

Biodynamics in the world

Newsletter October 2018

## Dear members and friends of Biodynamic farming,

All talk about weather — more and more about climate change. More frequent droughts on one side and increasing strong rains on the other are witnessing that our earth is in fever. We should bring into the public debate even clearer that we can offer with Biodynamic farming the broadest solution for the healing of the earth.

The photo shows preparation making at St.Michaelsday on Reyerhof, Stuttgart with apprentices.

"Even if the earth would perish tomorrow, I would plant an apple tree today"

Martin Luther

Christoph Simplendorfer

# Agricultural Section at the Goetheanum

- We need developmental Research
   An Overview of Biodynamic Research at International Conference
- World Goetheanum Forum
   The World Goetheanum Association was founded in May. The first event organised by the Association was the World Goetheanum Forum. 180 people took part
- First Biodynamic training course in Ukraine: completed!

  This extraordinary one and a half year experience was

This extraordinary one-and-a-half-year experience was made possible by the collaborative work between the Ukrainian organic farmers association and a farm practicing Biodynamic agriculture in western Ukraine and Maryna Bogdanek

The programme of the upcoming Agricultural Conference 2019 is available online





### Demeter-International

### **Board**

• First meeting of the new board The new board met after the MA in June

### International Certification Office

New certifications Since April there have been nine new contracts

### Reports from member countries

- Country profile: Demeter-Brazil Introduction of the Brazilian Association of Biodynamic Agriculture (ABD) and its Participatory Guarantee Systems (PGS), and the certifier IBD Certificações
- Annual meeting ABD-PGS In August the annual meeting of the ABD- PGS took place with 37 farmers from different groups attending
- Demeter Conference in Hungary After a one-day Demeter Consultation day in February 2017 a demeter continuous training weekend was offered for the farmers
- Foundation of the Demeter Biodynamic association in Turkey

On Saturday, 15th of September, around 30 people were gathered to found the Demeter Biodynamic association in Turkey.

- Nobody can resist the drought An interview with Ueli Hurter about the drought in Europe
- Drought in the Netherlands, the summer of 2018 Despite a cold start the year quickly picked up pace in April and by August temperatures were 3°C above normal. Biodynamic farmers faced less problems than conventional farmers.

### Reports/ various

- Biodynamic viticulture conference in South Africa The farm at Reyneke Wines in Stellenbosch held a 2 day Biodynamic wine conference in mid-June 2018 with guest lecturer Dr. Georg Meissner.
- Heliopolis University opens first Faculty of Organic Agriculture in Egypt and calls for international students With the start of the new academic year, on the 23rd of September 2018, Heliopolis University (HU) will inaugurate its new Faculty of Organic Agriculture.

 New study links common herbicides and antibiotic resistance

A new study finds that bacteria develop antibiotic resistance up to 100,000 times faster when exposed to world's most widely used herbicide

## Dates & events

- 25th-27th of October: Biofach India, New Delhi, India
- 25th-27th of October: International Biodynamic Wine Conference, speaker: Jean-Michel Florin, Vina Matetic, Chile



- 25th-28th of October: National Biodynamic Meeting, Contact: encuentrobiodinamico@shambhalaorganico. com.mx, Rancho Shambhala, Comanja de Corona, Jal., Mexico
- 31st of October-3rd of November: Circle of Representatives - Meeting of the Members of the Circle of Representatives for Biodynamic Agriculture, probably Dornach, Switzerland
- 6th 9th of February 2019: Agricultural Conference The Economy of Agriculture - between farm individuality and global economy (multilingual), Dornach, Switzerland
- 13th -16th of February 2019: Biofach, Nuremberg, Germany



## Agricultural Section at the Goetheanum

### We need developmental Research

### An Overview of Biodynamic Research at International Conference

The research results show that Biodynamic agriculture has an influence on many fields of life - it contributes for example towards improving food quality, advancing animal well being and stabilising the climate.

Biodynamic agriculture is counted among the pioneers of organic pro-

duction. New vegetable and cereal varieties are being developed (Sativa Rheinau, Bingenheimer Saatgut), procedures for evaluating food quality are practised (copper chloride crystallisation) and through the application of compost and Biodynamic preparations, soil fertility is improved. New models for land ownership are also being developed. Biodynamic agriculture combined research and practice from the very beginning. One of the current research projects is focused on improving animal well being. The separation of the calf from its mother is one of the most difficult moments to bear. Mechthild Knösel from Rengoldshausen farm (D), Anet Spengler from FiBl the Swiss Organic

Research Centre and Silvia Ivemeyer from Kassel University (D),

have been looking for solutions and have developed an approach

First International Conference on Biodynamic Research: Véronique Chable (French National Institute for Agricultural Research) and Jean-Michel Florin (Co-director of the Section for Agriculture at the Goetheanum)

which has even received enquiries from conventional farmers. Daniel Kusche from Kassel University (D) has demonstrated that milk produced under Biodynamic management is more digestible than that originating from other systems. A field trial in India showed that Biodynamic practices sequester more carbon dioxide in the soil than other approaches thereby contributing towards climate stabilisation.

A hundred contributions about the work being undertaken on farms and at universities were shared with the 180 participants who attended the International Conference on Biodynamic Research which took place at the Goetheanum from 5th - 8th September. Jean-Michel Florin co-director of the Section for Agriculture at the Goetheanum said: "Biodynamic research employs scientific methods and is always open to new approaches. We need research that not only offers proof but also furthers development and addresses the concrete questions that farmers have".

The Goetheanum is at the centre of a globally active network of spiritually engaged people. As the headquarters of the School of Spiritual Science and the General Anthroposophical Society, it provides a platform for discussing spiritual questions and for further training in the arts and sciences.

Sebastian Jüngel, transsation by Bernard Jarman



### World Goetheanum Forum

The World Goetheanum Association was founded in May. It enables companies, institutions and initiatives both with the Goetheanum and among themselves to enter into a lively exchange and concrete cooperation. So far about 80 organisations have become partners. The Initiativkreis (circle of initiators) includes: Helmy Abouleish, Rembert Biemond, Fabio Brescasin, Michael Brenner, Gerald Häfner, Ueli Hurter, Paul Mackay, Georg Soldner, Armin Steuernagel, Ioana Viscrianu, Verena Wahl, Justus Wittich.

The first event organised by the Association was the World Goetheanum Forum. 180 people took part, including many decision makers such as the CEOs of leading anthroposophically inspired banks and young people with the ability to approach issues in new ways. They came from Canada, USA, South Africa, Egypt, India, Vietnam and many European countries to take the opportunity to meet, network and exchange ideas. Thematically, a clear profile emerged on what is important for sustainability and further development beyond the borders of the anthroposophical environment. In particular, however, the needs in the world and the opportunities that are given when these needs are perceived and addressed became clear.

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Ueli Hurter

## First Biodynamic training course in Ukraine: completed!

Since our last article, published in the Newsletter of Demeter-International in February 2017 on the situation of agriculture in Ukraine, and my first attempts to carry on the work of Xavier Florin to develop Biodynamic agriculture there, the first 20 day training course on Biodynamic agriculture in Ukraine has just ended.

This extraordinary one-and-a-half-year experience was made possible by collaborative work between the Ukrainian organic farmers' association and a farm practicing Biodynamic agriculture in western Ukraine (managed by Schiwa Semlja, a Swiss association) and myself as project coordinator.

At the beginning, we had only a great will to bring Biodynamic agriculture in Ukraine. Things developed step by step, first thanks to the Section for Agriculture at the Goetheanum which gave the opportunity to Ivan Bojko (farmer) and Elena Berezovska (organic association president) to participate in the Agriculture Conference at Goetheanum in 2017.

Filled with enthusiasm and guided by the same Idea, our journey went on...Our next step was the creation of a Ukrainian association for the development of Biodynamic agriculture in May 2017. Almost 40 participants (farmers, consumers, scientists) attended the establishment of "Biodynamic Ukraine". Our first project consisted in the setting up of a Biodynamic agriculture training course for Ukrainian farmers. This project was ambitious as we wanted to invite European Biodynamic experts to the Ukraine and the financial costs were high. Yet, the Forces of the Universe made it possible as in July we obtained financial support from the AFC (German project for organic agricultural development in Ukraine) to start our first module in August 2017 with 20 participants (organic farmers with farms from one to more than 5,000 ha).

The total training course comprised 7 modules, covering many aspects of Biodynamic agriculture: soil, plant and animal sensitive approaches, rhythms, Biodynamic organisms, preparations, nutrition... Throughout the year, we went through moments of doubts when faced with financial or simply human relationship issues, but thanks to a successful crowdfunding campaign in January, to the support of the Swiss association, to the funding of the three last modules by the AFC, and to new impulses in our working group, we have managed to complete our 20 day Biodynamic training course.

The last module took place on Ivan Bojko's farm in September 2018, with Jean-Michel Florin as a trainer on the subject "Building a Biodynamic agriculture farm" which was the quintessence of all the themes that the participants have discovered during the course, and which gave new perspectives to Biodynamic agriculture in Ukraine.

Maryna Bogdanek m.bogdanok@bio-dynamie.org

Back to top



## Demeter-International

# Board

## First meeting of the new board

The newly elected Board of Demeter-International at its first meeting after the Members' Assembly in June. After his recovery, Jean-Marie Defrance was warmly welcomed into the round. In front of the Glashaus, where the autumn meeting now traditionally takes place



from left to right: Cornelia Hauenschild (ICO), Alexander Gerber (Vice-President), Helmy Abouleish (President), Petra Derkzen, Jean-Marie Defrance und General Secretary Christoph Simpfendörfer.

Christoph Simpfendörfer



## International Certification Office

### New certifications

Since April there have been the following new certifications/contracts:

- All Natural Foods Doo/Serbia: apple processor. Demeter inspection by CERES. Contact: n.bolpacic@ allnaturalfoods.rs www.allnaturalfoods-organic.com
- Prasini Omada Messaras IKE/Greece: Trader for olive oil. Demeter inspection Bio-Hellas. Contact: manolis@evripidis.com www.prasini-ike-gr
- Gourmet Gardens Ltd/Uganda: 33 small farmers with 43ha cocoa and vanilla in conversion to Demeter. BD consulting by Erik Frydenlund. Demeter inspection by Ecocert. Contact: c.fehr@gourmet-gardens. net www.mountains-of-the-moon.com
- Plantaciones Agricola Manzanillo Srl. (PAM)/DomRep: 356ha bananas in conversion to Demeter. BD Consulting by Klaus Merckens. Demeter inspection by CERES. Contact: bguerola@plantacionesdelnorte. com
- Bananos Ecologicos De La Linea Noroeste (BANELINO)/Dom Rep: 10 small farmers with altogether 30ha bananas, partly Demeter, partly in conversion to Demeter. BD consulting by Klaus Merckens. Demeter inspection by CERES. Contact: bfernandez@banelino.com.do www.banelino.com.do
- Compras Americas/Colombia: 106 ha of bananas in conversion to Demeter. BD Consulting by Klaus Merckens and Ingo Mordhorst. Demeter inspection by CERES. Contact: lh@oficinasamericas.com www. dominiquebananas.com
- Superuco/Argentina: Small winegrower with 1ha of vines. BD Consulting Rene Piamonte. Demeter inspection by Fundacion Demeter Argentina. Contact: micheliniwine@gmail.com www.superucowines.com
- CAFFEE PERU G1 SOCIEDAD ANONIMA CERRADA/Peru: processing and export of coffee. Demeter inspection by IMOCert. Contact: jcrivas@kaffeeperu.com www.kaffeeperu.com
- Shanghai Organic-Scent Trading Co., Ltd./China and Organic-Scent SDN BHD/Malaysia: distributor of Demeter vegetable juices. Contact: wenwen214@hotmail.com

### Resignations:

- CAFETALERA AMAZONICA S.A.C. (CAMSAC)/Mexico
- El Recuerdo/Argentina
- Tropical Health Food (pvt) Ltd / Sri Lanka
- SANYAH Innovations Group Ltd./Ghana
- Karvounis Stelios/Greece
- FAIA/Portugal

We warmly welcome all new partners!

Cornelia Hauenschild



# Reports from member countries

## Country profile: Demeter-Brazil

The Biodynamic Institute was founded in 1983 at Centro Demeter in the city of Botucatu / SP, and transchanged its name to Brazilian Biodynamic Association (ABD) in 1995. In 1999 due to the increasing activities in certification as a consequence of accreditation requirements, the certification work was separated and IBD Certificações as stand-alone Association was created. The ABD retained all other activities such as research, consultation at no cost with the support of institutional partners, publications, courses, manufacturing of Biodynamic preparations etc. As result of the continuing growth of our work the company IBD Certificações Ltda was created in 2008. Currently, with the collaboration of 43 internal employees and more than 185 inspectors, it is active in the certification of all the schemes that IBD works with worldwide. All IBD Certificações clients use the service of ABD in purchasing preparations, advisory and training in Biodynamics, on a free voluntary basis, that is, all these services can also be sought elsewhere if preferred. ABD is responsible for adapting and preparing the editions of the Demeter standards for Brazil. Training of IBD inspectors is done at ABD with integration of ABD personnel. IBD focuses on the activities of Biodynamic operators (producers and processors) with respect to audit and certification; we work to expand Demeter certified areas in Brazil through certifications services and train inspectors to evaluate the operators under the Demeter certification standards adapted to the reality of Brazilian tropical- agriculture. Through intense media presence, and other means that IBD has at its disposal, many producers learn about Bio-

dynamic agriculture.

About the Demeter certified farms in Brazil: During 2016 IBD certified about 935.99 hectares. In 2017 it was 973.4 hectares. Now in 2018 we already have about 22 farms and 1,406.24 certified hectares with another 370.25 hectares in conversion to Demeter. This represents a growth of more than 30% in the Demeter certified area during these two years. This is a strong upward trend reflects the development of tropical Biodynamic agriculture. An interesting new certified producer is Lucas Teló Walter (Walter Seeds); his Biodynamic conversion time is completed and he has received his first Demeter certificate. Located in the south of the country, this operator produces Biodynamic rice exclusively for the Brazilian and European Biodynamic markets. In the two last years there has also been growth in certified processing operators - covering a wide range of Biodynamic products, such as cereals, coffee, honey, tropical fruit pulps, concentrated orange and mandarin juice, essential oils, rice, ice cream, dried medicinal plants, chocolate and other cocoa derivatives. Due to the biodiversity in the country, Brazilian certified farmers produce a lot of different products, the main crops are: coffee and cereals such as rice, corn and wheat. Tropical fruits like açaí, banana, cocoa, coconut, cupuaçu and guava are also produced and in addition there are many producers of vegetables and medicinal plants whose main destination is the pharmaceutical and cosmetics industry. The processing operators cover chocolate, roasted coffee, rice operators and the famous Brazilian frozen concentrated orange juice. Other interesting and unusual products are the ice creams (lemon, mango, passion-fruit) and essential oils (mandarin, ponkan, lime).

The main challenges we face are that Demeter certification is not well known, the difference between Demeter and organic is not so easy to explain. If this issue was clearer we could have more expansion. Demeter-International does a great job. However in the countries where a national structure already exists, its action is more restricted. Costs for traveling in this continental country are high and regional workshops are necessary. Demeter-International could focus on creating regional international trade conferences to stimulate international and national trade in Demeter products by bringing examples and stimulating

For me Biodynamics/Demeter has been a life-long motivator, providing as it does a depth of understanding of the natural world, high product quality achieved though the production methods and offering lifequality through Anthroposophy.

Alexandre Huberto Harkaly Alexandre.h@ibd.com.br

Back to top



### Participatory Guarantee Systems (PGS) in Biodynamic agriculture in Brazil

In 2010 the ABD began the PGS with four groups of Biodynamic small farmers. These groups had already been having organic certification by audit as well as market credibility. However, these groups opted for the PGS due to the high costs of the certification system that they had been working with, as well as because they were attracted by the richness of the interaction and the exchange of experience amongst farmers which occurs in the participatory systems.

Producers interested in participating in the PGS must be linked to a group of PGS producers. The new applicant producer must first apply for recognition as a Biodynamic / organic farmer by the group to which he belongs. At least 70% of producers in each group must be practicing Biodynamic management.

The Participatory Organism of Conformity Evaluation, POCE is the legal guardian of the PGS in the Ministry of Agriculture. In the case of ABD's PGS, the POCE members are composed of representatives of each regional group, and an ABD representative. The POCE organises all the different groups, files their documentation that was generated in the field, and makes the documentation available for the Ministry of Agriculture audits and monitoring

Each PGS group must elect three members to be part of the evaluation committee, which is responsible for organizing and implementing field visits, and forwarding documentation to POCE. Each group must appoint a representative of the evaluation committee to be part of the POCE.

Each property registered with POCE must be visited twice a year. The evaluation committee will define the order and frequency of visits. An expert appointed by the POCE must participate at each visit. Consumers are also encouraged to participate in the field visits.

At least quarterly, the group must meet for training and technical studies of Brazilian legislation and Demeter standards. After evaluation of the field report, the ABD commission will approve or disallow the use of the Demeter label on the products sold by Biodynamic farmers.

After six years there was an increase of seven more groups and increase of farmers in all groups totalling approximately 60 farmers and four processors. Since 2010 ABD has required as a rule to participate in the PGS that each group had 70% of farmers with Biodynamic management, but not with Demeter certification. After 7 years, there are 10 Demeter farmers and 2 processors and another 20 farmers in conversion to Demeter.

### **Challenges and Opportunities**

#### 1. Demeter standards

Some points of the Demeter standards are difficult to execute in the Brazil:

- Low availability of Biodynamic, organic and conventional untreated seed
- Vegetable farmers dependent on external organic matter, of conventional origin
- Low availability of feed produced with Biodynamic or organic ingredients; Low availability of non-transgenic soybean meal;

Challenges of adaptation of the Demeter norms to the different Brazilian ecological conditions. Need for constant Biodynamic training of farmers.

#### 2. Government bureaucratic process

- Complexity of traceability processes in the certification of food processing units.
- Excessive bureaucracy required by the Ministry of Agriculture, requirement for many documentation evaluation meetings and less time for field evaluation;

Three groups are evaluating the possibility of returning to third part certification.



#### 3. External issues

- Incipient Demeter market not stimulating the final conversion of Biodynamic producers
- Low participation of consumers in the participatory certification process;
- Interest of farmers from other PGS in Demeter certification. Opportunity to extend this certification.

#### **Conclusions**

There are challenges to adapt the Demeter standards to the different Brazilian ecological conditions.

There is the need for constant Biodynamic training of farmers and need to increase the Demeter certified number of farmers per group.

The experience accumulated so far has shown that the PGS enables greater participation and awareness of the certification process by the producer. On the other hand, it requires a greater dedication from the producer to the certification process and not all farmers are willing to become more involved in this process.

Pedro Jovchelevich Associação Brasileira de Agricultura Biodinâmica, Brasil pedro.jov@biodinamica.org.br www.biodinamica.org.br

## Annual meeting ABD-PGS

In August the annual meeting of the ABD- PGS took place with 37 farmers from different groups attending.

The meeting was held at the Maria family farm in Iperó-SP-Brazil. The farmer, in conversion to Demeter, produces vegetables for a group of 50 families in the CSA Sorocaba. He is also initiating the production of vegetable seeds for the ABD (Brazilian Biodynamic Association).

The agenda for the meeting was:

- Demeter certification Guidance for visits in the 2nd semester and evaluation of the number of Demeter and Demeter in conversion farmers up to the end of 2018
- Debate and deliberations on the restriction of the use of manure of conventional industrial origin and treated seeds in the organic certification of the PGS-ABD
- Exchange of experiences from evaluation visits in the 1st semester
- Updated list of available Biodynamic, organic and untreated seeds
- Public consultation of the National Normative Instruction of organic agriculture
- Agenda for visits in 2018 and 2019
- Annual accounts
- Reports: XIII Brazilian Conference on Biodynamic Agriculture; VIII
- Fair of exchange of creole seeds of the State of São Paulo

We finished with dynamisation and application of preparations

Pedro Jovchelevich







### **Demeter Conference in Hungary**

The Hungarian Biodynamic Association has been the main organisational factor in Hungary's Biodynamic life for the last 18 years. The Board of the Association understood the needs of the Biodynamic farmers, listened to the call of the natural and the social environment and decided to try and make a new step forward by organising events for those interested in Biodynamic agriculture.

Besides the annual Winter Meetings in January and the regular preparation making events in the spring and the fall, we organised a one-day Demeter Consultation day in February 2017.

Seeing the good impulse of this programme we decided to try and put together a Demeter Continuous Training weekend for those who already certified Demeter Farmers or who are in the certification process. We first agreed on the date then invited every Demeter farm to Karcag for the weekend of September 28-30th. Forty people arrived to the excellent Nimród Hotel and Organic Restaurant in Karcag at Friday noon on the 28th of September 2018.

The programme began at 2pm that day, preceded by a good organic lunch. Welcome speeches were given by Mihály Mezei- the chairman of the Hungarian Biodynamic Association- Mrs Margit Hubai- one of the owners of the Hubai Farm Association as our host- and by Péter Roszik as vice president of the Biokultúra Association.

Three lectures were planned In the programme planned - two held by Thomas Lüthi and one by Peter Kunz. Both of them were of great value and showed their enthusiastic knowledge of the topics which shone through their words. The first lecture was held after the welcome speeches by Thomas Lüthi about Demeter World Wide and its structure, with interesting examples.



On Saturday, after Peter Kunz's lecture on grain breeding in the morning all of the participants travelled to visit the host farm. We all participated in the farm's preparation making workshop. The whole Saturday programme had been held outdoor except mealtimes. Before dinner there was a planned time for consultation and for open questions to the lecturers. After this there was a thirty minute cultural programme as we invited a folk singing choir of the region. Also, the vintners and some fruit growers brought their products that we could taste during meal times.

On Sunday there was a lecture in the morning about the preparations by Thomas Lüthi, followed by the young Imre Hubai who gave a lecture on the state of Hungarian Agriculture as a whole including the state of the Biodynamic and Organic Farming in our country.



Mihály Mezei closed the programme, summarised the three day training, talked about the Hungarian Demeter movement and the upcoming possibilities and work that we have to and want to do. He presented an example how the Farm-Talks could be done in the future in the different countries as a possibility. After lunch our Demeter Training in Karcag ended. Our experience and the positive reflection of the participants show that conferences like this will be needed more frequently in the future.

Gabriella Treiber treiber.gabriella@biodin.hu

## Foundation of the Demeter Biodynamic association in Turkey

On Saturday, 15th of September, around 30 people gathered to found the Demeter Biodynamic Association in Turkey. Arzu Duran who has already translated the DI standards into Turkish and who runs a Demeter in conversion certified small farm, is the driver of this process. With the support of Hans Suppenkämper, Biodynamic adviser, active in several projects in Turkey, Arzu organized this meeting. Statutes had been prepared, coordinated with Demeter-International and adapted to the local conditions. All stakeholders had been invited and nearly all were present, despite it being in the middle of the harvest time. This showed the strong will of all new members of this Association to work together for the strengthening of the Biodynamic movement in Turkey. Five Board members and four additional founding members signed the new statutes that now have to registered.

The successful afternoon was followed by a festive evening with excellent food, intense conversations and communal dancing.



Christoph Simpfendörfer



## Nobody can resist the drought

### The connection with climate change or even a warming of the earth seems obvious.

In any case, the current drought is a pan-European problem, if we disregard, for example, the serious forest fires in California. My colleague Jean-Michel Florin and I are travelling around the world visiting Biodynamic farms, and of course we ask everywhere what the climate is like. Uneven weather conditions are increasing everywhere, be it too much rain or too little, or be it frequent storms. The drought fits to this picture. Three factors have now come together: For weeks there was no precipitation, with persistent temperatures of more than 30 degrees and drying winds as well. Only in this combination of drought, heat and wind does an extreme drought occur. I was recently in Tampere, Finland. The wind there, blowing constantly over the land, is just one of many examples. Are we talking just about the weather or are these already climate effects - it's always difficult to say. I have noticed, however, that since the 2013 season we have consistently had extreme years and the weather is not calming down. Think of the extreme frost in April 2017, which really made the farmers and gardeners struggle!

### Working with nature also means being able to deal with its adversities. Are Demeter farms less affected by the drought?

It affects everyone who works with the land, including Biodynamic gardeners and farmers. I haven't been able to gain a complete picture yet. In autumn, the world's representatives of Biodynamic agriculture will meet and we will learn more about it then. Biodynamic farming means that fodder is produced on the farm. This is at the heart of our understanding of natural agricultural systems. Now the drought is affecting pastoral farming i.e. fodder production in particular. This year at the end of February and beginning of March there was a very late cold spell. It was followed by a cool wet March, so that the animals could not be let onto the pastures until later than normal. This in turn meant they had to be fed hay for a longer time, eating into the winter reserves. Now everyone is expecting a shortage of feed, and that also means the stocking rates will have to be adapted. As a result, the slaughterhouses in Switzerland are running at peak capacity. A conventional industrial farmer buys his fodder in, he has few areas of his own to produce the feed and the shortages Europe wide will cause problems. However, in contrast we as biodynamic farms are broad-based. With a wide diversity - everything from cereals and vegetables to milk and cheese, we are less susceptible to extreme weather conditions. There are areas such as viticulture, for which such a drought is not bad at all. The vines can handle it pretty well. The grapes have a high sugar content. Also fruit looks quite good with some irrigation. Biodynamic agriculture is therefore both less and more affected.

### What do Biodynamic farmers do to protect themselves from such drought?

Working with nature also means being able to deal with its adversities. It is our goal to cultivate, develop and fertilise the soil and all crops in such a way that the natural resistance, the resilience, becomes greater. There are limits to that. We cannot work miracles; even if there are sometimes amazing reports, we can't beat the elements. This is why Demeter Switzerland, for example, has now relaxed the purchase of non-Demeter fodder to help farms and at the same time maintain the 'Demeter' seal of quality. The farms may now purchase up to 35 per cent of the basic feed from other organic farms without an exemption, and 10 per cent from conventionally operating farms in Germany with a specific exemption.

The interview with Ueli Hurter was conducted by Wolfgang Held Published under the title "Der Dürre kann niemand trotzen" in "Das Goetheanum" 2018/33-34



## Drought in the Netherlands, the summer of 2018

Despite a cold start the year quickly picked up pace in April and by August temperatures were 3°C above normal. End of May it seemed this weather was quite profitable as most farmers had their winter stocks filled up with fodder already. But then came June and July and the quality of the pastures went down due to severe lack of rain (120 mm less than average over May-July) and quite a few farmers had to start feeding their cattle from the winter reserves. The arable farmers were lucky if they could irrigate to keep their crops

BUT... even though the Biodynamic farmers also faced problems there was an indication that this was somewhat less than conventional farmers. As the pastures of the Biodynamic farms are a mixture of species they remained greener than the conventional rye grass monocultures. This was mainly due to species like clover and plantain that like the warmth and don't mind a bit of drought and they in turn could protect the soil from the worst of the severe sunshine. We also saw the pastures and crops remain greener under the trees as those plants didn't get the full blast of the sun's rays on them and Biodynamic farmers tend to have more trees on their land. Animals were clearly happy with whatever shade they could get and often grouped together under bushes and trees if available. Some arable farmers indicated that they had to irrigate a bit less than their conventional neighbours and that saved litres of diesel. It depended a lot on the type of crops though how they dealt with the weather. Conventional Lucerne also seemed to do better than other crops for example.

For the animals we have facilitated a fodder-exchange which has resulted in some new contacts between Biodynamic farmers and the sense that we face these problems together. So far Stichting Demeter has only have been a little more lenient in sticking to the standard of 80% Demeter quality fodder, reducing the requirement down to 70% (with the rest from organic quality). Let's hope autumn does bring some more rains.

Stichting Demeter, Susan van 't Riet



# Reports/ various

### Biodynamic viticulture conference in South Africa

Just as the five year drought began to break in South Africa the farm at Reyneke Wines in Stellenbosch held a 2 day Biodynamic wine conference in mid-June 2018 with guest lecturer Dr. Georg Meissner from the Free Wandering School. Rain lashed down like a dream after the 2017/ 2018 hottest & driest summer ever recorded. Vineyards being newly converted were challenged by the rain but the 12 year Biodynamic soil held strong, radiating its strength gained from the Biodynamic management. The color and texture of the soil now indicates that the sand has been transformed showing off its dark organic matter as the longed for rain sits comfortably in the soil. These old decomposing granite soils have great potential for generating quality wine.

As the drought took its toll in the Western Cape for its fifth year the future of farming practice was seriously threatened. Farmers, especially those conscious of sustainable practice, were challenged repeatedly to discover what environment is needed to maintain a healthy soil in drought conditions. And also how can they themselves maintain a healthy and positive attitude?

Dr Meissner skillfully brought our attention to contrast the qualitative difference between the 12 year Biodynamic soils at Reyneke Wines with the adjoining new vineyard in conversion to Biodynamics. Listening to the biography of the farmer, Johan Reyneke's journey and his practice, it became apparent at the conference that the work of integrating the principles and practices of Biodynamics offered drought resilience to the land.

This discovery was welcomed like the rain!

Helen van Zyl Coordinator and director for Biodynamic apprentice training helenvanzyl@me.com









### Heliopolis University opens first Faculty of Organic Agriculture in Egypt and calls for international students

Posted on August 18, 2018 by SEKEM

With the start of the new academic year, on the 23rd of September 2018, Heliopolis University for Sustainable Development (HU) will inaugurate its new Faculty of Organic Agriculture, which is the first of its kind in Egypt. As part of the university's holistic contribution to the sustainable development of the Egyptian society, the faculty aims to offer an integral approach of teaching, learning, research, and practice focusing on current ecological challenges such as food security, climate change, and biodiversity. The faculty is now open to both Egyptian and international students to join for the upcoming academic year 2018/2019.

"We see great potential for our new faculty as we believe that Organic agriculture will be the mainstream agricultural method in the future. This change can already be seen by the fast-growing organic food market in Egypt," says Prof. Dr. Mohamed Yousri Hashem, the president of HU and acting dean of the new faculty. "The number of farmers and qualified workers in the field of Organic agriculture is relatively small in Egypt, which means that this faculty directly serves the market needs and will offer excellent opportunities to our students to find meaningful employment as soon as they graduate, and even to become successful entrepreneurs in this emerging field in the future."

### International cooperation and exchange

The Faculty of Organic Agriculture provides academic degrees (B.Sc. in Organic Agriculture & B.Sc. in Food Processing Technology) which qualify graduates to work in the different fields of Organic Agriculture both nationally and internationally and to develop their entrepreneurial abilities to achieve new innovations in the field. Two academic programs will be in focus: Organic Crop Production and Food Processing Technology. Next to this, intercultural exchange will be one of the study's priorities. Students will spend at least one semester abroad and have one semester practical work, for example on the SEKEM Farms. Besides, they will gain important international insights by experienced guest lectures from SEKEM's worldwide network. Among the cooperation partners is the Agricultural Section of the Goetheanum in Switzerland that will especially foster the Biodynamic agricultural approaches.

#### Call for international students

From the very beginning, Heliopolis University and SEKEM wish to include students from different countries in order to foster the international approach right from the start. Hence, young people from all over the world who are interested in studying Organic Agriculture are welcome to apply and join the first semester (find the contact data below). They will be supported by SEKEM's international experience in hosting guests and can witness a new pioneering development within SEKEM and Egypt. All seminars will be held in English language.

Besides the exclusivity of being the first Faculty of Organic Agriculture in the country, the study program at Heliopolis University offers unique advantages including a close interaction between professors and students, tight connection to industry through SEKEM's network, as well as a comprehensive cultural and humanistic core program, which complements the academic course.

Heliopolis University for Sustainable Development was founded in 2012 under the umbrella of the SEKEM Initiative in order to empower students to become champions for sustainable development in different spheres of life. In cooperation with the SEKEM institutions, education combines teaching, research, and practice with a uniquely humanistic core program to develop curious and creative minds.

Apply here



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Source: https://www.sekem.com/en/heliopolis-university-opens-first-faculty-of-organic-agriculture-inegypt-and-calls-for-international-students/

### New study links common herbicides and antibiotic resistance

October 12, 2018, University of Canterbury

A new study finds that bacteria develop antibiotic resistance up to 100,000 times faster when exposed to the world's most widely used herbicides, Roundup (glyphosate) and Kamba (dicamba) and antibiotics compared to without the herbicide.

This study adds to a growing body of evidence that herbicides used on a mass industrial scale, but not intended to be antibiotics, can have profound effects on bacteria, with potentially negative implications for medicine's ability to treat infectious diseases caused by bacteria, says University of Canterbury scientist Professor Jack Heinemann, one of the study's authors.

"The combination of chemicals to which bacteria are exposed in the modern environment should be addressed alongside antibiotic use if we are to preserve antibiotics in the long-term," he says.

An important finding of the new study was that even in cases where the herbicides increase the toxicity of antibiotics they also significantly increased the rate of antibiotic resistance, which the study's authors say could be contributing to the greater use of antibiotics in both agriculture and medicine.

Previously these researchers found that exposure to the herbicide products Roundup, Kamba and 2,4-D or the active ingredients alone most often increased resistance, but sometimes increased susceptibility of potential human pathogens such as Salmonella enterica and Escherichia coli depending on the antibiotic.

"We are inclined to think that when a drug or other chemical makes antibiotics more potent, that should be a good thing. But it also makes the antibiotic more effective at promoting resistance when the antibiotic is at lower concentrations, as we more often find in the environment" Professor Heinemann says.

"Such combinations can be like trying to put out the raging fire of antibiotic resistance with gasoline."

More information: Brigitta Kurenbach et al. Agrichemicals and antibiotics in combination increase antibiotic resistance evolution, PeerJ (2018). DOI: 10.7717/peerj.5801

Journal reference: PeerJ

Provided by: University of Canterbury

Read more at: https://phys.org/news/2018-10-links-common-herbicides-antibiotic-resistance.html#jCp

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