showed that more people are dying from the consequences of obesity than malnutrition due to the mass production in the food industry, improved transportation and the consumption



Almost like before: “Krummstiel”, a very old and sturdy apple variety.



Mag. Robert Rotter

Ecologist and Limnologist

As a long-term user of beneficial micro-organisms, lecturer, and consultant for Multikraft, he stands by the motto: “Ecological thinking and acting can be wonderfully supported by microbes technology.”

In addition to his other work, Robert Rotter has farmed land he leases using organic methods for over 20 years with the long-term goal of developing the soil and preserving its natural fertility for future generations.

of pre-processed foods. It may sound ironic, but despite or even because of the high-calorie diet of the industrialised nations rich in fat and sugars, their populations are suffering from malnutrition of vital substances such as vitamins, minerals, and trace elements. The saying “We are starving as we look at full pots” is increasingly coming true, especially because many foods today only have a fraction of the nutritional content that they had just a few decades ago. One study showed that apples today contain up to 80 % less vitamin C than apples in the past. This trend is evident in many different food groups, including fruit, vegetables, grains and corn. Everyone can judge for themselves the extent to which this development can be attributed to breeding livestock for higher profits and increases in production accompanied with the intensive use of mineral fertilisers and pesticides.

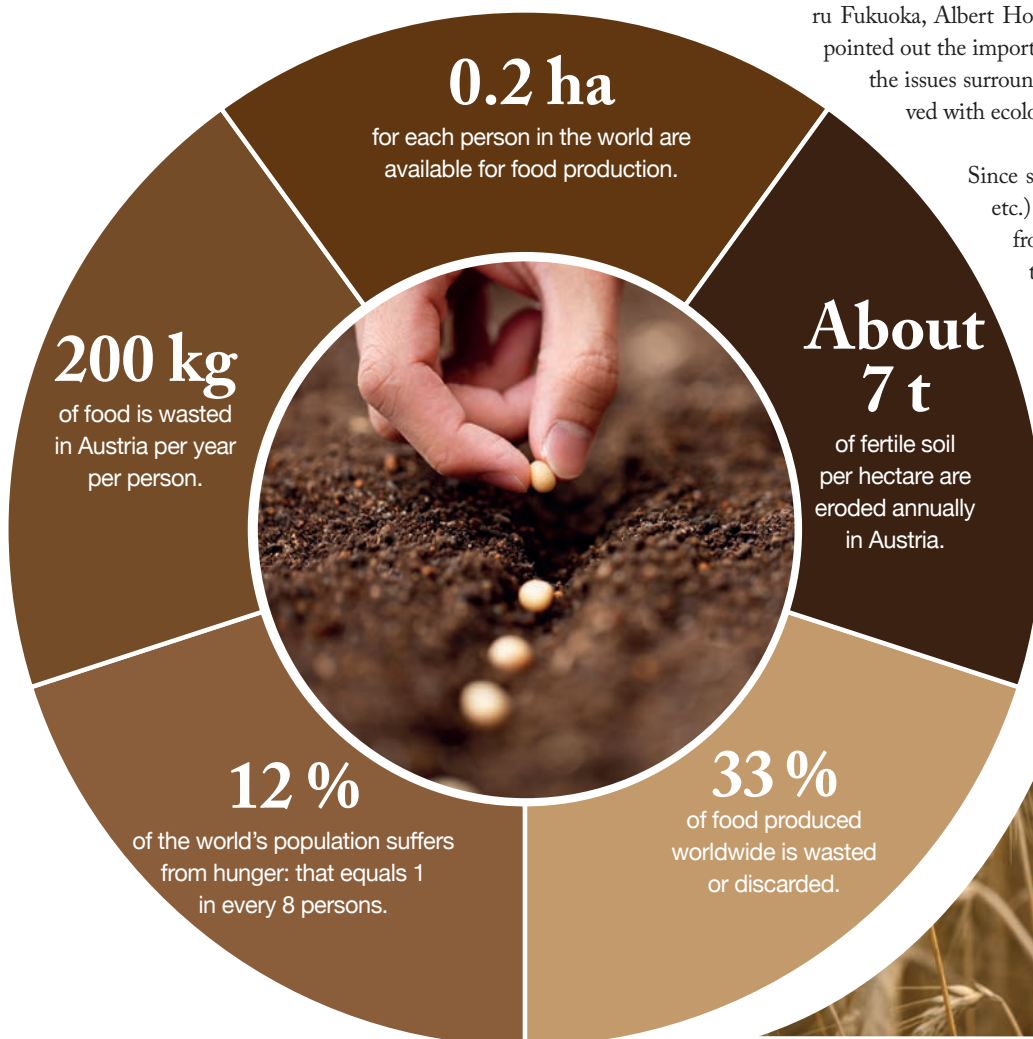
Another aspect of the increase in production has also led to a decline in prices for food products and the resulting depreciation of the value of these foods. According to a 2010 estimate, Austrians throw away more than 200 kg of food per person per year, once again putting us near the top of the pack in the EU. According to an FAO estimate, every year one-third of the food produced worldwide is lost or wasted. In developing countries, the problem is mainly due to lack of storage and transport facilities, while in the EU, for example, more than 89 million tonnes of food are lost or destroyed on its way to retail (through selection and oversupply in the markets) or thrown away



A study showed that apples today contain up to 80 % less vitamin C than apples in the past.

by consumers. In 2007, 1.4 billion hectares were required to grow the food and produce the dairy products and meat that were not consumed that year. If all of the food currently thrown away was fed to animals, this would free up enough farmland to feed 3 billion people. By 2050, the world population will be greater than 9 billion, some 2 billion more than currently live on the planet. Agricultural production will need to increase by 35 % if it only uses the land currently under cultivation. Starting in 2003, some 500 scientists spent four years drafting the World Agriculture Report which was to answer this question: How can the world’s future population be adequately nourished while preserving natural resources and reducing greenhouse emissions? The report made a clear statement about industrialised agriculture: “Business as usual is not an option.” The strategies recommended in this report were greeted with very little enthusiasm and are being implemented, if at all, with even less. Already in the last century, several scientists and practitioners including Family Müller, Ehrenfried Pfeiffer, Margareth Sekera, Raoul Francé, Masaru Fukuoka, Albert Howard, Gerhardt Preuschen and Hans Peter Rusch pointed out the importance of preserving the soil’s health and fertility and the issues surrounding the loss of soil, problems that can only be solved with ecological thinking and action.

Since soil (in addition to our drinking water, biodiversity, etc.) is only a finite asset, it does in fact need protection from over-exploitation and destruction and its functionality must be preserved. To ensure that future generations are able to use the soil that is the basis of our existence, I do hope that the upcoming “International Year of Soils” does in fact raise awareness of the importance and value of our soils and we once again realise that what the biologically correct solution is also the most economical (in the long run).





Soil

From the black box to the farmer's friend

Technology and chemistry has caused us to lose sight of the farmer's most important resource. Soil became property and high yields depended on artificial aids. Now this is changing. The intensive use of technology creates an intact seed bed in the short term, while causing many other problems such as compression, introducing weed seeds and erosion. Chemistry guarantees high yields, but leaves residues and question marks about product quality. The increasing cases of resistance and serious side effects show that lines have been crossed, especially with herbicides, but also with insect pests and harmful fungi control. The attempt to increasingly simplify how farms are run contradicts natural conditions.

Those who pay better attention to the life going on beneath their feet will be aware of the miracles that take place in the soil. Earthworms eat the straw while creating perfect aeration. Billions and billions of bacteria release the nutrients remaining in the crop residue; mycorrhizal fungi build a stable crumb structure. Relying on technology and chemicals may seem easy in the short term, but the life in the soil provides a better security for the survival of the farm in the medium- to long-term. The helpers in the soil largely operate for free but require greater understanding. Farmers learn how to observe the right times for different actions. They take into account the relationships between crop rotation and plant health and they remain calm when it rains at what seems to be the wrong time.

Soil biodiversity is particularly fascinating. As part of a joint project, scientists from the US, Canada, and Brazil have sequenced up to 53,000 different types of bacteria in agricultural soils; presumably there are still significantly more. For soil fungi, scientists from the famous Kew Botanical Gardens south of London have so far identified more than 80,000 species. This diversity guarantees the comprehensive functions that the soil uses and helps it to regenerate quickly in the event of drastic changes, such as floods.

This diversity requires passive care. The less the soil is intervened with, the better beneficial soil fungi and bacteria can develop and build stable structures. The goal must therefore be to return to flat tillage.

In all this euphoria for the soil, reflection must not fall by the wayside. This applies especially to certain ideas. In replacing technology and chemistry with biology, certain rules must not be disregarded. Like plants and animals, microorganisms also live off nutrients, not only nitrogen, phosphorus, and potash, but also calcium, magnesium, and sulphur, as well as numerous trace elements.

The nutrients discharged every year need to be replaced. It is an illusion to believe that everything is present in the soil. A standard soil test is not sufficient to determine whether, for example, there is also plenty of zinc and manganese present, two trace minerals that are lacking in many soils. Sometimes the micronutrients are established because the soil contains too much calcium. This means that the ratio of positively charged main nutrients (cations) is equally as important. Depending on the type of soil, 65 to 75 % calcium, 10 to 15 % magnesium and 4 to 7 % potassium as well as about 10 % of hydrogen ions is ideal, corresponding to a pH value of 6.3. Detailed information can be found

in the German edition of the book “Hands-On Agronomy” by Neal Kinsey, available through the company Multikraft. The cations are bound by the clay minerals and humus colloids and released by the root exudates in the vegetation period.

Nitrogen, sulphur, and boron are present in the soil as anions, and are therefore held in the soil more or less firmly. They are therefore subject to greater leaching than the cations. This is known when it comes to nitrate, but not borate and sulphate. The ammonium-containing nitrogen fertilisers quickly transform into nitrate. But the ammonium ion can also be bound in the clay minerals in exchange for the potassium ion.

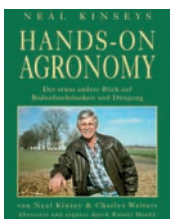
As a user of Multikraft products, you know that you can also help out biology a little. After all, the soil does not only contain good elements, it also has various pests that do not go away on their own. The more pathogens are present, the more important it is to change the ratio of useful to harmful micro-organisms. This is possible, but it requires a lot of patience. Growing nurse crops and catch crops is part of active biology. In the great outdoors there is no uncovered soil except for in deserts.

The more organic matter you give the soil, the more the yields will increase. When rotting, the plant constituents are converted into nutrient humus and to a lesser extent into permanent humus. The nutrient humus is a major source of carbon dioxide for the growing crop in the following spring. For the soil bacteria to be able to do its work, it needs nitrogen in particular, as well as the many other elements. This is why a high proportion of legumes is important for catch crops, and please do not forget the special trace element needs of rhizobia, which require a lot of iron, zinc, manganese, molybdenum, and cobalt. If those who operate organic farms keep both the nutrients and biology in mind, they can very quickly say goodbye to some disappointing yields. This is what I hope for you.

The important thing is that you do not just talk about it, but start with a small test area - ideally close to your farm. If you implement the suggested tips for better nutrient supply and the encouragement of soil biology there, you will be able to observe the changes up close very well. If you then compare the test area with an unchanged farmed neighbouring field, you will see the progress. In this way, you can eliminate the differences in yield between the different fields and generate sustainable high yields with a unique quality.



Pseudogley soil under deciduous forest



Hands-On Agronomy

Neal Kinsey, translated to German and amended by Rainer Maché

“Hands-On Agronomy” provides comprehensive insight into the relationship between soil fertility and plant nutrition. Neal Kinsey is a global consultant in this field, who has been making his living from his services for over 40 years.



Soil signals – a practical guide to fertile soil

Chris Koopmans, Jan Bokhorst, Coen ter Berg, Nick van Eekeren; edited by Rainer Maché

“Soil signals” is a richly illustrated reference book aimed specifically at practitioners who want to get answers to their questions about soil quickly. The 92-page booklet addresses all important topics about soil.

Soil chemistry in a positive sense

Mr Maché, for nearly 40 years you have written first for “DLG-Mitteilungen” and then for the customer magazine “Flur und Furche” published by John Deere on all subjects to do with agriculture and in doing so initiated many new ideas. Now you are retired, but have not stopped focusing on soil in this new stage of your life. Why?

Soil is similar to intestines. Just as the intestines must digest everything we eat, the soil must process everything we offer it such as fertilisers and pesticides. My gut has given me problems, so I had to undergo several operations and treatments. By doing something good for the soil as an agricultural journalist, I also mentally contribute to my own recovery. Both the intestines and the soil harbour billions of micro-organisms. They provide us with nutrients, break down pollutants, but are eventually overwhelmed if we do not treat them with care. The consequence of this is intestinal diseases and soil damage, both of which are not so easy to fix.

Last year you translated and amended the book “Hands-On Agronomy”. The book is less about biological issues, but instead primarily about the right nutrients. Why is it not sufficient to give new life to the soil mainly by dispensing with synthetic pesticides and fast-acting fertilisers, as is attempted in organic farming?

The soil biology is important, but it is only one of three pillars on which plant production rests. The first pillar provided by nature is the soil physics, i.e. the composition of the soil with sand, silt, loam, and clay. Soil biology is a friend of soil physics. It makes a living organism out of dead rock. For me, the soil is a living organism that is more than the sum of the different types. But for the soil-dwelling earthworms, springtails, bacteria, fungi, and many other species to be able to carry out their tasks, they need nutrients, not only nitrogen, phosphorus, and potash, but also calcium, sulphur, magnesium, and many trace elements. This means that not only the plants, but also the soil-dwelling organisms need nutrients to live and to be able to carry out their tasks as best as possible. This is what I call soil chemistry. I recommend that all followers of organic farming do not see this as a negative term. Even we humans can't do without trace elements. Many people know that muscle cramps are caused by magnesium deficiency. The lack of selenium leads to increased heart attacks. Additional selenium and zinc doses are also recommended with chemotherapy.

Which fertiliser recommendations can you give for organic farms?

The most important recommendation is a conscientious soil study that analyses more than just a standard soil sample. The nutrient ratio in the soil exerts a decisive influence. Too much calcium determines the trace elements manganese, zinc, and copper; too much phosphorus blocks zinc. Fertilisers that are approved for organic farming are fundamentally suggested for the study, as recommended in the book “Hands-On Agronomy”.



And how do beneficial micro-organisms fit in the system you describe?

Since there are not only positive-acting fungus and bacteria in the soil and on plants, it makes sense to deter pests using beneficial micro-organisms, for example. No short-term changes can be expected from this, but those who are patient will not need to use fungicides after a few years. This has particularly impressed me on fruit farms, which I visited in July around Graz. In conventional apple orchards, on average fungicides are sprayed 24 times per season. This would no longer be necessary.

Rainer Maché

freelance agricultural journalist in VDAJ (association of german agricultural journalists)

After studying agricultural science, Rainer Maché worked for nearly 40 years first as an employed agricultural journalist for the “DLG-Mitteilungen” and then for the journal “Flur und Furche” published by John Deere. After his retirement last year, he translated the book “Hands-On Agronomy” by Neal Kinsey, a leading expert on soil fertility and plant nutrition, and took on the editing for the book “Boden Signale” for the Dutch Roodbont publishing house.

Visions, pioneers

Challenges and developments in South-Eastern Styria



Trails in this hilly landscape once home to active volcanoes take hikers to vineyard taverns or a number of thermal springs. About eighty towns and villages in this south-eastern corner of modern-day Austria have banded together to market their region as “Steirisches Vulkanland (“Styrian volcano land”).”

A land of volcanoes

For a long time, this corner of Austria was considered the hinterland of modern Austria and was experiencing a massive emigration of its native population. The exploitation of the region’s natural hot springs became the first step in the region’s efforts to develop its tourism potential. In 2000, Styrian legislator Josef Ober helped push the region’s continued transformation into a place of innovation that people would choose to stay in by creating the Steirisches

Vulkanland marketing brand. The term comes from the volcanoes that were active here millions of years ago and remain visible to this day as the region’s hills. “The brand has since grown considerably and has come to represent high-quality foods and craftsmanship and sought-after recreation areas. Communities, individuals, and various companies are all involved in the development of the region,” says Josef Ober.

A pioneering path

There are still some challenges to be overcome. Restructuring and changes in the market have led to a drop in the number of the region's farms and individual farming operations are becoming larger. This is partly due to the high consumption of cheap meat from supermarkets, which has resulted in every larger pig farms and complaints from residents about the associated odours in some areas. This has led to protests and neighbourhood conflicts. "Larger pork farming operations have to struggle against the ammonia contamination in village locations. The smell is a big issue in the region," says Maria Pein, who took over the family farm in the 1990s.



Maria Pein on her pig farm.

The number of pigs has since tripled, but for Ms Pein, complaints from neighbours are not an issue. "We have seen healthy growth in our farm and now have 140 sows and piglets. We find it important to curb the smell with feed additives because I would like to set a good example," explains Maria Pein. Since 2001, the farm has been using fermented herbs extract and has had remarkably good experiences with it. "We use 10 litres of the herbal extract and 5 kg of filter coal per tonne of feed. We also add the extract and coal to the manure runoff: this has significantly reduced the odours and results in good air conditions in our stall. I feel very comfortable when I'm out there working with the animals."

"On top of that, a special bonus is that we have had no flies in the barn since we started using the FHE (Fermented Herbs Extract). I believe more and more farmers will have to start using this in their operations and so it's important to keep track of which products are actually effective," says Maria Pein. Josef Ober believes the odour problem will be solved in the next five years: "We're not allowing any taboos to keep us from working on this issue and, as a result, there are farmers who are already breaking new ground. We want to explore alternative, affordable products, and provide evidence of their effectiveness with a research programme into feeding variants and types of odour control."

A study by the Institute of Agricultural Engineering at the University of Natural Resources and Life Sciences Vienna has shown that FHE (Fermented Herbs Extract) reduces odours and environmental gases such as methane and ammonia. The results show a 35 % reduction in the emission of greenhouse gases. Spraying FHE (Fermented Herbs Extract) on the animal waste has resulted in a 78 % reduction of odour emission potential.

Additionally, ecological variations have a positive effect on the groundwater and soil life. "If we keep moving in this direction, I see a good future for the livestock in the region. I helped move the state parliament to pass restrictions on farm sizes while still ensuring the livelihood of our farming families. We need to reject massive livestock operations from being set up by outside companies. We need to value the farming economy we have. This includes raising consumer awareness about the value of good food. We need to ensure people have a more accurate, positive and real image of agriculture. After all, it is the farmers who provide us with our food, not the retailers. We need to make production and farming practices more ecological and more sustainable. This is the only way to ensure that we can once again become more understanding, tolerant, and neighbourly with our region's farms," says Josef Ober.



Since 2001, FHE (Fermented Herbs Extract) has been added to feed and waste run-off.

Visions and energy

To further raise awareness and create a region that is a desirable place to live, Josef Ober initiated the "Volcano Land Soil Charter" in 2013: "With climate change, there are periods of heavy rain and drought. We need to become less dependent on fertilisers and chemicals in farming and instead strengthen our ecosystems. The aim is to increase the fertility and capacity of soil to absorb water and mitigate erosion via organic methods." With the energy vision for 2025 and a wide range of farms, Josef Ober has also helped initiate the shift to renewable types of energy. "We are making good progress. Retaining and improving the value of the soil, our agriculture, and our region are the top priorities." The land of volcanoes in south-eastern Styria thus stands for sustainability and a high quality of life. By encouraging tourism that is gentle on the environment, we are creating an attractive holiday region that scores with culinary delights, extensive hiking trails, and many recreational activities.

Everything's running smoothly

In Carinthia's Lavant Valley, Karin and Karl-Gregor Errath have been growing vegetables on their family farm since 2010. "Lettuce, tomatoes, turnips, peppers, beets, cabbage, carrots, potatoes: everything you need in a vegetable garden," says Karl Errath happily, who emphasises the use of natural cultivation methods in growing their vegetables.

The vegetable crop thrives on 2.5 hectares of open land and, depending on the season, also in four foil tunnels. The potato fields cover an additional 1.5 hectares. All have been cultivated without synthetic pesticides and mineral fertilisers from the beginning. Instead, the Erraths use beneficial micro-organisms and plant-based aids together with organic fertiliser in the form of slurry and manure from the farm's 700 or so pigs. Since Karl Errath was introduced to them in 2004, they have had good experiences with Multikraft products.

Wide use

"In the first step, we mixed FHE (Fermented Herbs Extract) into the feed. We soon noticed that the pigs and piglets were much livelier and healthier. We then added BB Soil to the manure, which made it less thick. Over time, an environment with regenerative microorganisms developed. So everything's running smoothly here in Carinthia," says Karl Errath. Due to its positive effects, all barn surfaces including the slurry channels are sprayed with an Plant Power solution (1:3) after being thoroughly cleaned with water. This has eliminated the stench and Karl Errath is happy with the good environment in the barn: "We work so much with microbes technology because we see how good it is for the barn, the animals, and the plants." Introducing Multikraft products to their vegetable cultivation also went well. From the very start of the planting

very good results with these applications. The lettuce and vegetables are more resistant, resilient, and vital."

In 2014, Karl Errath also treated seed for the first time with Multikraft products: "We had collected our own winter wheat seed from the previous year for so-called cloning. We treated the seed with BB Soil, BB Multical, and EM ceramic powder and the winter wheat grew perfectly." For several years now, winter wheat and winter barley have been treated with Multikraft products in the autumn followed by two to three treatments with BB Foliar and BB Multical in the spring to achieve very good results. "The grain is much more vital and we've been able to counter potential fungal infestations in winter crops," Karl Errath summarises.



Vital and resistant vegetable plants in the field



Large selection of various types of lettuce in the field

Good quality

The wide use of beneficial micro-organisms in natural cultivation pays off for the Errath family business. The demand for vegetables grown without chemicals is increasing in their region. The vegetables are sold at farmers' markets in St. Andrä and Wolfsberg and to restaurants and various types of lettuce are also delivered to a local supermarket. Direct sales on the farm are also taking off as people notice and appreciate the good quality and natural taste of the vegetables grown by the Erraths. "Our lettuce is freshly cut every day. We are delighted if we hear that our lettuce tastes like lettuce from people's own gardens," says Karl Errath.

The Erraths are especially proud to support a project to supply fresh vegetables to kindergartens, crèches, and primary schools in the area and to bring the children out for farm tours. As Karl Errath recalls, "The children crawl barefoot through the tunnel and eat tomatoes directly off the vines. It was nice to see the enthusiasm of the children and to show them how vegetables naturally grow. Children are, after all, the future."

season begins, the vegetables are sprayed once or twice every week with the cultivation spray. A mixture of BB Foliar, Terrafer Foliar, and MK 5 is added to the water each time they are sprayed to prevent diseases and pests and minimise spoilage bacteria. Manure and slurry is also treated with Multikraft products and allowed to ferment for one month before being used as fertiliser. "We have



Karin and Karl-Gregor Errath



Flavour authentic and alive



Organic is consistent with our beliefs, because it helps us promote life.

Anyone who walks with open eyes through the vineyards in the small Lower Austrian municipality of Mailberg at the end of April is sure to notice the vine rows where the grass is quite yellow. These are the vineyards where a total herbicide containing the active ingredient glyphosate was sprayed to keep the vines free from grass. In between, there are also green rows: these belong to the Gerald Milanovich-Hörmann family, one of the few organic wine growers in the region.

In recent years, the family business was gradually changed to organic viticulture, stopping the use of chemicals, and giving beneficial micro-organisms an important role here in the care of the vines as well as the whole vineyard. Gerald Milanovich-Hörmann's experiences with Multikraft products? "Very good," he says in an interview with multikosmos.

Originally, Gerald Milanovich-Hörmann worked in a bank. When his wife Ute took over her parents' ten-hectare estate in Autumn 1999, he decided to change professions, learn the craft of winemaking, and with his family decided to convert the estate to organic farming. It is very understandable that this decision was not easy, since there was a lot to consider and it remains a major challenge to this day. "As a career changer, you also have advantages, because you see some things from a different perspective and question a lot." It also quickly became clear that ecological methods were the philosophy that best fit his family: "Organic is consistent with our beliefs, because it helps us promote life."

In 2006, the Hörmann farm was classified as an organic farm and, after a three-year transitional period, produced its first certified organic wine in 2009. "We have not only stopped using synthetic pesticides and mineral fertilisers, but we also very rarely use wine treatment products. Our grapes are not sulphurised and there's a lot less sulphur used in the production of the wine," says Milanovich-Hörmann. "Some of our wines, especially red wines, are stored longer and bottled unfiltered to keep all of the ingredients in the wine."

In 2011, the family started using beneficial micro-organisms. "We sprayed Multikraft products and BB Soil in conjunction with powdered minerals on our soil and also used this mixture with our mulching. We have had very good experiences with both," says Gerald Milanovich-Hörmann. "I get the feeling that the soil is healthier and the topsoil has already become much looser, as spade samples demonstrate. The soil in the neighbouring vineyards is much more compacted and harder." Beneficial micro-organisms are also used for



cleaning on the farm, creating a noticeably positive development in the microbiology of the vineyards and the wine cellar.

As the conversion to organic took place slowly and steadily, customers were also informed little by little about the many changes being made with the new ecological approach. Even though a number of fellow winemakers are still sceptical, acceptance is beginning to rise. “We are now benefiting from the organic trend. Many people buy our wine precisely for this reason.” The Milanovich-Hörmann family benefits from their years of experience with organic viticulture, while others are still just beginning. In the past three years, a lot of previously unthinkable practices have been implemented in the area.

And how does the organic wine actually taste? “I would say unadulterated, harmonious, lively. For many, perhaps even a bit exotic. The same as with food. Fresh potatoes are unusual to people who are only familiar with flavour-enhanced frozen chips,” says Milanovich-Hörmann. “Our wines have the whole diversity of nature in them.”

If you are interested in using Multikraft products in viticulture, **specialised Multikraft consultants** would be happy to help you. If you would like to taste the Hörmann family’s organic wine, have a look at www.weingut-hoermann.at

On the road to success with organic agriculture

In Salonta in western Romania, near the Hungarian border, Zoltan Dragan's flagship farm is surrounded by fruit trees, willows, and poplars. The 40-year-old is one of the few in the region who has converted his farm for the most part to organic farming.

In 2013, the yield on the organic acreage was 20 % higher than the conventionally farmed products.

When he decided ten years ago to switch from conventional to natural farming, most of his colleagues thought he was "pretty crazy," the farmer with a university degree says with a smile. Today, the 260-hectare family business is flourishing, not least because of the strategic use of Multikraft products. In 2013 alone, the yield on the organic acreage was 20 % higher than the conventionally farmed products.

The Dragan farm has a chequered history. In 1955, the family farm was nationalised and incorporated into a collective farm where Zoltan Dragan's father



worked as a dairy man for 37 years. "We always had a couple of cows at home because of this," says Zoltan Dragan. In 1991, the state returned the grounds to the family and they began to run the farm conventionally. The same crops are still grown on the farm: wheat, spelt, rye, sunflowers, corn, barley, alfalfa, and canola.

Zoltan Dragan, who also takes an interest in alternative medicine and will soon begin studying psychology, has been interested in organic farming for a long time. In 2001, he took the plunge and largely converted his farm to





an organic one. Since learning about the effectiveness of beneficial microorganisms on an excursion in Switzerland in 2008, he has also been using them successfully in his fields: When sunflowers and rapeseed are knee high, Zoltan Dragan uses 20 litres of BB Soil and another 30 litres of BB Soil once they have reached a height of one metre. For wheat, spelt, rye, and barley, he applies 30 litres of BB Soil onto the fields two or three times, depending on the weather. For fertiliser, he exclusively uses a special natural fertiliser from France (200 kg/ha on average, in total about 26 tonnes per year).

And the success is both visible and measurable. Dragan's farm now has some of the most modern farm equipment in the area with two tractors, a subsoiler, a motor mower, over plough, cord seed machine, hay grippers, cultivators, a hay press, and a grain drying and grain-cleaning system. Additionally, there are 150 laying hens, 30 dairy cows, three oxen, and a horse.



And we were able to achieve double the price for our organic products – compared to our conventional products.



In 2013, the yield on the organic acreage was 20 % higher than the conventionally farmed products. “And we were able to achieve twice the price for our organic products – compared to our conventional goods,” says Zoltan Dragan, who also has a lot of plans for the future. First, he wants to grow spelt, sunflowers, rye, wheat, and maize as soon as possible from stable, old varieties, which can be propagated again. Then he plans to build an air-conditioned storage for fruit, a wine press and a distillery, “and then a new, larger tractor is on my wish list.”



Keeping an eye on the bigger picture



“ Plants that blossom a lot,
need plenty of good nutrition.”

Since 1994, Karl Gleissner's farm in Brunn am Gebirge near Vienna has grown into a well-known flower wholesale business. The enterprising gardener is always going out into the world and brings back a lot of knowledge about the cultivation of flowering plants.

Having grown up in the horticultural business founded by his grandfather in 1946 and later managed by his father, the business has been Karl Gleissner's home away from home since childhood. It has now been four years since Karl Jr. took over his father's business. On just 1.5 hectares, he grows a rich assortment of decorative plants and bedding and balcony flowers throughout the year. "We have everything that blooms and belongs in a flower box, especially primroses, violas, and geraniums in a variety of colours in spring," says Karl Gleissner. Chrysanthemums with all their colourful splendour particularly look wonderful in autumn and Mr Gleissner knows it is best to let them grow in large bushes. From summer to Valentine's Day, cyclamens in a variety of colours and sizes are a special focus of his assortment.



Primroses and violas in full bloom

"The micro cyclamens grow just like the mammoth cyclamens that can get up to 50 centimetres across. We have become known for our cyclamens in Austria." In order for them to achieve their vitality and size, they need enough time to grow and, as Karl Gleissner notes, above all the skill of the gardener and the right care. About 100,000 cyclamens from the Gleissner nursery are sold annually in specialist shops. "We supply gardeners and specialty stores throughout Austria, from Vienna to Tyrol, from southern Carinthia to the northern border with the Czech Republic," says Karl Gleissner, for whom the best quality of his plants is very important.

For the care and quality of the plants, he always looks at the bigger picture and educates himself about seedling production businesses and growers both locally and internationally. "My grandfather used to say you can learn more over a glass of wine at the inn than at home. Instead of going to the inn, I go to other countries, talk to plant breeders and learn as much as I can. We exchange experiences as to what works well and how to work with the inherent properties, resistance, durability, shape, size, and colour of plants. You need to have good intuition for these issues and I just really like this work," says the gardener who is constantly learning about how he can best grow his plants. This is how he discovered Multikraft products and has been using them on a regular basis since 2010.



The most important issue with microbes treatment is regular use.

The young plants that spend three to four days in quarantine are watered with BB Soil and Terrafert Soil. "The young plants are delivered from Austria, Germany, and the Netherlands. The entire process of transportation, packing and unpacking, and temperature fluctuations is very stressful for the plants. We spray them with an Plant Power solution and this relieves the stress," says Karl Gleissner. After potting, all of the nursery plants are sprayed once a week with BB Soil, Terrafert Foliar, MK 5, and FPE. In autumn, the cyclamen blossoms are no longer sprayed due to spotting, but BB Soil and Terrafert Soil continues to be fed to the plants through the irrigation system. "Using Multikraft products works very well for us. In fact, we have since scaled the use of fungicides right down to zero," he notes with satisfaction. "The plants are always vital, their leaves do not wither, and they suffer less fluctuation between dry and wet." For Mr Gleissner, the increased resistance to pests is also a positive, as well as the reduced need for fertilisers, since the root systems of the plants receive the nutrients better and more compactly through the soil.

"The most important thing with beneficial micro-organisms is regular use: the same goes for flower beds and potted plants at home. Plants that bloom need plenty of good feed." Karl Gleissner recommends spraying flowering plants and the surrounding hedges as often as possible with BB Soil, Terrafert Foliar, MK 5 and FPE, because this keeps away pests that don't like the odour of fermented products. "If the plants are freshly planted, it is good to water them with BB Soil and Terrafert Soil. This revives the substrate and the plants absorb the nutrients from the soil much better. All this makes sense and is reflected by the vigorous flowering plants," concludes Karl Gleissner as he begins repacking his bags and is on his way to the next international trade fair.



Karl Gleissner Sr. and Jr.

Of crazy people and idealists

It takes success to prove pioneers right. Until then, it takes courage to go against the mainstream.

From time to time we hear in the media about those ideas that can cause individuals to break new ground and persevere as they go against the flow, but only when the idea has been deemed a success. Until then, it takes a lot of endurance. Susanne Schütz and her husband Martin are among the pioneers of organic farming. For more than forty years, they have managed to inspire with their courses and lectures thousands of people to begin growing without poisons and artificial fertilisers and pass on their experiences in practical ways.

Convinced that soil fertility can only be maintained in the long term with organic materials, Susanne and her husband have had unwavering confidence as they made a major contribution towards rethinking conventional farming and turning to organic farming, helping many happy gardeners to make the change, despite the suspicions and opinions of others, such as “It won’t take long before these ‘crazy people’ ruefully start using poisons and artificial fertilisers again, but only in secret at night when no one can see.”

When Susanne and Martin decided to operate their farm organically more than 40 years ago, it was a bold decision. There was no confidence that this type of farming could succeed. They lacked experience and they were just trying

Susanne Schütz and Anne Lorch at a shoot for their latest book „Mit EM durchs Gartenjahr“ (“Through the garden year with EM”), Summer 2013



Cultivate lamb's salad in summer too. It is planted in the gaps between other vegetables.



With Multikraft products, mixed crops are possible without complicated planning.

what our ancestors had once practised contrary to the conventional wisdom that poisons were essential to modern agriculture. Now the Schütz family receives a lot of positive feedback, for example, when a visitor to the village asked where the organic farm is. One of the villagers responded: “Oh, you’re looking for those idealists? I’ll drive ahead in my car and show you the way.”

The founder of bio-organic agriculture, Dr Hans Müller, once emphasised: “If you’re still being plagued by snails, you’re doing something wrong.” But he couldn’t say why it was wrong. So Susanne invested a lot of time and ener-



Strong root weeds; instead of putting them in the compost bin, ferment them into valuable Bokashi.

gy into keeping the snails at bay with all sorts of methods such as collection, scalding, ashing, organic slug pellets, etc. She always made compost according to the latest findings, but the rot at the heart of the pile remained. The “opponents” of garden vegetables were always kept in check every year with some sort of organic tool in order to yield a good harvest. Organic aids degrade quickly and are environmentally friendly. They are expensive, but fit into the scheme. Susanne therefore had to treat the symptoms for 30 years without addressing the root cause of the issue.

The thing with beneficial micro-organisms

When Susanne first learnt about beneficial micro-organisms in 1998, she could see immediately that if everything they say about it is true, then this is how we will get to the root causes of many garden problems. She remained sceptical, telling herself that the proof is in the pudding. But she soon saw success. Nevertheless, she did not dare to tell her students about it, because she didn't (yet) have the courage to spread the news of such “a miracle cure.” There had already been enough of that in the past. In 2002, however, she travelled with a group of like-minded people to Thailand, where the mixture had been used on a large scale for many years on the Sekei-Kyusei farm in Saraburi. From then on it was clear that she didn't have to create counterarguments because the opponents no longer had an argument. Rot was no longer a given and, after a few years, there was no need for any sort of “remedy” on the organic farm in Emmental. The garden soil and everything that grows in it no longer sends out rotting signals due to the use of beneficial micro-organisms. Even the snails were no longer interested in the vegetables and lettuce.

Beneficial micro-organisms became the main topic in lectures and courses, but it was not as easy to teach the students about Bokashi instead of conventional



Do not cut endives in cold frames right down and leave them to sprout again several times. This results in 3 harvests per plant in the winter.

composting without being declared insane. Could people believe that methods for finding black gold would no longer be necessary? Composting would be easier and the non-stop shifting of the pile a thing of the past? But the results from soil treated with beneficial micro-organisms can be seen, smelt, tasted. A number of organic aids are no longer necessary. You can eat vegetables that are healthy and make you healthy with an optimal amount of antioxidants.

The next major impulse in modern organic farming was the use of Terra Preta (Bokashi with charcoal). Susanne was curious to see the results in her garden and would like to gather all her courage to try this variation, perhaps even with the contents of a composting toilet?



In the Terra Preta garden, the sunflowers are growing as high as a house. Kitchen waste and the contents of the compost toilet are Bokashi composted with charcoal into top-grade fertiliser.

Only the courage to leave behind old habits, even in the garden!

Susanne has plenty of tips to share:

- After several years of using Multikraft products, the immune strength of the soil is so stable that you can shelve complicated mixed crop planning because soil fatigue is now a thing of the past.
- Beneficial micro-organisms awakens the soil life and provides warmth in its work, which allows many vegetables to stay in the patch over winter.
- Cut sugarloaf, endives, and leeks a few centimetres above the ground, so that new plants can develop from the heart. This works because there is no rot.
- No more stubborn root weeds such as goutweed, bind weed, milk thistle, or couch grass and nettles to go in the organic waste, instead, mineral-rich plants are used for the Bokashi (fermentation).
- Lamb's lettuce tastes good even in summer. Sown in perforated plates, the adolescent plants are placed in gaps in the vegetable rows. Another nuance of flavour is thus added to the lettuce season.
- No fear of damaging buds: Pea straw or old beanstalks no longer have to be incinerated or put in the compost bin, but instead can be composted using Bokashi. Do not tear the roots with their nitrogen-collecting nodule bacteria, but leave them as nutrients for the soil.



The eMC® cleaners are also used in the canteen.

Test passed!

Outstanding results for the probiotic eMC® cleaner

For many years, commercials have been advocating a completely germ-free household. They start with the fear of infectious diseases and tell us that bacteria are harmful. But, actually, the majority of bacteria are useful, as confirmed by the Institute for Environmental Hygiene at Vienna General Hospital, because the regenerative microorganisms living in our homes train the human immune system, especially in children and teenagers, making the body less prone to diseases and allergies.

Probiotic eMC® cleaners support a positive environment. They are gentle on your skin, your respiratory tract, and your environment, ensuring good indoor conditions, and when it comes to their cleaning power, they are easily on par with synthetic detergents, as proven by a comparative study recently conducted by the University of Natural Resources and Life Sciences Vienna (BOKU) at the Federal College and Secondary School for Business Professions in Kirchdorf an der Krems, Upper Austria.

At school

The school's nutrition sciences teachers have been integrating sustainability, environmental compatibility, and healthy lifestyles into everyday school life for a long time. "We are part of nature and that's how we should be living. This mission encouraged us to use eMC® cleaners in our courses and canteens," said Herta Bauer, the head of the nutrition sciences department. Together with hygiene officer Nina Trinkl and canteen manager Claudia Kinbacher-Mitterhuber, she describes their experience with eMC® cleaners.

What criteria apply to cleaning supplies used at the school?

Impeccable hygiene is the top priority. The health of students and cleaning staff, the ease of use, environmental compatibility, sustainability, and compliance with the Hygiene Guidelines for commercial kitchens are all important to us. As part of the study, eMC® kitchen cleaners were used for kitchen utensils and eMC® power cleaners were used for the kitchen, countertops, and floors and compared to our usual cleaning agents and disinfectants.



The cleaners were also tested in the patisserie.

Would you please briefly describe the procedure?

We first evaluated our hygiene plans and decided which foods and cleaning areas would be used for the tests. Multikraft prepared precise instructions for us on the use of the eMC® cleaners during the test. The countertops were always split into two sections and each step was carried out on each one. Katrin Fattinger, Quality Manager at Multikraft, then used the eMC® cleaners on one section and the teachers used the comparison cleaners to ensure an exact, identical process. University employees then took more than 500 samples from the cleaned surfaces. In addition to the critical spots in any professional kitchen such as the egg, vegetable, fish, and meat preparation areas, work areas such as patisserie, serving, floors, and dishwashing areas were also tested.



An eMC® cleaner was tested alongside a conventional cleaner on each test surface and subsequently disinfected.

Strong performance

How would you summarise the results and will you start using probiotic cleaners at your school?

The results were overwhelming. We were very happy with the high level of cleanliness and disinfection. eMC® cleaners are preferable because probiotic cleaners are gentle on the skin and more environmentally friendly, they are easy to use, and, above all, they hold their own when it comes to hygiene. They make cleaning easier and save time and money. Because of the spray bottle, you do not use too much. The students are enthusiastic and appreciate the positive impact on health and the environment. The kitchen now smells quite different: much more like nature!

Have you completely converted to eMC® cleaners?

In the study, the Upper Austria Health Board was represented by Heinz Waltenberger, who confirmed that the authorities support a change to these

cleaners. Only the highly sensitive surfaces (eggs, meat, fish, and root vegetable areas) will be additionally required to be thermally disinfected (steam cleaning). Unfortunately, the dishwashing detergent, polishers, and liquid hand soaps cannot be replaced entirely. Our goal is to switch the cleaning of the entire school to probiotic agents.

At home

What tips do you have for using probiotic cleaning products at home?

Nina Trinkl: Not so many different cleaners would be needed at home: two are enough. Just add water to concentrate in spray bottles. If something is very dirty, I increase the dose and exposure time. I use eMC® cleaners for doing my laundry and cleaning my oven, kitchen, bathroom and windows.

Claudia Kinbacher-Mitterhuber: I'm only going to use eMC® from now on. I have gotten rid of all other cleaning products (with the exception of an environmentally friendly detergent to aid with heavily soiled laundry). These eco-friendly cleaners have also won over friends in the catering industry because they work wonderfully, protect the health of employees, and are also affordable.

Herta Bauer: As a garden enthusiast, I have been a fan of Multikraft products for a long time. Inspired by the enthusiasm of my colleagues, I changed my household cleaners to eMC®, too. A good idea: we are all a part of nature and that's how we should live!

„eMC® cleaners offer significant advantages in controlling microbiological contamination compared to tested chemical cleaners and disinfectants.

The study shows that eMC® cleaners can be beneficially used from a food hygiene perspective.“*

* Extract from the report by Professor Dr. Werner Pfannhauser



Naturally good for 20 years

With everything that goes into it.



Enzyme groups

We have known for thousands of years that the right foods can have a positive effect on health. Each person consumes 60 to 70 tonnes of food over their lifetime and malnutrition (eating the wrong foods) can cause serious ailments to the body. Scientists have been working for years on so-called bioactive substances that can protect against the negative consequences of oxidative stress, amongst other things.

Papain

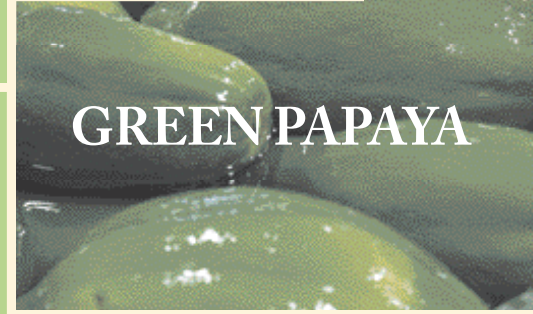
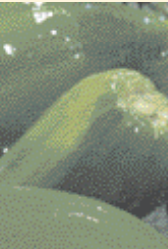
Breaks down proteins, promotes digestion, known for its antioxidant and anti-bacterial effect.

Found in: green papaya

Lipase

Breaks down fats, promotes digestion

Found in: green papaya



Vitamin B group



BROWN RICE

Amylase

Breaks down carbohydrates, promotes digestion

Found in: green papaya

Vitamin B1 (thiamine)

For physical and mental performance, synthesis of fatty acids, and important for balanced cholesterol. Vital for the function of the heart muscle and the digestive system. Can be found in all organs.

Found in: outer layers of all types of grains such as rice bran, seeds, nuts

Vitamin B3 (niacin)

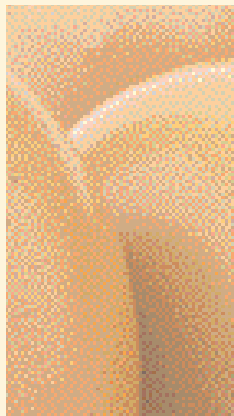
A component of vital coenzymes and thus involved with the digestive system, cellular respiration, and control of cholesterol levels in the blood; maintains mental health, healthy skin, and elasticity of tissue.

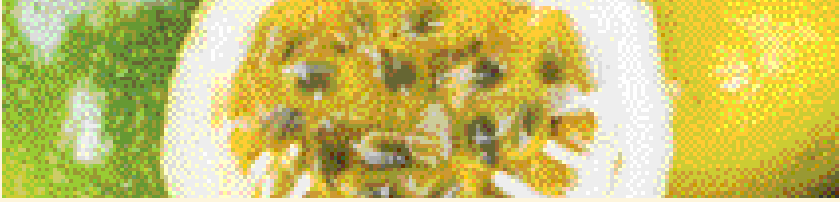
Found in: meat, nuts, and grains such as rice and rice bran

Vitamin B2 (riboflavin)

Hugely important to the entire metabolism, essential for red blood pigment, and thus for iron absorption. Vital for children.

Found in: grains such as rice or rice bran, milk, organ meats, eggs, nuts, seeds, fish





Vitamins

Vitamin C

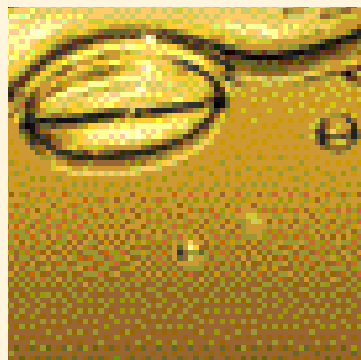
Linked to all growth processes and is essential for the formation of collagen. In particular, protects brain cells and the spinal cord from damage by free radicals.

Found in: especially in citrus fruits, but also in fruits and vegetables in general

Vitamin E

Protects valuable unsaturated fatty acids by preventing their oxidation (making it an antioxidant).

Found in: seed oils such as rice bran oil



Minerals and trace elements

Calcium

Without calcium, there is no coagulation. About 99 % is in the bones and teeth

Found in: milk, seaweed such as kelp



Potassium

Vital for heart and blood vessels and essential for regulating membrane potential and our water resources.

Found in: dried fruits, mushrooms, spinach, and green papaya

Magnesium

Necessary for normal muscle function, moreover it regulates the electrochemical voltage throughout the body, through which the active ingredients can reach the cells.

Found in: nuts and seeds, as well as whole grain rice



RICE BRAN

Ferulic acid

Natural antioxidant

Found in: fruit peel such as rice bran, amongst others

Beta-carotene, lycopene (phytochemicals)

Cell-protective effect as an antioxidant, prevents free radicals.

Found in: deep yellow to orange or even dark green types of vegetables and fruits such as green papaya

Linoleic acid (unsaturated fatty acid)

Essential fatty acid important for voltage in blood vessels and the function of nerves and the brain. It forms tissue hormones and has a positive effect on the skin.

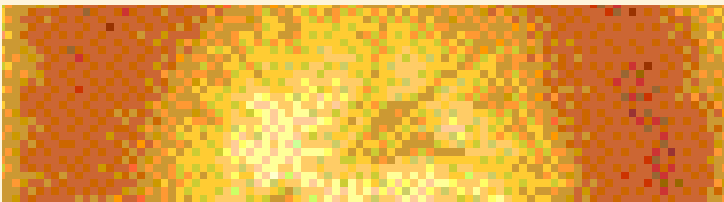
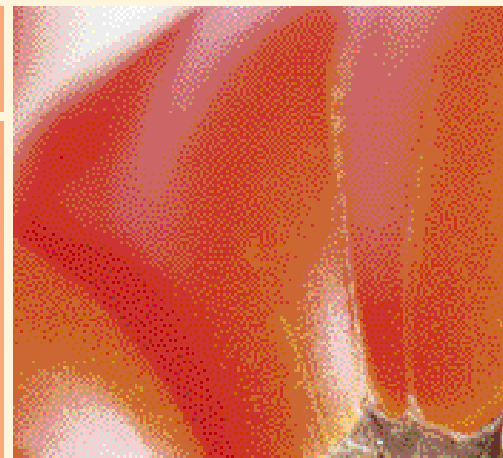
Found in: vegetable oils such as rice bran oil

Other

Gamma oryzanol

Lowers cholesterol

Found in: rice bran oil and rice bran



Spillern

Well-informed



Field day in Spillern, 25 June 2014

The invitation from Harmer KG to a field day in Spillern, Lower Austria, was once again taken up by many comers this year. About 200 farmers travelled from Austria, Poland, Croatia and Bosnia-Herzegovina came to the organic farm in the beautiful wine district.

“We have already researched and developed a lot about the application of Multikraft products,” reports Multikraft CEO Lukas Hader on working with Harmer KG and its 250 hectare organic farm since July 1999. Farm manager Franz Reidinger demonstrated interesting innovations such as using a subsoiler in conjunction with microorganism injections and new agricultural techniques such as pneumatic weed control.

“The guests are happy that we’re showing progress year-over-year and the use of beneficial micro-organisms has proved to be sustainable,” says Lukas Hader. During the field tours, he painted a detailed picture of the use of Multikraft products in various crops. Large panels set up by Multikraft displayed important information directly on site about the cultivation of each crop and the dose and application of Plant Power. The opportunity to exchange experiences and lessons learned in various areas of application was greatly appreciated.





Around 200 farmers attended the event.



Franz Reidinger, operations manager of Harmer KG



Subsoiler with spray equipment for BB Soil



Producing odourless Bokashi



Exchange of experiences during the field tour

Thomas Weinhandl, for example, was enthusiastic about the ease of use, dosage, and application of Plant Power. He decided this year not only to use beneficial micro-organisms at home and in the garden, but also for his grain, corn, soybean and pumpkin crops and was pleasantly surprised by the results. The weather conditions for pumpkins were bad in Styria in 2014, especially with a chilly and

“ We have already done a lot of R & D about the application of Multikraft products.

rainy Easter, but Weinhandl’s pumpkins grew wonderfully. Karl Totter has been using FHE (Fermented Herbs Extract) for years, especially in silage, and has seen great improvements in his livestock’s digestion. The health of his livestock is a top priority for Josef Platzer, too, who markets the pork products he raises in Styria. He uses Plant Power there in the fields and FHE (Fermented Herbs Extract) in his feed. He is impressed with the health of his animals. “Once you start using this technology, you won’t stop,” says Josef Platzer, summarising his experiences.

On the subject of Plant Power in agriculture, manager Franz Reidinger had prepared valuable tips and shared what he has learned about the application and accurate dosing of Multikraft products. He has had only positive experiences with them and sees a particular advantage in the immense increase in the soil’s capacity to retain water. He has also observed that the grains have fewer diseases, the protein content has increased, and winter crops were better able to withstand the winter. “With field corn, I noticed that Plant Power has raised the starch content and nutritional value and the plants are also healthier and more vital,” he said. With potatoes, the tubers are more consistent in shape, resulting in more goods that are marketable.

Finally, the field day looked at the farm’s organic compost system where beneficial micro-organisms were first introduced fourteen years ago. They have changed the fermentation process in such a way that now there is neither rot nor odours. Another advantage is that there are no annoying flies.

“ Once you start using this technology, you won’t stop.

After an intense morning where the thirst for knowledge and hunger for information were satiated, the guests’ physical hunger was great and so this year’s field day once again finished around a lovely roast suckling pig. We would like to thank the numerous guests and everyone who was involved for what was once again a wonderfully organised and successful event. We are already looking forward to welcoming guests to another field day in Spillern next year.

Worldwide,
0,2 hectares
per person are
available for food
production

Biodiversity worldwide
has been reduced from
1970 to 2010 by about
52%

33%
of all food worldwide
is wasted or discarded

The forest ecosystem
offers protection,
habitats, water, fuels &
food security for over
2 billion
people