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ecology AND farming

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Yours sincerely, Peter Grosch, General Manager and
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Extreme weather

This autumn we had the driest autumn months for more than 100 years, now we have the wettest winter ever. A few months ago transport over Dutch rivers and canals was almost impossible because of the low water levels, recently the water was just 20 cm below the top of the dike. Extreme weather! The climate is changing and so must agriculture.

The number of farmers in the European Union has decreased by 20% in just 8 years . In the same period the agricultural area has decreased by 2 %. This is a worldwide tendency: the number of farmers constantly goes down as does the area of cultivated land. To produce enough food, fibre and energy for a growing population, farmers have to produce (much) more. But FAO reported also recently that a quarter of the world's agricultural land is exhausted. Agriculture has to be more intensive, with higher productivity, yet at the same time it has to be sustainable.

In this edition of Ecology & Farming, we present some examples of how to produce better and in a more sustainable way in less than ideal circumstances. The use of bio-slurry from small scale energy production in Ethiopia leads to much better yields. Research in saline circumstances shows that we can produce good yields and quality food in conditions that were previously considered unsuitable for farming. Vanda Shiva has seen difficult circumstances for farming. She saw what happened to farming in the so-called Green Revolution. For her organic farming is the answer, it offers promise to desperate, sometimes suicidal farmers. The world needs better agricultural practices. Conrad Thimm is right in saying that this does not automatically mean: "certified organic". Certification is, at the end of the day, a rather cold tool, it needs creativity to turn it into good practice. Reports in this issue from China, Albania and Portugal all illustrate the strong development of organic agriculture and give us some grounds for being optimistic.

Although the main (export) markets for organic products are in or near to recession, the worldwide market is growing. Biofach will show what the mood is among traders, processor and retailers. Do we face bad weather in the main markets? The barriers for market access will be discussed in the Goma conference, one of many side events at Nuremberg. We will report on these and other developments in the next issue.

WIL J. VAN EIJSDEN

Wil van Eijsden died on January 28, 2012 in Romania at the age of 60. Wil was a colorful personality. He was one of the irst (non-biodynamic) organic farm advisers. He was a member of IFOAM's first technical committee that developed the IFOAM standards, which were the basis for the US-EU and other EU-regulations. Later, together with Boudewijn van Elzakker and Peter Brul he founded AgroEco, which has helped to start up and develop organic farming in dozens of countries . Wil was a walking library for his colleagues and always interested in the details of production methods. After his Agro Eco period, he moved in 1997 to Hungary and established one of the finest poultry farms I have ever seen. With a new love he moved then to the Romanian Transsylavanië, to begin mozarella production with water bufallo's, and a breeding programme to rescue the nearly extinct Romanian water buffalo. In his last years he worked as a mainly on ideas and projects to combat poverty in the beautiful Transylvania with organic farming. One of Wil's greatest qualities was to start new projects with lots of energy. He dies much too early as he still had many ideas and much energy.

Peter Brul

News

// ORGANIC COTTON HARVESTS WATER AS WELL

About 70 percent of the world's water supply is used for irrigating agricultural crops and about 53 percent of the 'global cotton field' is irrigated, producing 73 percent of the global cotton production.

It's hard to fully appreciate the significance of these figures, just as it may be hard for some of us to comprehend a life where water is scarce or not safe to drink. In this respect the concept of a water footprint is fascinating since it adds a different perspective to issues such as water scarcity, water dependency, sustainable water use and the implications of global trade for water management. While organic cotton is only one percent of the global supply, Textile Exchange estimates that at least 75-85 percent of it is produced under rainfed conditions. And whilst rainfed organic cotton has a significantly lower water footprint in the field than conventional and irrigated cotton, the hydrological benefits go way beyond simply not drawing water to the cotton field. Rainfed organic cotton requires farmers to use a range of biological products (biomass, farmyard manure, cover crops) and techniques (composting, mulching and crop rotation) to build soil organic matter (SOM) and ensure its water-holding capacity. When the soils under organic crops are high in SOM they perform much better than conventional soils in holding water, therefore they are usually better at withstanding drought or flooding, leading to better performance in the context of climate variability and change. Organic agriculture is a safeguard against water pollution (since there are no toxic and persistent pesticides or synthetic fertilisers entering the water way) but it also contributes to a safer supply of food. Integrated watershed management can be a more sustainable approach to improving water supply for agri-

// A BEE STING TO GMO AGRICULTURE

Honey contaminated with pollen from GMO maize is no longer allowed in the European market. The European Court of Justice, decided in September 2011 that honey with "GMO traces" from GMO plants, should be labelled as a GMO product.

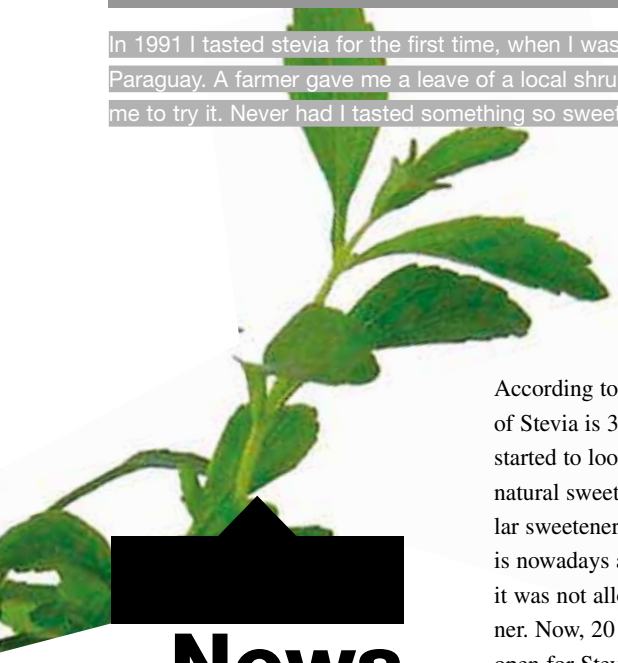
The importance of this is, that co-existence of GMO and non-GMO agriculture, preached by the GMO lobby, has been declared to be impossible. Unintentionally GMO plants contaminate non-GMO agriculture and food.
Maaike Raaijmakers project leader for GMO free agriculture at Bionext says: "Co-existence rules so far don't take the range of bees into account. This judgment shows they should. Otherwise there will be no GMO free honey in the future."
Recently, in January 2012, the agricultural giant BasF decided to stop its transgenic plant operations on the potato Amflora in Europe. The declaration of the European Court on honey is an important motive to them, says ADG news. Only one other GMO crop, Mon810 developed by Monsanto, is approved for cultivation in Europe. Bee keepers and traders have economic interests. To sell their honey as a quality product, they have to guarantee it is GMO free. Just sieving the pollen out, would be a simple technical solution. But EU legislation does not allow this. Spain and Rumania are important honey producing countries, but also allow the produce MON810. What will happen in the international market? Argentina, the world's second largest honey exporter, is in a good position because it only allows 3 GMO crops to grow, whereas China, the largest honey exporter, produces honey from many GMO plants that are not approved in Europe.
This bee sting will affect GMO agriculture and bring about changes the international honey market.

Sonja Copijn
www.beebuzziness.nl

News

// TOWARDS A SWEETER EUROPE?

In 1991 I tasted stevia for the first time, when I was working in Paraguay. A farmer gave me a leave of a local shrub and told me to try it. Never had I tasted something so sweet!



According to the literature, the active ingredient of Stevia is 300 times sweeter than sugar. We started to look at the possibilities of using it as a natural sweetener. Sugar was, and is, not a popular sweetener in the organic industry, although it is nowadays available in organic form. However, it was not allowed then to use Stevia as a sweetener. Now, 20 years later, the European market is open for Stevia.

Since December 2011, 'steviol glycosides' (the active ingredient of Stevia rebaudiana Bertoni) have been approved as a food additive within the EU. In the official language of EU regulation EC1131/2011:

"While considering the need for new products which are energy-reduced to be placed on the market, the use of steviol glycosides as sweetener should be authorised at appropriate maximum use levels. Taking into account the potential significant contribution of soft drinks to the intake of steviol glycosides, a reduction in the use level for flavoured drinks, compared to the previously proposed use levels considered by the Authority, should be established. The European Food Safety Authority (hereinafter referred to as 'the Authority') evaluated the safety of steviol glycosides, extracted from the leaves of the Stevia rebaudiana Bertoni plant, as sweetener and expressed its opinion on 10 March 2010. The Authority established an Acceptable Daily Intake (ADI) for steviol glycosides, expressed as steviol equivalents, of 4 mg/kg bodyweight/day. Conservative estimates of steviol glycosides exposure, both in adults and in children, suggest that it is likely that the ADI would be exceeded at the maximum proposed use levels."

// ORGANIC MARKETING FORUM 2012

7th International Meeting on Processing and Marketing for Organic Products and Raw Materials on 7th - 9th of May 2012 in Warsaw – Registration starts now

Organic Marketing Forum

With the subject - With Transparency and Credibility to new Customers - farmers, processors, traders and experts from around 30 countries will meet between the 7th and 9th May 2012 in the Polish capital.

A high priority of this international expert conference is finding new strategies, setting up new markets and making new business contacts. With more than 500 participants expected, and with a tradition of 7 years, the Organic Marketing Forum is the most important international meeting for the organic sector in Central and Eastern Europe.

The international conference and the accompanying exhibition will give participants the chance: get to know new customers and sales partners for products especially in eastern Europe, including the upcoming market in Russia, to obtain detailed knowledge and updated information about organic markets, extend their network and find new business opportunities.

The German based NGO Eko Connect- the International Centre for Organic Agriculture in Middle and East Europe - is the organizer of the Organic Marketing Forum. The event, which includes field trips to organic producers, as well as a business partner market, will be held in the English, German, Polish and Russian languages. No other event enables such an purposeful development of business contacts between East and West Europe for organic businesses. The Forum will be held under the patronage of the IFOAM EU Group and the Polish Ministry for Agriculture and Rural Development. The partners of the Organic Marketing Forum

The European Stevia Association is working on a correct measurement of steviol glycosides. A symposium will be organized in Leuven, Belgium on June 28-29, 2012. (www.eustas.org)
In the USA Stevia was accepted years ago and (according to Mintel) the market for it exceeded US$ 100 million in 2009, up from U$ 21 million in 2008. The world market for Stevia was US$ 285 million in 2009. Mintel predicted that the Stevia market could exceed US$ 2 billion by the end of 2011. "The FDA's approval of Stevia in food and drink opened the door for this market's explosion," stated David Browne, senior analyst. "New product activity has accelerated in recent years, and since most categories with Stevia applications remain untapped, we expect many more Stevia-infused product introductions in the next few years."
Now that the European market has also opened for this natural, calorie free, sweetener this will give a real push to the production and the use in a wide range of organic products.

Peter Brul

// ORGANIC RAILWAY RESTAURANT

Three years ago an organic restaurant, Natural Café La Porte. opened its doors in the busy railway station of Driebergen-Zeist in the Netherlands. The railway station is opposite the anthroposophical centre, which initiated the idea. The restaurant mainly serves products from regional organic producers. The building was renovated so as to minimize energy use. People enter the restaurant through a revolving door which, when pushed, produces the energy needed to make your cup of coffee! Prior to the renovation the restaurant had stood empty for several years. Following the re-opening, the security situation and ambience in and around the station improved dramatically, with the number of incidents reported to the police decreasing by more than 90 %.

In December 2011 a similar initiative opened its doors in a German railway station. The station in Uelzen (in the North of Germany, near Bremen and Hamburg) was built in 1888, and was later reshaped by the famous Austrian 'organic architect' Friedreich Hundertwasser. It provides a fantastic setting for a railway restaurant, well worth a visit if you are in the area Both places provide a venue where travellers can meet their friends or business partners, drink organic coffee or have a good lunch or dinner made with local organic food. The concept might be useful for railway stations elsewhere. For more information on the two restaurants visit www.hundertwasser-bahnhof.de and www.natuurcafelaporte.nl

// ORGANIC CHICKEN MEAT

Ninety-nine percent of Dutch conventional chicken meat is infected with antibiotic-resistant ESBL bacteria. There is no reason to expect that this will be different in other countries with large scale intensive poultry farming. The infection rate among organic poultry is much lower. Meat of broiler breeds that grow much slower, as used in organic poultry, just has 12 to 20% of the number of bacteria than the meat from conventional farms. Antibiotics that are used in conventional poultry farming, are not effective anymore, because the bacteria are resistant nowadays. The ESBL bacteria are not dangerous for healthy people, but there is a chance that ESBL obstructs the effect of antibiotics. As such it is one of the biggest threats to human health.

BY PETER BRUL

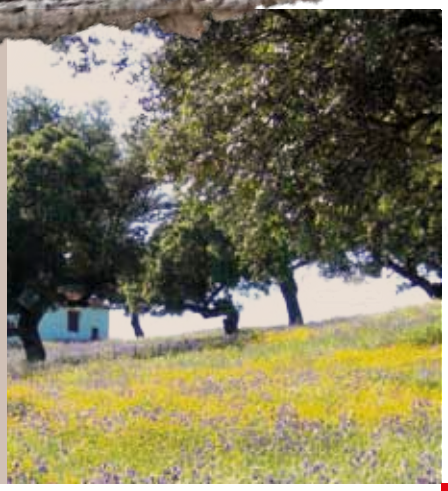
Young people from the cities are looking for a future in organic farming

Portugal

A NEW SPIRIT IN ORGANIC FARMING

ECONOMIC ACTIVITIES THAT MAINTAIN THE ECOLOGICAL INTEGRITY OF THE LANDSCAPE

MUSHROOMS GROWING UNDER THE OAK TREES



Portugal, in the south-west of Europe, is a relatively small country, with an area of 92,000 km^2 and a population of 10.5 million. Mainland Portugal is split by its main river, the Tagus that flows from Spain to the Atlantic, near the capital, Lisbon. The northern landscape is mountainous towards the interior with several plateaus indented by river valleys, whereas the south, which includes the Algarve and the Alentejo regions, is characterized by rolling plains.

THE LOCAL BRANDY, AGUARDENTE DE MEDRONHO

After Portugal joined the EU in 1986 it went through a period of transition. It had been a quite closed country some time. One of the effects was a "protected" agriculture, underdeveloped and lacking in innovation. Because the use of agricultural inputs was low, I was asked to look at the possibility of converting rice farming in the early nineties. But, at that time the price of conventional Portuguese rice was higher than that of organic rice on the European market.

During the past 25 years Europe's agriculture has changed a lot. More than 450,000 farmers have stopped farming, and 180,000 hectares have been afforested or left uncultivated. In general, only the larger units have survived. As in so many other countries, the victims were mainly small farmers, who were not eligible for financial support and could not compete with those who are in a position

IN SOME REGIONS, LIKE THE ALENTEJO, THERE ARE PROGRAMMES TO ENCOURAGE YOUNG FARMERS TO START UP IN BUSINESS

to regularly supply large quantities. Portugal is one of the world's largest producers of wine and cork. The main classifications of land use are arable land and permanent crops (2 million ha), permanent crops (0.7 million ha), permanent pasture (530.000), forest and woodland (3.6 million) and other land (2.3 million).
Twenty five years ago, there was hardly any organic farming in Portugal. In 1993 there were still only 73 organic producers. This figure rapidly grew to more than 1,500 in 2005 and more than 2,000 in 2011, with more than 200,000 hectares. Marketing is still a limiting factor for further conversion, either because domestic demand is still quite low, the distribution network is weak, or there is not enough information about export markets. The most important processed items are olive oil and wine. Both can be found in the big supermarkets and are also exported. The producers are generally small-scale, but some larger entities have been getting involved. Twelve percent of interviewed farmers produced an average of more than 20,000 hectolitres of wine per year. Some farms produce five times more, mainly for export. The Portugese organic wine sector has developed in recent years with one product, Herdade dos Lagos from Mertola, winning a gold medal at Biofach 2011

Agrobio is one of the pioneering organic organizations in Portugal and has offered training for many years and continues to organize courses for advisors and farmers. It also organizes conferences, at least once a year, involving Portuguese and foreign experts. It publishes a bulletin for farmers (Infobio) and a magazine (A Joaninha, "the Ladybug"). The Agriculture University offers some courses on organic farming. There are always many applicants for these courses, which are obligatory for those wishing to become organic farmers.

Young people are looking for new alternatives. For several years Portugal has been suffering a heavy economic recession. This has created high unemployment and reduced the opportunities for young people to get a decent, well paid, more or less secure, or interesting jobs. Some young people in the big cities, such as Lisbon and Porto, are becoming interested in (organic) farming. Some of their families still have land in the countryside, that is hardly used or has an extensive, almost no-input 'management' in olives, cork or eucalyptus trees.

In some regions, like the Alentejo, there are programmes to encourage young farmers to start up in business. One joint EU-Portuguese programme is being managed by ADPM, a rural development organization, based in Mertola in the Alentejo. The typical landscape of the Alentejo is called the *montado*. It is dominated by parkland-like woodlands, with strawberry trees, cork oak and several local species of oaks, rarely found elsewhere, together with a great diversity of herbs and shrubs. This landscape is grazed by local breeds of cows and black pigs scurry under the trees, feeding on the acorns. This is the world's main cork producing region and the unique landscape is under pressure, because the cork is harvested just once every 15 years and this does not provide enough income. Some farms are abandoned. Alternatives, such as large scale olive tree or eucalyptus plantations, or cereal production, pose a big threat to the regional biodiversity.

The goal of ADPM is to stimulate economic activities that maintain the ecological integrity of the landscape. They have a strong focus on organic farming, and promoting the economically viable and ecologically sound use of the area's natural parks. They promote activities such as harvesting cork and the fruits of the strawberry tree, collecting herbs and mushrooms and eco-tourism, activities that they believe are better suited to maintaining the character of the region.
In one of the projects, around 25 young farmers have been trained in herb production, with plans to train further groups. This group is now producing a range of mainly Mediterranean herbs, as well as some typical local varieties, which you can only find there. One example is green lavender, an endemic plant with a good potential of being developed as a drug ingredient with antifungal properties. Studies are under way to explore the diversity of herbs in this unique territory and how they might be commercially exploited. One important crop in the ecology of the maintenance of the landscape is cistus labdanifer, which is used to produce *labdanum*, an alternative for ambergris in natural cosmetics. The herb growers work together and learn from each other. All of them have drying facilities, and three producers have equipment for distilling essential oils. So the herbs are processed on the farm, immediately after the harvest to achieve the best quality.
The strawberry tree is an important element in this unique landscape. In combination with the oak trees it helps

HERB PRODUCTION AND PROCESSING

THE MONTADO OFFERS A GREAT DIVERSITY OF HERBS, RICH IN ESSENTIAL OILS

provide a perfect environment for a wide range of species like rhododendron, wax myrtle, gum cistus, medicinal herbs and edible mushrooms, and many rare animal species. The fruit of the tree is harvested in October and November and is traditionally used to produce a brandy, called Aquardente de Medronho. There is a certified organic medronho made from fruits collected by local farmers. Harvesting is done by hand and processing is on a small scale, without using any additives, in order to achieve a perfect flavour. The Portuguese producers from the ADPM programme and Agrobio members from other regions in Portugal will be running two joint booths at Biofach this year where they will be showing their wine, olive oil, mushrooms, honey and herbs, and serving tasters of Aquardente de Medronho. ■

One joint EU-Portuguese programme is PROVERE, focused on the rural development of Portugal. Various public and private actors of Alentejo are participating in a Regional Collective Efficiency Strategy led by the Municipality of Almodôvar and coordinated by ADPM for the sustainable exploitation of wild resources.

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Ethiopia is a mountainous country in the Horn of Africa with over 45% of the land above 1500 m asl. This is where the majority of the population, particularly its smallholder farmers, live. These farmers practice mixed farming with their livestock providing draught power, dung for improving soil fertility and to supplement fuel wood, and as an economic cash reserve. The meat and milk produced are mainly supplied to the urban population.

BY SUE EDWARDS, FENTAW EJIGU & HAILU ARAYA

Yields increased by more than 60% after applying bioslurry compost to the fields

Bioslurry as an organic input for improved agricultural production

Table 1
Grain and straw yield of wheat in Adi Gudum, Hintalo Wejerat
2010

Treatment	Farmer's name	Average grain g/ plot	Average straw g/ plot	Grain average kg/ha	Straw average kg/ha	Grain increase over control
Bioslurry compost	Abreha Moges	318	451	2800	3961	164%
	Berhanu G/Selassie	277	425			
	Belay Mores	245	312			
Check	Senay Teklu	203	392	1711	3072	
	Selemawit G/ Mariam	193	328			
	Embaye Desta	117	202			

Yet these smallholders face serious environmental problems, including land degradation driven by soil loss and nutrient depletion, deforestation, poorly managed grazing and the impacts of climatic change. Indoor air pollution from cooking with smoking biomass on open, inefficient fires and water pollution from poor or non-existent sanitation both severely undermine the health and productive capacity of the farming households, particularly women and children.

The National Biogas Programme for Ethiopia (NBPE) is a multi-stakeholder project developed by the Ethiopian Government and SNV (The Netherlands Development Organisation), with the support of HIVOS. The Coordination Office is based in the Ministry of Water and Energy. Its current target is to assist 14,000 of Ethiopia's smallholder farming families to install and manage biogas digester plants that will provide them with an alternative, renewable, clean and safe form of energy (methane in the form of biogas) for cooking and lighting, as well as a readily available source of organic fertilizer (bioslurry) to improve soil structure, fertility and crop yields. Households are also encouraged to attach a toilet to the biogas digester to improve sanitation.

The NBPE is working in the four main crop growing regions of the country: Amhara, Oromiya, Southern Nations, Nationalities and Peoples (SNNP), and Tigray Regional States. The first biogas digester plants were built in 2009. By the end of August 2011, 1634 biogas digesters had been installed and were operational.

In the latter part of 2009, the Institute for Sustainable Development (ISD) was invited to become a partner in the NBPE with a special responsibility for contributing to the effective and efficient use of bioslurry. This invitation was based on ISD's experience in developing and promoting the use of compost among smallholder farmers in Ethiopia, and its understanding of ecological organic agriculture.

Impacts of use of bioslurry compost on crop yields

In Ethiopia, the average farm household has a cultivated area of just 0.96 ha and the average yield of cereals is below 2000 kg/ha. Food security is an over-riding concern for nearly 40% of smallholder farming families. There is very little use of chemical fertilizers. Thus, good quality organic fertilizers are a good way for farmers to increase their productivity.

ISD has developed a system to record crop yields from farmers' fields. When the crop is mature, the farmer and his/her development agent harvest three one-metre squares from a field. The crop is threshed, the grain and straw weighed and then returned to the farmer with the development agent recording the yield data, the farmer's name, the crop and the inputs used. The straw is important because this is the main source of animal feed during the long dry season. Samples of the same crop are taken from good, average and poorer fields. The inputs used are bioslurry compost, no input (control) and chemical fertilizer (mostly urea) - if the farmer so chooses.

The 2010 cropping season provided the first opportunity to find out if the use of bioslurry compost could improve crop yields, of both grain and straw.

Yield Data from Tigray

The NBPE pilot survey in 2010 covered two villages each in the woredas (dis-

Table 2
Grain and straw yield of barley in Adi Gudum, Hintalo Wejerat
2010

Treatment	Farmer's name	Average grain g/ plot	Average straw g/ plot	Grain average kg/ha	Straw average kg/ ha	Grain increase over control
Compost	Gidey Tekaye	293	485	2628	4056	172%
	Hindeya Muez	268	398			
	Felege Tsegaye	227	333			
Check	Kinfe Nuriyu	180	307	1528	2417	
	K/Mariam Haile	163	255			
	Dagnew Melew	115	163			

tricts) of Hintalo Wejerat, (Adi Gudum and Waza), and Ofla (Hashenge and Mankere). The data were taken from fields where either wheat or barley, the dominant crops in these villages, were grown. The climate in Hintalo Wejerat is semi-arid and the soils are thin and stony. Rainfall in the Ofla area is higher, the soils are deeper, and farmers have become used to using some chemical fertilizer.

Tables 1 and 2 give the average yields for grain and straw for wheat and barley from Adi Gudum in 2010.
The effect of applying bioslurry compost to the fields was significant: average wheat grain yields increased by 64% and those for barley increased by 72% over the control. Even the farmers with poorer fields benefitted from the use of bioslurry compost. For wheat the average yield for a poor field more than doubled from 1170 to 2450 kg/ha, while for barley it increased from 1150 to 2270 kg/ha.

In the village of Waza (Ofla), farmers growing barley also used chemical fertilizer in their treatments, see Figure 1.
The graph shows that the application of both bioslurry compost and chemical fertilizer almost doubled the yield of grain compared to the control. However, the impact on straw yield was less, indicating that improving the supply of nutrients to the crop resulted in a higher increase in the production of grain, i.e. an increase in the grain index.

In Ofla, the bioslurry development agents focused on collecting crop yield data from farmers growing wheat. In Mankere, six farmers who had used all three treatments (compost, chemical fertilizer and the control) cooperated with the development agent who took data from a total of 54 1m^2 plots. The average grain yields were 4500 kg/ha from the use of bioslurry compost, 4600 kg/ha from chemical fertilizer and 3600 kg/ha where no inputs were used. In Hashengi, farmers were using an improved wheat variety, HAR 1685. The average grain yields were 4600 kg/ha from both the control and the use of bioslurry compost, and 5300 kg/ha from the use of chemical fertilizer.

These data show that bioslurry compost and chemical fertilizer both increase yields, and significantly so in Hintalo Wejerat. Chemical fertilizer only gave a higher yield where the farmers were using an improved variety of wheat.

Government Policy
In September 2010, the government launched is five-year Growth and Transformation Plan (GTP). This views agriculture as the major source of economic growth and gives a particular focus to empowering women and youth and improving their prospects. The making and use of organic fertilizers, particularly compost, has been included as part of the agricultural extension package. The importance of compost in sequestering carbon in the soil is recognized as one way of mitigating against and adapting to the challenge of climate change.
This gives the NBPE the opportunity to contribute significantly to the targets set in Ethiopia for the use of compost and improved food security by 2015. ■

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Organic farming started in the 1920s, when the world population was just 2 billion people. Some farmers were deeply concerned about the direction of developments in farming and started to think of new methods.

BY PETER BRUL

alty

salt resistant varieties

ing in salty conditions

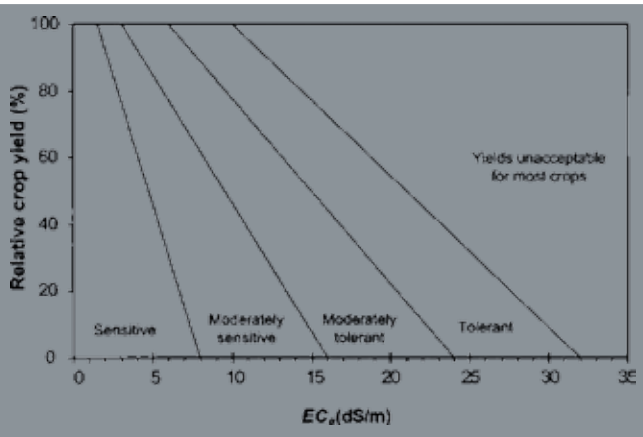
Nowadays we have a world population of 7 billion who have to be fed daily (by agriculture). This will probably peak later this century at more than 9 billion people, something like 40 times what would be the natural maximum for an omnivore like man. There is even more reason to be concerned about developments in agriculture today than there was ninety years ago when organic (biodynamic) farming first emerged. The challenges we face now are immense. In the last 90 years the earth has lost a large part of its agricultural biodiversity and the pressure on natural biodiversity hotspots has increased tremendously. Agriculture has developed very rapidly, and is able to feed many people, but there are almost one billion people who do not get enough to eat and suffer seriously because of this.

More farmland salinated

Climate change causes a rise in the sea level. More and more farmland is (and will be) salinated by this, by subsidence in coastal regions and due to irrigation in (semi) arid regions. Australia might see a quarter of its present farmland become unsuitable for farming, at least for existing crops. The UN estimates that the world loses at least three hectares of arable land every minute because of soil salinity. Often it is the irrigation techniques that are slowly killing the soil. According to FAO, nearly 20% of the 230 million hectares of irrigated land in the world, which produces about a third of the world's food, is salt-affected. There are several possible responses; finding better ways of irrigation, developing methods to that use far less (or no) irrigation and working with more salt resistant crops.

The Netherlands is situated in the delta of the Rhine. More than 50 % of the country is below sea level. Parts of the country are slowly sinking, because of nature and human activities. At the same time, the

THE WORLD LOSES AT LEAST THREE HECTARES OF ARABLE LAND EVERY MINUTE BECAUSE OF SOIL SALINITY



sea level is rising, as a result of climate change. The polders are experiencing more and more subsidence. According to the current forecasts, approximately 125,000 hectares of agricultural land will be seriously salinated in 2020. The country has a total agricultural area of 2 million hectares, with an average price (in 2011) of 50,000 Euro per hectare. Production levels are high. Although the Netherlands is one of the smallest and most crowded countries in the world, it is also the second biggest agricultural exporter (more than 70 billion Euro in 2011) after the USA. Agriculture is highly productive and very innovative. Dutch scientists have long advocated the development of saline agriculture: "basically you can grow beet on all types of salty soil." The challenge is to find ways of using brackish water in agriculture and to find solutions for the salizination. Salt tolerant crops might have a potential for food, oil and energy production.

Marc van Rijsselberghe farmed many years on the Sint Donatus biodynamic farm that his mother established in the 1970s on the Dutch island of Texel. For a few years he has been working on the organic production of typical salt tolerant crops on some fields of the farm. Together with some scientists he set up a research and demonstration farm for crops in brackish conditions. Production is both for food and for a range of wellness products.

He started with a range of wild crops that grow along the coast and tried to see they could be grown commercially and used for food or other purposes. Now he delivers a range of products, especially a kind of 'sea cabbage' and samphire to health food shops and restaurants. His research has looked at cellery, different types of beets (the European beach beet is the 'mother' of all beets, including sugar beet, fodder beet and red beet). These are all rather salt tolerant plants. Barley is much more salt tolerant than wheat. Rapeseed also does quite well under brackish conditions. Tomato growers know that the tomatoes have a better taste when the water is a little bit salty. Dutch potato breeders are searching for salt tolerant potato varieties anticipating that such varieties will be resistant to the effects of climate change. "It may take seven to ten years before the Dutch salty potato will be in the supermarkets, but that there is no doubt that it will come. Already growers are finding that different varieties have different tolerance levels. The results of recent trials have already convinced a grower to replant potatoes on land that had become unsuitable for growing them.

Salinity as an opportunity

On the research station on the island of Texel, different crops and new varieties are being tested under different brackish conditions. The main lesson is that the threat of salinization can be converted into an opportunity. "So far none of the agricultural sectors in our land looked seriously at the positive side of seawater, the idea that salt water is just bad for crops is counterproductive ", says a partner of Van Rijsselberghe on the research and demonstration farm. "The salt meadows between the dikes and the sea are full of a great diversity of plants. We have done tests with celeriac. That remained somewhat smaller than normal but did not die, and the taste was significantly better than the commercial crop". (Most salt tolerant varieties have a saltier taste and this might be an attractive attribute for consumers). Salt tolerance has never been a selection criteria for breeders. They recognize that cultivars of crops with a coastal ancestor are likely to have an above average salt tolerance. These include beet and cabbage cultivars and some grain crops, all crops that are likely to have a potential for salt tolerance and need to be screened. Some of these traditional crops have a (potential) salt tolerance that might allow them to be cultivated at up to 20% seawater salinity. ■

If you want to know more, or are dealing with brackish or saline conditions and are interested in collaboration, visit the website www.ziltproefbedrijf.nl

Resource efficiency and food security

BY ANTJE KOELLING
& RISHI KUKREJA

Opportunities and challenges for sustainable food systems

This conference, organized in November by the IFOAM EU Group, in cooperation with the Committee of Regions, TP Organics and MEP Martin Häusling, delivered an important and timely contribution to the growing discussion on resource efficiency. It followed shortly after the publication of the Commission's 'Roadmap for a resource-efficient Europe', a document that proposes measuring all the EU's environmental endeavours against parameters of resource efficiency. To secure a sufficient food supply for the future, food systems need to become more sustainable, reduce the use of external inputs and improve nutrient recycling. Organic farming is already many steps along this path, as this conference showed.

Martin Häusling, coordinator of the Greens/EFA Group for agriculture, opened the conference with a wake-up call about Europe's growing foreign protein dependence, stating that "large-scale overseas protein production for rearing livestock in the EU is a formula which just does not add up, environmentally, socially or economically ... we must rediscover our own legumes." This view was supported by Walter Pengue from the Universidad Nacional de General Sarmiento (Buenos Aires), whose presentation showed the scale and effects of GMO-soy cultivation in Argentina, which has had devastating effects on soil fertility and led to a 200-fold increase in the use of Glyphosate. Vesna Valant, from the Cabinet of Janez Potocnik, the Environment Commissioner, set out the Commission's resource-efficiency plans for agriculture, highlighting that Europe wastes 90 million tonnes of food each year. Reducing this figure will require huge efforts throughout the food chain. She also warned of the impending phosphorus deficit, which can only be avoided by recycling and efficient use. Carlo Leifert from the University of Newcastle followed up on this theme, pointing out the current level of conventional production will quickly fall if just one nutrient runs out. Supplies of NPK are all at risk, due to finite supplies or the energy cost of production, with some estimates predicting a supply crisis within 30 to 40 years. Organic farming has led the way in efficient resource use, recycling more nutrients and reducing losses and environmental pollution. Considerable yield gains in organics can be made when using more locally-adapted varieties.

The second session was opened by Erik Mathijs from the Catholic University of Leuven and author of the 3rd SCAR Foresight Exercise. He claimed that the policy debate, even around the resource efficiency initiative, was still dominated by a productivity narrative which emphasizes producing "more with less". He proposed an alternative "sufficiency narrative", with the underlying slogan of "less is more", and a focus on internalizing the external costs of agricultural production. Mark Sutton from the Centre for Ecology and Hydrology in Edinburgh and lead author of the European Nitrogen Assessment outlined the dramatic costs of nitrogen pollution, estimated at €70–€320 billion per year in the EU-27. Next to technical improvements in manure application, he highlighted the need to reduce luxury food consumption.

Szilvia Nemeth from DG Research and Innovation (European Commission), presented the EU's initiative for a knowledge-based bio-economy and its potential to reduce carbon emissions and increase the sustainability of food systems. She emphasized the essential role of technological and social innovation in reducing food waste and the need to create new links among different stakeholders in the food chain.
Susanne Padel, TP Organics member and principal researcher at the Organic Research Centre (Newbury, England) closed the day, arguing that "thinking out of the box" is the most important driver of innovation. She outlined that organic agriculture is an innovative sector that has already introduced many progressive approaches, particularly in the management of land and livestock and in consumer-producer relationships. She emphasized the importance of participatory research in capturing and utilizing farmers' knowledge. ■

All the presentations are now available on the EU IFOAM group's website (http://www.ifoam-eu.org/events/ResourceEfficiencyFoodProd.Nov.2011/PHPs/Programme.php

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Bernward Geier interviews:

Vandana Shiva on Rio+20, IFOAM BioFach & more....

BY BERNWARD GEIER

Vandana Shiva talks about her hopes for Rio+20 and organic agriculture in India and the wider world.

In the light of the forthcoming Rio +20 summit people are increasingly saying "It's hopeless - we've had enough talking". Do you have hope for any substantial outcome?

The Rio Summit 20 years ago was driven significantly by movements, which were able to influence and shape major international treaties like the Biodiversity Convention. I hope that at Rio+20 movements will again be able to articulate the challenges of our times and the responses we need to make. It is doubtful whether the UN system and the governmental level will be able to respond the way they did 20 years ago. But we have to try and we have to give the "public sector" a chance

Considering that many movement and NGOs are trying to get their points across, what should be the key message from the organic movement?

I think the message that the organic movement needs to bring across at Rio +20 is that organic farming provides answers to all the ecological challenges facing us: the whole set of crises. It is the answer to the water crisis because organic soils don't need the level of irrigation that chemical ones do. It's also a key answer to climate change. 40% of all greenhouse gas emissions come from unsustainable farming systems. It is an answer to biodiversity extinction and it is a solution to the poverty and food crises. Both the Green Revolution, and now GMOs, basically suck resources out of poor farmers and leave many hungry (as we see dramatically in India). Organic farming gets farmers away from dependencies on chemical companies, seed patent fees and banks and is more profitable. No matter which way you look at it, organic farming is the answer and since the IAASTD report ('The World Agriculture Report') no government has an excuse to ignore it any more.

In the context of food security what are the concrete actions we need now? We have the World Agriculture Report, but what action is needed to get where we need to go?

With regard to food security the first thing we need to do is get rid of the major distortions 'that make the system unsustainable'. The first distortion is subsidies.

THE CENTRAL QUESTION IS WHO WILL PRODUCE OUR FOOD IN THE FUTURE?

The second is high external inputs, paid for by both the taxpayer and the environment. The third distortion is exploitative pricing which leads to cheap prices that don't reflect the real costs of production. And, on the poverty side, we need to assure fair prices for farmers and bring back decentralized (meaning local and regional) food and farming systems.

You have recently written the book "Earth democracy". We now have the Occupy Movement. Is this earth democracy at its best?

It is indeed a living democracy movement with new themes that have started to sprout. In terms of its political principles it is definitely earth democracy in practice. I think the next step it needs to take is to promote fair "living economies", for which the Occupy Movement can become the change maker.

The Occupy Movement is very much driven by young people. In IFOAM there is also an emerging "Young Organics" movement. You recently met some of these young activists in Bonn. How do you see the role of the youth in the organic movement?

If we look at any aspect of sustainability it's about maintaining the continuity of the earth's capacity to provide, and of human society to supply human needs. It all is also very much about the rights of future generations, which means the youth of today. The youth actually has to become the leaders for the transition we need to make to real sustainable societies. And the people in "Young Organics" are well qualified and positioned to take a leadership role.

In light of the triple crisis we face (climate, peak oil and food security) what could be the contribution of agriculture?

Well, the solutions for all the crises, which are obviously very connected and interrelated, will not come from Wall Street or the headquarters of the multinational corporations. The solutions will come from the land. Agriculture is showing us an economic model of the way into the future, but only when it is practised ecologically and sustainably. I foresee that more people will work in agriculture and food production – even in the rich countries of the North! We need to return to an economy which is related to the real world, using real energy, the real talents of people and meeting their real needs. We need to develop new cooperative models of mutual support and solidarity. If we don't soon come up with concrete and definite solutions, we will see unrivalled conflicts.

In other words, it is not bankers and business managers, but farmers that hold the solutions in their hands?

Many people believe that farmers are not very educated, if not stupid. It is my mission and work to ensure that farmers, be they men or women, are not only respected but appreciated for what they do. If we don't give utmost recognition to their work, soon nobody will want to engage in farming. We are aware of the worldwide

IT IS MY MISSION TO ENSURE THAT FARMERS, BE THEY MEN OR WOMEN, ARE RESPECTED AND APPRECIATED FOR WHAT THEY DO

trends of people migrating to the big megapolises and young people who do not want to stay on the land and work it. That leads to the central question: who will produce our food in the future? Monoculture and industrial agriculture is wasting food. We waste up to 90% of nutrients and calories by feeding soya and cereals to animals. Grazing animals don't compete with human beings for food, while they provide us with food, energy and manure.
There is no sustainable agriculture without the combination of arable farming, animals and trees. We have divided and isolated the system. We have moved to monocultures on the fields and massive cages of animals in industrial type factories. In organic agriculture animals, soil and human beings are symbiotic and create synergies.

You coordinated and published the latest and uniquely comprehensive analysis and study of the negative impact of GMOs under the title "The emperor has new clothes". What's new in this?
What's new is that for the first time all the studies, experiences and sound scientific evidence showing the countless negative and destructive impacts of genetic engineering have been collected, compiled and published in one study. Some 30 organizations from around the world, from Uruguay to Russia and Australia have contributed. The study is well referenced and comes to the clear conclusion that GMOs make no contribution to food security: that they do not, as their proponents claim, "feed the world". Yet they have a devastating impact on the environment, the economy and the social fabric of our societies and reduce our choices. We have to stop the further spread of GMOs and begin a step by step move towards a GMO free world.

India is the country of the year at Bio-Fach. In a nutshell how do you see the development of organic agriculture in India?
The official and governmental institutions are playing an important and sincere role in promoting organic agriculture. Their problem is they aim and need to be mainstream. Actually their aim should be based on IFOAM's four principles of organic agriculture and organic farming should be coordinated by our Agricultural Ministry and not by the Ministry for Exports.

What is your view on the position that India should produce organic food for Indians and not for export. Where are market opportunities here?
First we do produce organic food for ourselves. This is what we practice in our Navdanya movement. Most of India's hungry people live in rural communities and most of the malnourished children live in rural areas too. The first priority must be to get them fed and they ought to be fed well, that is to say organically. I don't see that organic production faces a conflict between market opportunity and food security. There are great market opportunities because it is a business with good profits, which is why giant chains like Walmart become involved. But these chains do not foster the creation of an organic movement from the bottom up to meet the needs of the "poorer" Indian people.

Where do you see the role of IFOAM today? Should there be changes or new priorities in the future?
I see IFOAM as our global body playing a leading role in reshaping the direction of agriculture and giving confidence to regional initiatives and assisting local farmers to work together more. I see a future role of IFOAM in combining the principles of sustainability that organic agriculture carries with the principles of an honest food system. We need to respond to the false promises of GMO food, manipulated and unfair prices and the centralised control of food production and distribution and ensure that the solutions we believe in get heard. IFOAM can play a central role in this. ■

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CERTIFIED ORGANIC HERB PRODUCTION FOR NATURAL MEDICINES

MEDICINES

Regulations for natural medicines

HOW TO IMPROVE EU REGULATIONS ON HOMEOPATHIC AND ANTHROPOSOPHIC MEDICINES

Certified organic ingredients are not just used for food production, but also for natural cosmetics and medicines. Organic food is nowadays widely accepted and well regulated in many countries. For other products, regulation and legislation is less developed and often less clear. Christiaan Mol from Wala explains the legislative situation for 'natural medicines' in the European Union.

LEMON VERBENA (ALOYSIA CITRODORA)

BY CHRISTIAAN MOL

Specific therapeutic approaches, such as anthroposophic medicine and homoeopathy have a long standing tradition of using medicines from a natural origin. Such medicines show specific pharmaceutical and therapeutic characteristics. This article looks at how these medicines are dealt with by EU regulations today, the problems of availability that this gives rise to (and people's freedom of choice), and looks at ways in which the regulatory framework could be improved to make these medicines more widely available while guaranteeing a high level of safety.

Homoeopathic and anthroposophic use a wide range of different ingredients, most of which have a natural (mineral, botanical or zoological) origin. Often the plant materials are fresh: as such the materials often have an inherent natural variability, which needs to be taken into account (within reasonable limits) by regulations and regulatory practice.

The manufacturing method applied to the ingredients is a fundamental part of their pharmaceutical identity. Homoeopathic and anthroposophic medicines use specific pharmaceutical technologies. Legal definitions, such as EU Directive 2001/83, article 1, n° 5 and the Medicinal Products Act Art. 4 (33) in Germany recognise this. One widely used process is that of serial dilution ('potentizing'), which gives very low concentrations and dilutions. It is often not possible to materially detect the active substance by conventional analysis. Any possible toxicity should be assessed in real use conditions, by assessing the safety of the quantity of medicine used. However, the relevant laws and standards often to do not make provision for this.

Homoeopathic and anthroposophic medicines are also part of specific therapeutic systems. This has specific consequences for any assessment of their effectiveness. The pharmacological action of these medicinal products differs from that of conventional ones. The latter are considered to work by their interactions with receptor proteins which trigger a pharmacological response at the molecular level. The former are understood to work holistically, stimulating self-healing resources and acting on organizational levels in living organisms. As a consequence the indications and fields of application of homoeopathic and anthroposophic medicinal products only partly coincide with those of conventional medicines.

Providers of anthroposophic and homeopathic medical services mostly prescribe for individual patients, basing their diagnosis on medical factors, although they usually take a broader range of considerations into account than conventional providers. Producers need to make a wide range of medicines available that are tailored to individual prescriptions (i.e. at different dilutions). Usually this means producing small batches, which has further implications for availability as well as for profitability.

There are difficulties in regulatory practice in nearly all EU Member States

EU regulations have been primarily formulated for conventional medicines. They are based on scientific/ and technical criteria that correspond with this medical model. These are intended for medicines mostly produced in huge batches and with high turnover. These regulatory practises are generally applied to homoeopathic and anthroposophic medicinal products without any adaptation. One example is the systematic requirement by some authorities for assays that are meaningless: i.e. non specific analytical markers for stability testing. The complementary pharmaceutical industry questions the added value of such testing.

There is also an associated political/ cultural problem: countries without a widespread and well-established tradition of homoeopathy or anthroposophic medicine face difficulties in finding the right mix of regulatory requirements. For example since becoming an EU member in 2005, Poland has denied market access to all homoeopathic and anthroposophic injectables, although they had been on the Polish market for almost a decade before. While EU legislation on natural medicines has been in place for nineteen years it has not managed to ensure that these products are generally available through the Single Market.

The different medical culture of homeopathy and anthroposophy needs clear support from civil society in order to gain political legitimacy and appropriate regulation. In Switzerland this was achieved when 67 per cent of the population voted

to integrate the products and services of complementary and alternative medicine (CAM) into national regulations and healthcare. Such a political message sends a strong signal to the authorities, industry and regulators about developing appropriate and supportive bureaucratic measures.

Civil society endorses homoeopathic and anthroposophic medicines

One interesting aspect of this situation is that homoeopathy and anthroposophic medicine are actively chosen by private citizens as their preferred regime of medical treatment. There are almost no publicly financed homeopathic or anthroposophic universities (or departments) or hospitals. One consequence of this is that officials in regulatory agencies are unlikely to be adequately trained in these fields, if at all. There is also an inherent challenge to European society involved here: how to integrate the needs and wishes of its own citizenship into its regulatory frameworks? The EU's 2004 Constitutional Treaty refers to 'participatory democracy', claiming that its "institutions shall maintain an open, transparent and regular dialogue with representative associations and civil society." The question is how can this be done in this instance?

How to improve existing regulations and make them more effective?

One of the first jobs facing the industry and its users is to raise awareness among EU institutions and citizens about the limited availability of anthroposophic and homoeopathic medicinal products in some parts of the EU. This reduces people's freedom of choice to access their favoured therapeutic option.

In addition, the industry needs to enter into a closer dialogue with officials about regulatory needs particularly in countries with weak or no traditions in these areas. This is the first step towards developing regulatory structures that are balanced and compatible with the nature of the products. This is a critical issue and the European Coalition of Anthroposophic and Homoeopathic Medicinal Products (www.echamp.eu) has been formed to provide a platform to do this.

Medical professionals also need to formulate demands to "develop and facilitate the integration of well-established and respectable CAM-methods into European health policies with the aim of providing European citizens with the choice, and the added value, that CAM can provide to medicine" (http://www.camdoc.eu/).

2/3 OF THE SWISS POPULATION VOTED FOR NATURAL MEDICINE IN THE NATIONAL LEGISLATION

Future targets

Anthroposophic and homoeopathic medicinal products can be used both alone, for circumscribed pathological conditions, or in a clinical setting that uses other medicines and therapeutic measures. As such any EU regulation for these medicines must consider both a 'single product' and a 'therapeutic system" approach when assessing their effectiveness as part of granting marketing authorisation. Article 16.2 of the EU Law ruling market access for homoeopathic medicines with a therapeutic claim (EU Directive 2001/83) says, that a member state "may retain or introduce (...) pre-clinical tests and clinical trials of homeopathic medicinal products (...) in accordance with the principles and characteristics of homeopathy (italics added) (...)." .The use of such medicines within a wider therapeutic system provides a basis to effectively implement this rule.

In general a system approach to the particular products is more likely to lead to more rational regulatory guidance and practice. This is true for all the products discussed here. The system approach (using health technology assessment reports or system evaluations) needs to consider the effectiveness of the whole therapeutic system (1). Risk/ benefit assessments also need to take this into account.

Regulatory practice needs to be rationally based upon the characteristics of the products being controlled. In the immediate future the main priority has to be building an open and thorough dialogue between stakeholders to identify solutions that are mutually acceptable and beneficial. ■

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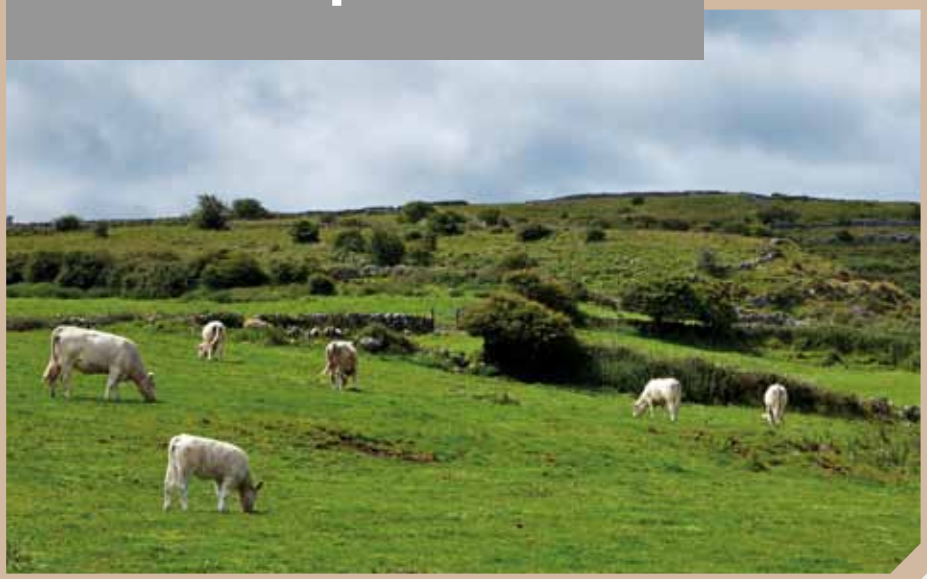
BY DENISE GODINHO

Defending agroecology:

IFOAM challenges the misleading definitions in new FAO report

IFOAM President Andre Leu and Chief Food Security Campaigner Cristina Grandi were in Rome in October at FAO's 37th meeting of the Committee on Food Security (CFS). The meeting discussed a number of important documents, including the first draft of the Global Strategic Framework (GSF). This had been drafted without consultation with the CFS civil society mechanism (CSM) and two reports prepared for the CFS by their High Level Panel of Experts (HLPE). The CSM responded to the inadequate draft GSF by drafting their own version, which pointed out the 'real' reasons behind global food insecurity and hunger.



While the CFS meeting was debating the GSF, IFOAM's Cristina Grandi was busy scouring the HLPE reports and noticed an 'under-the-radar' attack on agroecology and organic agriculture in Annex 1 of the report on 'Land Tenure and International Investment in Agriculture'. The Annex significantly dilutes the concept of agro-ecology and makes incorrect claims with regard to nitrogen and organic farming systems.

While the report does contain some very welcome recommendations on ways to address 'land-grabbing', it includes the use of synthetic inputs in its description of agroecology. It seems that FAO recognizes that it can no longer ignore the growing calls to scale-up agroecological approaches but is struggling to reconcile this with external pressure to maintain support for synthetic inputs and 'business as usual' conventional agriculture.

Worryingly, the key fundamental concepts of agroecology are not articulated in Annex 1 of the report. Instead the text is a classic 101 on basic conventional agronomy that ignores the principles of diversity, synergy, efficiency and resilience that are emphasized in agroecology. The report also makes several misleading claims about agroecology and organic farming. For example, in the context of plant nutrient requirements, in particular nitrogen, it states "organic agriculture that rejects the use of nitrogen fertilizers will therefore require much more land to produce the same amount of food as agriculture with judicious use of fertilizers".

The claims made in the Annex totally disregard peer-reviewed articles on the productivity of well managed organic and agroecological production systems. Organic practices negate the need for synthetic pesticides and fertilizers by improving soil fertility and activating soil biology by using composts, natural minerals, cover-crops and through the recycling of organic materials. Cultural and ecological management systems are used as the primary methods to prevent, rather than control, insect pests, weeds and diseases, with a limited use of biocides of mineral, plant or biological origin as the tools of last resort. Furthermore, organic production systems have numerous methods to ensure that adequate bioactive nitrogen is available for optimum crop growth. These include green manures, composts, legumes and free-living nitrogen fixing organisms such as azotobacters and cyanobacterias. The use of these methods obviates the need for synthetic nitrogen fertilizers produced by the Haber–Bosch process that causes emissions of nitrous oxides, eutrophication of major water bodies, and the contamination of groundwater and aquifers.

IFOAM vigorously raised this issue at the CFS meeting and later teamed-up with SOCLA (The Latin American Scientific Society of Agroecology) to challenge these claims in an official letter to the HLPE, outlining the correct definitions of agroecology and providing references to published peer-reviewed literature that provides evidence of sufficient nitrogen availability in organic farming systems. ■

Read the full letter at: www.ifoam.org/pdfs/IFOAM_SOCLA_letter-to_HLPE-1.pdf

American people have not yet recognized the seriousness of the GMO issue

BY GILA KRIEGISCH

GENFREI GEHEN BECOMES THE RIGHT2KNOW MARCH IN USA

Everything went really quickly once Joseph Wilhelm (founder and General Manager of Rapunzel Naturkost), the initiator of two European "Genfrei Gehen" marches (for a GMO-free world), inspired and motivated the American anti-GMO movement to organize a similar activity.

Within several weeks, a march from New York City to the White House in Washington DC was arranged. The goal of the march was to initiate a labelling campaign for genetically modified food products. To support our American friends, a small RAPUNZEL team went all the way to the US and participated in the march. We also used the march to protest against the lack of labelling for genetically modified animal food products in Germany .

Unfortunately, most American people have not yet recognized the seriousness of the GMO issue, but Joseph Wilhelm is optimistic: "The more overwhelming the odds the more important it is to start fighting against them." Altogether we marched about 500 kilometres in 16 days and spoke with many people along the way. On October 16th, the group of marchers arrived in Lafayette Park next to the White House, where the final event took place in front of a big crowd. There, in addition to Joseph Wilhelm, several top speakers including Vandana Shiva, Percy Schmeiser and Michael Funck, owner of the largest natural health food distributor in the USA, took the microphone. Michael Funck brought both of his children onto the stage and declared: "My kids are one of the most important reasons why I am against GMOs."

All in all, Joseph Wilhelm has marched a total of 2,800 km for a GMO-free future. The American march was just the kick-off for numerous further activities. At the moment an online signature petition, "Just label it", is underway and a big march is planned in California in the autumn of this year.

This is just a start for the USA, and we are looking forward to many future, international activities as the GMO issue affects all countries and does not stop at borders. ■

Genfrei Gehen

In 2007, Rapunzel organized the first march for a GMO-free future across Germany from the city of Lübeck in Northern Germany all the way to Lindau on the shores of Lake Constance in the south of the country. Joseph Wilhelm motivated a group of co-marchers with very different backgrounds to march 1,200 km with him across Germany.

In 2009, Joseph Wilhelm continued his long distance campaign by marching a trans-European route from Berlin to Brussels. The German organic food industry used the tour start to demand legislation from politicians in Berlin for a GMO-free agriculture. During the two marches more than 80,000 signatures for a GMO-free agriculture were collected. These signatures were handed over to German politicians.

The initiative: genetically engineered food in the USA

The Right2Know March is one of numerous American initiatives that demand labelling of food products containing genetically modified ingredients. In September 2011, a GMO labelling petition was filed with the US Food and Drug Administration (FDA). Before the start of the Right2Know March, Joseph Wilhelm delivered a petition from the international organic umbrella organization, IFOAM, to the United Nations in New York City. In California and other federal states, preparations are underway for a referendum on GMO labelling in 2012. In the spring, the Organic Consumer Association initiated a signature campaign 'Millions against Monsanto'. Various websites such as www.justlabelit.org and www.labelgmos.org collect online signatures in order to put pressure on politicians to address the GMO issue.

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Mild climate, fertile soil

Albania grasps organic opportunity

BY JACQUELINE FORSTER-ZIGERLI

Communist isolation, political unrest and economic crises have weighed heavily on the southern European republic of Albania for decades. But now the country is making up for lost time. With hard work, new ideas and entrepreneurial spirit, Albania's organic farming sector is catching up with western Europe.

Success with medicinal plants

precious and aromatic essences has risen in this time to ten tonnes per year. With help from the SASA project he was able to add a cool room to his premises, which is indispensable for the quality of the herbs and berries.
At this year's BioFach in Nuremberg, Hysenai is presenting his latest innovation: an organic shampoo that was developed and tested through the SASA project, with outstanding results. "This new shampoo is a real stroke of luck for us;" stresses Hysenai, "it allows us to refine our liquid effluent and use it for this new purpose." Everybody wins: the producer, the consumer and the environment!

Hot tip: olive oil with St. John's Wort

Another new entrant to the medicinal plants business is Shpresa Shkalla. She owns a small olive-pressing business on the outskirts of Tirana. Her organic olive oil is sold in outlets including the Sheraton Hotel in Tirana and specialist Swiss retailers (such as Claro), and has won international prizes. All the more astonishing, given the seemingly overwhelming competition from Greece, Spain and Italy. But Shpresa Shkalla's success lies in developing the new organic olive oil with a trace of St. John's Wort (Hypericum perforatum). SASA supported the development of the new product, which not only provides an income to 40 farming families who cultivate and gather the valuable herb, but is also giving consumers a natural remedy with which to fight off minor colds. The oil enjoys great popularity in Albania.
Some of the direct beneficiaries of this are Ndriçim Duli, his father Muhamet and his uncle Ramazan. They live in the north of Albania, in the Shkodra region. "Two years ago we started to tend the 40-year-old olive trees again," says Muhamet. "Before that we let the trees grow wild, harvested a few olives and pressed the oil with our feet. We needed the wood for fuel. But otherwise, we had little use for the olives." After becoming linked with different actors within the SASA network, the Duli family decided to start maintaining the olive grove once more. One of the reasons was that they can supply the olives to Shpresa Shkalla's press in Tirana and receive a good price. "I had no idea that there was market demand for olives and that the oil is so popular in Europe," explains the son, Ndriçim Duli. "Now I'm very glad I had the courage to convert to the production of organic olives." He took this step along with ten other neighbours, a group that will soon double in view of the rising sales of the sought-after oil.

Winter vegetables from the south

In the south of Albania the climate is predominantly mild. The soils are fertile and thanks to a good water supply, early vegetables can be reliably produced.
Half of the country's domestic vegetable production takes place in this region. In Mersin Lika's warehouse there are stacks of sweet peppers, tomatoes, persimmons, cucumbers and yellow beans. These are destined for export to the neighbouring Balkan countries, Ukraine, Hungary and the Czech Republic. The business partner is the large Slovenian supermarket chain Mercator. Lika and Mercator started doing business together after they were introduced to each other by SASA. One hundred farming families have been able to secure their livelihoods on the strength of this cooperation.

Sustainable Agriculture Support in Albania

Sustainable Agricultural Support in Albania (SASA) was launched in 2001 by the Swiss Agency for Development and Cooperation, SDC. Its aim was to maintain and improve livelihoods in the rural areas of Albania. Since 2006 SECO, the Swiss State Secretariat for Economic Affairs, has supported the work of SASA, not least in the establishment of marketing structures for the export of organic products. The Research Institute of Organic Agriculture (FiBL) has been implementing the project for the past ten years. The project came to an end at the end of 2011, leaving around 200 organic farmers able to face the future with confidence. Thanks to SASA they now also have their own organic organization, BioAdria. The project also founded an EU-accredited certification body, Albinspekt. And by virtue of all this work, organic agriculture has become a political priority in Albania with a dedicated law. "Albanian organic agriculture has huge potential," says Thomas Bernet, the project's coordinator from FiBL. "The geographical location, with pristine landscapes in the mountains and a Mediterranean climate on the coast ensure a great diversity of products." In addition Bernet sees a mood for change is beginning to grip the country. "The young generation of Albanians is ambitious, full of ideas and zest for action."

The SASA project also helped to set up seven sales outlets throughout the country. They include "Healthy Corners" in one of the largest supermarket chains and the Duty Free Shop at Tirana Airport, two restaurants which serve typical Albanian food, and a delivery truck that has been converted into a shop. These sales outlets all offer not only organic products but also another 60 or so high-quality products from Albania which bear the "Alpe Albania" and "Prodhime Jugu" labels of origin. Both labels are a further significant achievement of the SASA project.

For more details about this project contact thomas.bernet@fibl.org

Organic agriculture has become a political priority in Albania

Agriculture: the second most important sector

The Republic of Albania is situated in south-eastern Europe on the western side of the Balkan Peninsula. The country is bordered by Kosovo to the north-east, Macedonia to the east and Greece to the south. With an area of around 28,800 square kilometres it is around two-thirds the size of Switzerland and has three million inhabitants. Albania is a traditional agricultural country. About a quarter of its total area is agriculturally usable and agriculture is the second most important sector of the Albanian economy, after the tertiary sector. Forty four per cent of the population work in agriculture, and over half of all Albanians live in rural regions, where agriculture is the main source of income. Farmers contribute 19 per cent to gross domestic product, yet receive only 0.5 per cent of the national budget. Productivity in the sector is persistently low. The main problems are a scarcity of investment capital, outdated production methods and a lack of access to markets. Nevertheless, organic agriculture offers great potential since it enables the country to make sustainable use of, and capitalize on, its rich biodiversity. ■

Watch the video on the SASA Project on YouTube -> SASA Albania
http://www.youtube.com/user/FiBLFilm?feature=watch

BY CONRAD THIMM

Controls are good but trust is better

A certificate is not market access

An organic certificate is necessary to sell organic products in markets that require them. No doubt about it. But a certificate is not enough.

One also needs trusting buyers, a demand for good products and adequate logistics. This should be obvious, but these are all complex matters, and this is perhaps why much more focus and emphasis is often put on the clear-cut 'Yes or No' of a certificate. Certificates are much easier to discuss than the nitty gritty of specific organic production, markets and supply chains. It is a bit like Mullah Nasruddin searching for his key not where he lost it in the street, but where the street light is.
Having been an organic consultant and international inspector in the 1980s, when private standards emerged before a legal status of organic food and farming was established anywhere, I am well aware of the advantage of a clear definition of what organic is, and the need for a certificate to prove compliance. But now, as a marketing and organizational expert, I am often confronted with an expectation that a product should sell easily in a specific market just because it carries the appropriate certificate. This is not the case.

Nobody eats certificates

Consumers want food they can trust. Home-grown food is the most trusted. Food grown by a trusted neighbour is almost as good. A reliable grocery shop around the corner comes next. But the further away, the more anonymous or even hostile food production and trade is felt to be, giving rise to ever-growing demand for trusted food that is "pure", "natural" and "organic". This is one reason why most demand for organic food is in large cities and urban areas.
It is the feeling, the instinctive relationship we have with a grocer or a branded product that is the most important driver of trust. In its simplest form we trust people or brands. In a much more sophisticated form we trust a store or even a whole chain. In this case the multiple retailer becomes a brand in its own right. That is 'state of the art' retailing.
Trust is always a relationship that is based on feelings and instinct, a "right brain" activity as the neurosciences call this nowadays. Food, whether to ward off hunger, or for pleasure, is also an instinctual "right brain" activity. A certificate, by contrast, involves rationality, facts and figures; typical "left brain" activities. It does not stand a chance against trust in food. But when a certificate supports trust by facts and figures, it is very welcome. Grocers use it happily to back trust in the product and the store.
A grocer would never sell a product just because it has a certificate. A grocer needs a good product that fits into the overall offer, at a good price with a nice margin and reliably delivered to the store or the central warehouse. The grocer passes the consumer's call for trust down the

HOME GROWN FOOD IS THE MOST TRUSTED. FOOD GROWN BY A TRUSTED NEIGHBOUR IS ALMOST AS GOOD

WE NEED TO PUT MORE FOCUS ON THE LIVELY ASPECTS OF PARTICIPATORY, HANDS-ON ORGANIC RESEARCH AND DEVELOPMENT

FARMERS AND CONSULTANTS DEVELOPING ORGANIC FARMING TOGETHER

supply chain. As trust is difficult to handle with many suppliers, the certificate provides a substitute.
But the grocer never takes the certificate for the real thing, the food with all its quality requirements. And this applies all the way down the supply chain to the distributor and the importer. Something though, changes down the supply chain. The further down the chain one goes the more specialized people and companies usually are. They don't handle 5,000 items in 100 categories but only 1 – 5 categories. They meet their suppliers in person and need to trust them. Reliability and product quality come first, but the certificate is also needed. For them controls are good (and necessary), but trust is better.
Those wanting to sell have to establish trusted relationships with buyers and to deliver reliably good products at a competitive price. This is best done by people who know the product, the ways of the producer and the customer: someone who can calculate. Marketing is an important service for producers and consumers, combining the ability to make and sustain relationships and know-how of the product and economy.

Certificates don't grow anything

When I started as an organic farming consultant in the 1980s, it was mostly on poor sandy soils in Northern Germany. I did not know the answers. Nobody knew them. Together, the local farmers and I, developed ways of organic farming on these poor sandy soils. They brought in their much deeper knowledge and experience of their farms and the surroundings and I brought in what I had learned on organic farms elsewhere, through exchanges with other consultants and at university. Our farmer's organization grew, more farmers and consultants joined, but the principal approach remained: farmers and consultants developing organic farming together. The most important steps forward usually came from farmers. Our role as consultants was more to recognize breakthroughs and to filter what was applicable where. It was a real participatory research and development unit and while sometimes we made mistakes we made tremendous overall progress in developing good organic practices on those soils and this development continues in Germany to this day.

SELLING INVOLVES ESTABLISHING RELATIONS OF TRUST AND DELIVERING RELIABLY GOOD PRODUCTS AT A COMPETITIVE PRICE

This is what organic food and farming is all about: constantly developing and improving the best methods for healthy soils, plants, animals and human beings, serving customers and markets. This is the production basis for having good marketable products. It is the enthusiasm for working with nature in an agro-ecological system providing good food.
Fundamentally, this has nothing to do with certificates. Practically it does, because the certificate is necessary and it is something that requires a lot of documentation and bureaucracy. But this is not why people started organics. They started for the enthusiasm for the approach, or for the money, or both. Again, these are feelings and instinctive impulses, "right brain" activities. And certificates are like bookkeeping, facts and figures "left brain" activities.
If we can integrate both sides of our brain's activities this brings about the successful fulfilling experiences that we long for. This is hard to achieve if we focus too much on a certificate. And this is what I see, hear and read rather too often, an excessive focus on the certificate and too little on developing good organic farming practices.

My experience in many countries has taught me that there are quite a few different reasons for not focussing on good organic farming practices. Often the need for research and development for the specific situation is not recognized or seems to be too expensive. Or there is no available catalyst (e.g. in form of a consultant). Sometimes the cultural setting is such that a consultant is expected to know everything and can not, or must not, work on a par with farmers.

Conclusions and prospects

The basis of marketing is trust, a relationship between people. The basis of organic farming is farmers and growers working with nature, meeting different challenges. Organic food and farming can be enhanced by putting more focus on the lively aspects of participatory, hands-on organic research and development - that integrates production, marketing and economy according to the specific natural and social environmental conditions. Organizations and companies should apply this to their inner lives and their external communications and certainly, last not least, to education for organic food and farming. Certification, where needed, should be a secondary consideration. ■

BCS – from the roots of organic agriculture to

A leading force in certification

Peter Grosch is old enough to be retired, but he is a long way from even thinking of that. The agricultural economist, who has been active in organic matters for almost 40 years still has a lot of ideas and plans and has a 'normal' 70-hour-working week.

BY JAAP VAN WESTERING

ORGANIC SAFFRON FROM IRAN

"When I have started to engage with this idea, we were considered to be ridiculous and people opposed us. Sometimes it got very personal and I felt in danger. I am so happy that the world has changed somewhat in this respect" said Peter. His experience in scientific research (5 years) and the management of Bioland (9 years) and Demeter (2 years) provided the base to form the control body 'Bio-Control-System Peter Grosch GmbH' in 1990, in partnership with one of the pioneers of distributing organic food, the German entrepreneur Ernst Werner Schmidt from Nürnberg.

When an attack from the chemical industry meant this name could not be used it was changed to 'BCS Öko-Garantie GmbH', under which the company is now known all over the world. The original idea to focus on Germany and Europe changed even in the year of its formation and, from 1994 onwards, BCS became much more international, with activities in Central and South America and the Caribbean. Collaboration with GTZ, the German government's official

YOUNG WOMEN SELECTING ORGANIC COFFEE IN A WASHING STATION IN ETHIOPIA, AND GATHERING SAFFRON IN IRAN

institution for international cooperation, gave Peter Grosch the chance to help to shape equivalent organic laws in many countries; in almost all the states of Central America, and some in South America. As this expertise became better known, other countries – such as Ethiopia, China and Saudi Arabia – also asked for his support. Today BCS has more than 250 employees, has a presence on every continent (except Oceania), is active in 80 countries and has local offices in almost 30. It currently certifies more than 5,000 projects, involving over half a million farmers and operators. The key selling point for BCS is its strong reputation on the 'home market': "People trust us", Peter Grosch says, "they know that not only do we know what organic is about, but they have confidence that we are trustworthy and reliable". Thus, the demand for BCS's services, which started from well-established organic enterprises in Germany is steadily increasing, spreading across many countries in the world from South Africa to Russia, from Chile to China.

"There are so many problems in the world of organic certification", Peter Grosch says. "They start from too many standards that redefine the same principles and aims, they include complications created by state authorities - trying their best to improve organic integrity, but imposing highly unrealistic measures and only creating more costs, instead of more security. Then there is the horrible reality that some certifiers are involved in fraud. For me the only consequence from all these experiences is to strictly carry the organic idea forward and implement the laws in a way that ensures organic integrity. It makes no sense to make a leaf analysis of coffee from the Ethiopian forest, as the risk of contamination is close to zero, but when we see that some parts of banana production generate residues, we have to be present on the ground in order to inspect and analyze more than is actually prescribed."

BCS see their role not as one of being 'organic food police', but one in which it "helps people to do things as they have to be done". Certifiers must not give consulting services, but many farmers don't fully understand the organic production system and the conditions and the standards. This can create them a big problem. "Many times there are no consultancy services, so we have to inform the farmers about the principles and ways of organic farming. Nobody else is as close to them as we are – and we can't sanction them if they weren't even informed before!" says Peter Grosch. "For me the most important part of our work is the satisfaction of being part of a making a significant improvement of the living conditions of millions of people. Our certification gives them the entrance ticket to a market where they receive a just payment and that opens the door of future opportunities for the next generation. Instead of leaving the countryside and going to the slums they have a base for making a living at home!" ■

BY LUKAS KILCHER, GIAN NICOLAY & GILLES WEIDMANN

The African organic agriculture training manual: supporting trainers and farmers

The best sustainable agriculture practices

The Research Institute of Organic Agriculture (FiBL) and its partners have created a manual to support smallholder farmers implement organic farming techniques and improve long-term agricultural productivity, with the ultimate goal of reducing poverty and hunger in Africa. FiBL has invited organizations involved in organic and sustainable agriculture training in Africa to implement and test the materials.

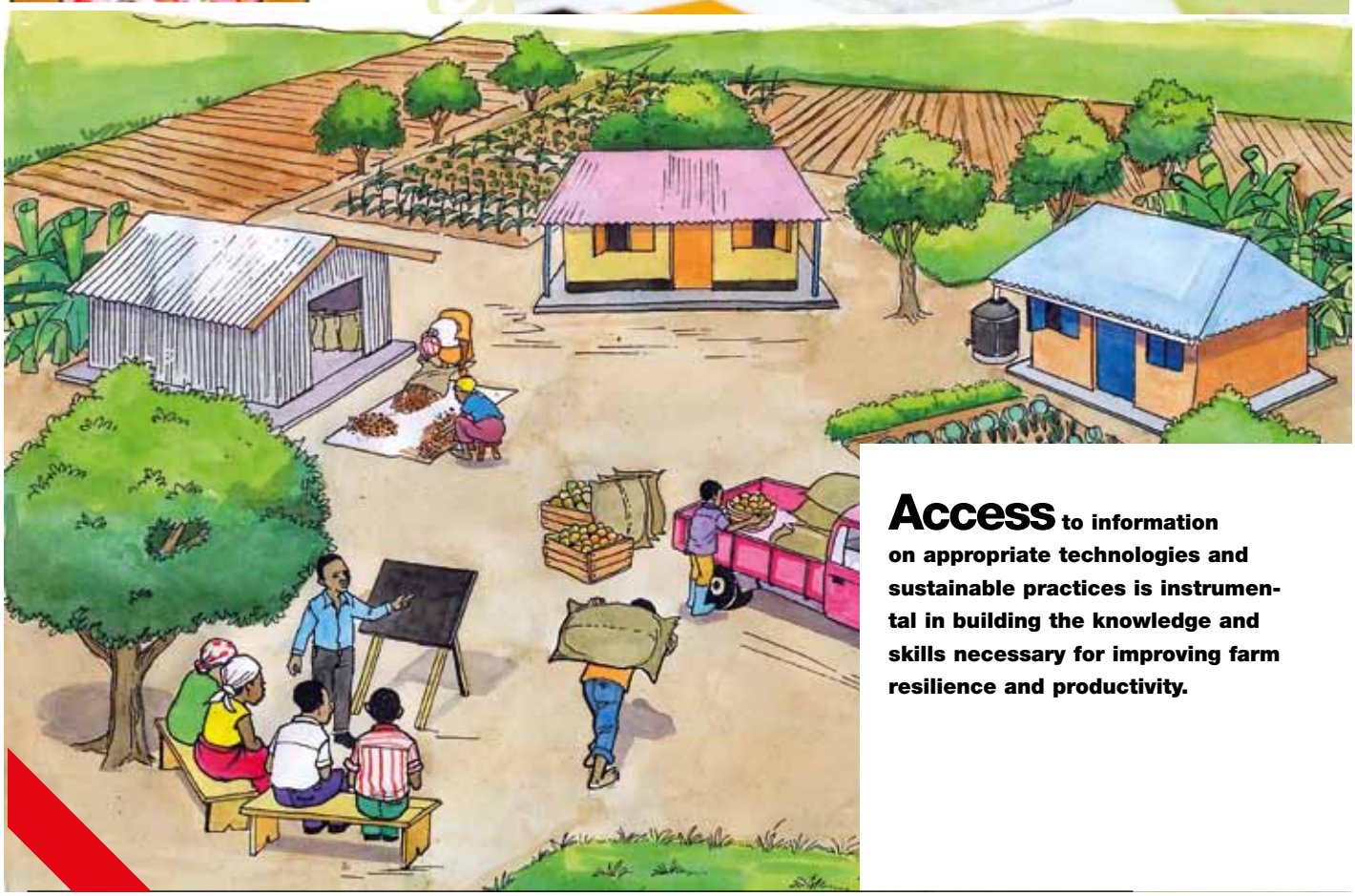
More than half of the people living in sub-Saharan Africa depend on farming and natural resources for their livelihood. Most smallholder farmers must rely on locally available technologies and on-farm inputs to maintain or improve food production, food security and to raise their income. Efficient use of local resources is crucial to increase productivity and sustainability of farming. This requires information about specific agricultural practices and access to markets, which most farmers in Africa do not yet have. Information provided by the African Organic Agriculture Training Manual will empower farmers to use their resources more efficiently and encourage them to gain better access to markets.

Education is the key

Organic agriculture can increase resource efficiency, secure agricultural productivity and raise incomes. It is recognized as one of the most successful means of increasing production and profits in an environmentally-friendly and long-term way, but it is knowledge-intensive. It requires knowledge on agroecology and the management of site-appropriate, diverse farming systems. It also requires specific knowledge on certification and marketing, if value added marketing is a goal. In order to successfully increase and resource efficiency, secure agricultural productivity and raise incomes, considerable investments in appropriate technology and know-how are necessary. Major constraints to adopting low external input sustainable agriculture in Africa are the low education level of the farmers and the access to information. Nevertheless, African farmers, both women and men, show great interest in new methods of farming, especially if they are low-cost and come with the prospect of stabilizing and even increasing their income.

Today, however, there is a lack of ready-to-use educational material on organic and sustainable techniques, farm management and marketing that supports trainers

Experts from FiBL worked with African specialists to produce a manual of agricultural best practices for growers, farmer groups and extension workers. The training materials will strengthen communication between extension staff and smallholders.



Access to information on appropriate technologies and sustainable practices is instrumental in building the knowledge and skills necessary for improving farm resilience and productivity.

A team of illustrators from Uganda produced many practice-oriented and easy to understand illustrations, reflecting African rural culture. This drawing illustrates the different prevention and intervention methods in organic weed management.

and extension workers effectively. There is a need for training institutions that assist farmers in understanding market opportunities and adapting their production accordingly, without jeopardizing natural resources. Farmer groups need capacities to train and educate their members on technical and economic issues in a professional and effective way. For effective training services, the challenge is to provide high quality market oriented solutions, with the goal of improving farm resilience and increasing incomes.

Boosting development with innovative training tools and partnerships

FiBL has joined forces with training organizations in Africa to address the gap in agricultural education and help farmers to improve their land, their farming, and their lives by providing solid training and learning tools in organic farming. The African Organic Agriculture Training Manual project, which was started in October 2009 with funds from the Bill and Melinda Gates Foundation (BMGF) and since 2010 with funds from the Syngenta Foundation for Sustainable Agriculture (SFSA) aims at delivering and enabling best farming practices to farmers, farmer groups, extension workers and trainers. Together with its African partners, FiBL began by identifying and reviewing existing existing and available training and extension materials. This review showed that only few materials exist, that the language is often difficult to understand, illustrations are not intuitive, there are gaps in information and in many cases the information is too generic. FiBL and its partners have, therefore, created an illustrated training manual and a comprehensive online directory of organic agriculture in Africa to support smallholder farmers to implement organic farming techniques, improve the sustainability of agricultural production and increase market opportunities. The partners include the International Federation of Organic Agriculture Movements (IFOAM), the African National Organic Agriculture Movement (NOAMs) and agricultural experts from across Africa.
This project has so far produced materials for indoor and outdoor training including technical and didactical information, overhead transparencies for trainers, posters, booklets and videos. All materials are comprehensive, easy to understand and extensively illustrated. Radio programmes and mobile phone applications are planned to complement the training materials. There are also plans to translate the manual from English into French and the final version will also be translated into other African languages. The training materials and the resource directory are available for free download from the Organic Africa website at: www.organic-africa.net

Improving and completing the training manuals on a step by step by step basis

To ensure the training materials provide the most useful information and are applicable to trainers, a two year field validation process started in December 2011. All the organizations working in extension and training of sustainable and organic agriculture in Africa are invited to test the training materials in their context and to give feedback. A feedback form is available on the website. In parallel with the validation, new modules and tools are being developed to complete the training manual. A final, consolidated version is planned for 2015.

A solution for the future of Africa

Organic agriculture is recognized in Africa as an affordable and valuable alternative, given the fact that it provides multifunctional benefits and plays a significant role in addressing food security, poverty and climate change challenges in Africa. In a meeting in Kenya in May 2011, the African Union launched an action plan to develop African ecological and organic agriculture jointly with stakeholders and partners including IFOAM. This action plan aims to mainstream “Ecological Organic Agriculture” into national agricultural production systems by 2020 and mentions research, training, extension, information and institutional capacity development as the main pillars. FiBL and its partners are happy to contribute to this action plan with valuable training materials, research and extension activities. ■

The agricultural sector accounts for 10% of China's GDP and almost 40% of its labour force

SHAPING ORGANIC AGRICULTURE IN CHINA

China is a large country with a long farming history. Agriculture remains a very important sector with over half the population relying on farming. China's agriculture is characterized by a huge number of smallholder farmers with extremely small farms, working in very diverse contexts.

YICHING SONG, YANYAN ZHANG &
EDITH LAMMERTS VAN BUEREN

The national average farm size in China is only about 0.6 ha. China's rapid recent economic development has led to even more diversification in agricultural production and consumption. We present here two different models developed by smallholder farmers in producing organic vegetables.

China's agricultural sector accounts for 10.3% of China's GDP and 39.5% of its labour force (2010 figures). Vegetable production is especially important and accounts for more than 10% of total agricultural production. Roughly 78 million rural dwellers work in vegetable production and an additional 80 million work in vegetable processing and marketing. China's vegetable exports have greatly increased in the last two decades, yet still account for only about 1% of total production, with the vast majority of production being for domestic consumption. Chinese food culture encourages vegetable consumption; annual per capita consumption reached 140 kg in 1980. It has since declined, yet is still much higher than the world average of 100 kg. The market has now entered a new development stage in which the pursuit of quality and diversification are important factors.

Organic growth in China

Certified organic production in China started in the early 1990s, driven by export markets and has developed significantly since then. Between 2000 and 2006, China went from being the forty-fifth largest organic producer (in terms of the area of organic land) to second place, trailing only behind Australia. Currently, China has about 4 million hectares of land under organic management, about 50% certified for wild collection, 15% under conversion and the rest being used to cultivate crops. In 2007, total domestic organic production reached nearly 3 million tons and the value of organic exports was about 350 million US$. Domestic demand is also increasing as a result of rising average incomes and recent food safety scandals. The Chinese Ministry of Agriculture expects organic acreage and production to increase by 20-30% per annum in the coming years (to 2017). This increase is expected to be mainly driven by domestic demand for high quality and safe food.

Different farming systems

There are currently various organic production systems operating in China. We examine two contrasting models here: an export driven model and Community Supported Agriculture (CSA). Organic vegetable production mostly started in the north-eastern and south-eastern coastal areas (Shandong, Fujian, etc) during mid 1990s and early 2000s and was aimed at the export market. Only recently have these enterprises started to explore the domestic market – driven by rising domestic demand and a decline in export premia caused by changes in the RMB's exchange rate. These enterprises now also focus on the rich upper class population in big cities, such as Beijing and Shanghai, who are willing to pay high prices for organic produce

Export oriented production in Shandong

An example of an export oriented organic enterprise can be found in Jihetang village (Shandong Province), the leading area for organic vegetable production, marketing and export located in a favourable coastal area. The initiative was started by 315 households, heavily reliant on agriculture and with an average size plot of about 0.4 ha each. The village started organic vegetable production in 1994 becoming the production base for an organic vegetable processing export company, Tai'an Taishan Asia Food Company (TTAFC). The collaboration has continued until today and expanded to include more households and increase its acreage. The change has increased farmers' average household income from 5,000 Yuan in 1994 to 23,610 Yuan in 2011. This increase has

mainly come from yield increases bought about by technical improvements.

TTAFC is now the most important organic vegetable exporting company in Shandong. In 2011, it was contracting 27 farmers' cooperatives from different villages involving about 5,800 farming households that have converted to organic vegetable production. Jihetang village was the first of these and remains the largest one among them. TTAFC is a food processing company that exports frozen organic vegetables, mainly to Japan, USA and Europe. As a processing company it needs large and secure supplies. At the same time the smallholder farmers urgently need technical services, financial support and market linkages, which TTAFC provides. To reduce transaction costs TTAFC has a contract with the villages farmers' cooperatives, a model it deployed from the very beginning in Jihetang Village. These cooperatives act as a collective platform linking hundreds of smallholder farmers to the company. They also channel the technical and financial support provided by the company, arranging the contracting, certification, production planning, technical services, quality control, supplying inputs and arranging collection, delivery and other services for their farmers. They are now even considering organic seed production.

TWO MODELS OF VEGETABLE PRODUCTION AND MARKETING

Community Supported Agriculture (CSA) in Guanxi

The CSA model for organic farming and marketing was introduced into southwestern China, in 2005 by Partners for Community Development (PCD), a Hong Kong based NGO. The concept has developed rapidly in the last few years and there are now over 200 farms within the national CSA network plus hundreds of unknown ones, spread across the country, that follow the same concepts and principles. The CSA model directly links smallholder producers to ordinary consumers, providing them high quality organic vegetables at a reasonable price. There is normally no formal certification, and the relationship is based on interactions between producers and consumer which foster mutual trust and benefits. A few CSA farms are trying to introduce community based certification based on the Indian model.

A good example of a CSA initiative can be found in Guangxi, a relatively remote poor area. This initiative was started by a group of 5 women farmers in Shanggula village who started organic vegetable farming in 2008 in collaboration with a local organic restaurant called 'Local Produce for Local People' and was one of the pioneering attempts at introducing the CSA model in China They were supported in their efforts by Farmers' Friends, an NGO, and a research project of the Centre for Chinese Agricultural Policy (CCAP). The number of farmers involved, total production, the range of varieties and quality have all increased over the years. It can now meet the needs of the restaurant and supply a number of other customers. The participating households have seen their income from organic production increase from 146 Yuan in 2009 to 7,945 Yuan in (the first 9 months of) 2011. The women's group is now experimenting with expanding into pig farming and looking for other organic value-added items, such as flower tea, herbal medicines, fresh maize, chickens and ducks.

Prospects

The emergence and success of these two contrasting models reflects the different needs and interests of producers and consumers in different contexts. The export oriented model is a full value chain operation which uses contract farming to ensure a regular and large supply of safe and high quality organic vegetables for export and for high income domestic consumers. This model is appropriate for export driven and commodity based production in an area such as Shandong. It is one that requires formal market channels, certification, trade marks, advertising etc. By contrast the CSA model is based on local production and consumption, directly linking producers to consumers through rural-urban interactions that develop mutual trust. It is a small scale local market focused on a diversity of high quality local products in small amounts. This model is more relevant for subsistence farmers and ordinary local organic consumers. It is one that has the potential to attract and influence more domestic consumers and to close the rural-urban divide. Both examples show that a collective platform, structured either as cooperative or a group, plays a crucial role in supporting and linking smallholder farmers to markets. ■

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Edith Lammerts van Bueren is a Professor at Wageningen University, the Netherlands, currently collaborating with CCAP.

BY PETER BRUL

No space for fraud in organic production: tighter controls are bearing fruit

In December last year, seven people (five owners or directors of a dozen companies and two employees of a control body) were arrested in Italy by the police, accused of having committed fraud by selling conventional products as organic products using false invoices and certification documents.

Several different products were involved including field beans, soybeans and corn (for animal feed) and lesser amounts of wheat. The majority of products came from Bulgaria and Romania. The fraud dated back to a period between 2007 and 2009. As soon as the inspection body's internal audits identified the criminal activity it fired the two employees involved and reported the matter to the authorities. The five "entrepreneurs" and the two inspectors are now all in prison. Over the last year, all the Italian certification bodies have worked closely together with the Italian officials, provided supporting documentation and data that has facilitated and deepened the investigation.

The IFOAM EU Group condemns this fraudulent and criminal activity and welcomes the conclusion of the two-year police investigation. "There is no space for criminals in the organic sector who think that fraudulent business is the way to make easy money", stated Christopher Stopes, President of the IFOAM EU Group. "These suspected criminals have undermined the good work of many hundreds of thousands of organic farmers and businesses throughout Europe (and the millions around the world) who work to the highest standards of integrity in the farm-to-fork organic supply chain. Together the organic sector sustainably produces good, healthy food and a clean, safe environment."

"We are glad that, thanks to the tight organic controls in place, the investigations of the Italian authorities in cooperation with the Italian organic sector that provided the necessary documentation and data, have seen an end to this incredible case", added Marco Schlüter, Director of IFOAM EU Group. "Unfortunately fraud is an ever-present risk in a premium priced market and the rapidly growing organic market is no exception, as this case of criminal exploitation reveals." ■

Calendar Items

FEBRUARY 21-23, 2012
International Organic Poultry Conference (mainly German spoken!) / Magdeburg, Germany
www.bioland.de

MARCH 8-11, 2012
Natural Products Expo West 2012
Anaheim, USA
www.expowest.com

MARCH 19-25, 2012
The 2nd World Conference on Organic Beekeeping
San Cristóbal de Las Casas, Chiapas, Mexico
www.abejas.hypernet.com.mx/

APRIL 13-14, 2012
The 44th Intern. Conference on Organic Sector Development in Central/Eastern European and Central Asian Countries / Izmir, Turkey
turkey.organic-conference.info

MAY 2-4, 2012
The 2nd African Organic Conference
Lusaka, Zambia
www.africanorganic conference.com

MAY 9-12, 2012
Organic Marketing Forum
Warsaw, Poland
www.organic-marketing-forum.org

MAY 24 -26, 2012
BioFach China
Shanghai, China
www.biofach-china.com

SEPTEMBER 12-14, 2012
Organic Animal Husbandry Conference
Hamburg, Germany
www.ifoam.org/animalhusbandry2012

SEPTEMBER 19-22, 2012
Natural Products Expo East 2012
Baltimore, USA
www.expoeast.com

SEPTEMBER 25-26, 2012
Natural Cosmetics Conference
Berlin, Germany
www.naturkosmetik-branchenkongress.de/en

OCTOBER 25-29, 2012
Salone Internationale del Gusto – Terra Madre
Torno, Italy
www.salonedelgusto.it

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February 15-18, 2012 - Nuremberg Exhibition Centre

IFOAM, patron of the BioFach 2012, the largest international organic fair, looks forward to welcoming you in **Hall #1, Booth #240**. Visit us to learn about IFOAM's latest work, our new publications, or make your membership fee payment for 2012.

During these four days, IFOAM will organize a series of events to share information and some of the latest debates in the Organic world. From the GOMA Conference, addressing issues of trade barriers on organic markets, to the various thematic congress sessions, focusing on major themes such as food security, RIO+20, standards or sector development, participants will have the opportunity to obtain information, network and share opinions. See IFOAM's congress program below for more information.

Wednesday, February 15, 2012

14:00 - 15:00 Let the Good Products Flow!

Room Oslo

Learn about the outcomes of the Global Market Access Conference.

***Moderator**: Dr. Sophia Twarog (UNCTAD)*
***Speakers**: Diane Bowen (IFOAM), Matthew Holmes (Canada Organic Trade Association), Laura Montenegro (Argencert S.A.)*

14:00 - 15:00 The World of Organic Agriculture - Statistics and Emerging Trends

Room St. Petersburg

Find out about the latest statistics and market data on organic agriculture worldwide.

***Moderator**: Markus Arbenz (IFOAM)*
***Speakers**: Dr. Helga Willer (FiBL), Amarjit Sahota (Organic Monitor), Beate Huber (FiBL)*

15:00 - 16:00 New Ideas on how Government Authorities can use IFOAM Accreditation

Room Oslo

Easing the burden of international trade requirements for organic products

***Moderator**: Robert Duxbury (IOAS)*
***Speakers**: Jan Deane (IOAS), Andre Leu (IFOAM), Volkert Engelsman (Nature and More Foundation), Michel Saumur (Canadian Food Inspection Agency), Jake Lewin(California Certified Organic Farmers), Laura Montenegro (Argencert S.A.)*

16:00 - 17:30 Rio+20 & the Green Economy – Putting Organic Food & Farming Centre Stage

Room Kopenhagen

The organic movement should provide leadership and pushes for an agreement at Rio+20 that puts food and agriculture on a sustainable and fair path using its expertise and track record as evidence of a viable alternative.

***Moderator**: Markus Arbenz (IFOAM)*
***Speakers**: Dr. Vandana Shiva (Navdanya), Hans Herren (Biovision Foundation for ecological development), Nadia El-Hage Scialabba (FAO), Dr. habil. Ulrich Hoffmann (UNCTAD)*

16:00 - 18:00 The EU Regulation on Organic Food and Farming – Status Quo and Latest Developments

Room St. Petersburg

Evaluation of the latest developments of the EU regulation, and an outlook on upcoming changes, followed by a discussion of organic sector expectations and needs regarding the regulation.

***Moderator:** Marco Schlüter (IFOAM EU Group)*
***Speakers:** Christopher Stopes (IFOAM EU Group), Marian Blom (Bionext), Bavo van den Idsert (Vereniging Biologische Producenten en Handel)*

Thursday, February 16, 2012

10:00 - 11:00 GMOs and the Organic Market – Threats, Policies and Strategies

Room Budapest

Preventing GMO contamination is not only costly, but a real threat to organic producers. What policy changes are at stake in Europe? What strategies make sense?

***Moderator**: Lena Wietheger (IFOAM EU Group)*
***Speakers**: Gebhard Rossmanith (Bingenheimer Saatgut AG), Thomas Radetzki (Mellifera e.V.), Dorota Metera (Bioekspert Sp. c.o.o.), Martin Miersch (Life Food GmbH Taifun Tofuprodukte)*

11:00 - 12:00 The ISO-fication of Certification & Accreditation: Are we on the Wrong Track?

Room Prag

The ISO trend is to focus audits on management systems rather than performance. Stakeholders discuss: does isofication undermine the reliability and objectives of certification & accreditation?

***Moderator**: Joelle Katto-Andrighetto (IFOAM)*
***Speaker**: Paddy Doherty (ISEAL Alliance), Gunnar Rundgren (Grolink), Jan Deane (IOAS)*

11:00 - 12:30 Developing Organic Agriculture's Leadership in Sustainability

Room Istanbul

How to maintain the leadership position? Organic stakeholders' and competitors' strategies leading towards sustainability.

***Moderator**: Markus Arbenz (IFOAM)*
***Speakers**: Prof. Dr. Urs Niggli (FiBL), Volkert Engelsman (EOSTA B.V. Organic Fruits & Vegetables), Helmy Abouleish (Sekem Group), Francis Blake (Soil Association Ltd.), Michael Kuhndt (UNEP/Wuppertal Institute Collaborating Centre on Sustainable Consumption and Production GmbH)*

12:00 - 13:00 The Jungle of Standards: Which Ones are Truly Organic? Which are the Best?

Room Hong Kong

IFOAM launches a new era of organic standard assessments and approval: the IFOAM Family of Standards.

***Moderator**: Joelle Katto-Andrighetto (IFOAM)*
***Speakers:** Dr. Marco Hartmann (Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH), Lara Vivas (Government of Philippines), Matthew Holmes (Canada Organic Trade Association)*

13:00 - 14:00 Organic Aquaculture in Europe - Meeting Challenges of Sustainability!

Room Seoul

***Moderator**: Andrzej Szeremeta (IFOAM EU Group)*
***Speakers**: Dr. Andreas Stamer (FiBL), Nina Baumgartner (ICEA)*

13:00 - 15:00 Global Market Overview
Room Hong Kong

Organic market developments in established & key emerging markets

***Moderator**: Markus Arbenz (IFOAM)*
***Speakers**: Amarjit Sahota (Organic Monitor), Laura Batcha (OTA), Diana Schaack (Agrarmarkt Informations-Gesellschaft mbH (AMI)), Dr. Susanne Padel (The Organic Research Centre), Anais Riffiod (L'Agence BIO), Dr. Burkhard Schaer (Ecozept GbR), Vitoon Panyakul (Green Net Cooperative), Dr. Helga Willer (FiBL)*

14:00 - 15:30 India - Country of the Year: Incredible India - introduction to India
Room Istanbul

***Moderator**: Andre Leu (IFOAM)*
***Speakers**: Asit Tripathy (APEDA), Dr. P.V.S.M. Gouri (APEDA), Dr. Vandana Shiva (Navdanya), Gerald A. Herrmann (Organic Services GmbH), Gunnar Rundgren (Grolink)*

16:00 - 17:00 Unleashing Africa's Organic Export Potential
Room Kopenhagen

Through improved access of African farmers to organic export markets

***Moderator**: Hervé Bouagnimbeck (IFOAM)*
***Speakers**: Gunnar Rundgren (Grolink), Moses Kiggundu Muwanga (NOGAMU), Kuemkwong Siemefo (Bio Tropic GmbH), Hon. Odette Kayitesi (Ministry of Agriculture Animal Resources, Burundi)*

18:00 - 20:00 Turkish Organic Night
IFOAM Booth (Hall 1, Number 240)

Join us in this celebration in anticipation of the 18th IFOAM Organic World Congress, taking place in Turkey in September 2014. Light snacks and drinks will be served. IFOAM thanks its partners and supporters for the events:

Friday, February 17, 2012

10:00 - 11:00 The new EU Rules for Organic Wine Production – Chances and Challenges
Room Kopenhagen

Implementing rules on organic wine production are an important new element of the EU Organic Regulation – what changes can be expected for organic winemakers across Europe?

***Moderator**: Marco Schlüter (IFOAM EU Group)*
***Speakers**: Jean-François Hulot (European Commission), Dr. Uwe Hofmann (Eco-Consult), Cristina Micheloni (Associazione Italiana per l'Agricoltura Biologica AIAB), Come Isambert (Institut Technique de l'Agriculture Biologique ITAB), Diego Granado (Asociación CAAE)*

10:00 - 11:30 The Integration of Social Justice and Fair Trade into Organic Practice
Room Seoul

Social justice is an integral part of Organic Agriculture. As simple as it sounds, however, it is difficult to address social justice and fair trade both at the standards level as well as in the chain of custody at all levels. It is a complex subject, which will be more and more important for the credibility of organic products.

***Moderator**: Thomas Cierpka (IFOAM)*
***Speaker**: Christian Hiß (Regionalwert AG), Vitoon Panyakul (Green Net Cooperative), Alexander Kasterine (ITC)*

11:00 - 12:00 Developing rules for organic animal production in the EU
Room Kopenhagen

EU rules on animal feed, poultry production and wild animals in organic farming are expected to be modified and improved, with harmonisation, respect for animal welfare and organic feed as priority.

***Moderator:** Angela Morell Perez (IFOAM EU Group)*
***Speakers**: Christopher Atkinson (Soil Association Ltd.)*

13:00 - 14:00 CAP Reform – How Policy Support Impacts Organic Markets
Room St. Petersburg

The EU's Common Agricultural Policy (CAP): what does the CAP do for the environment, consumers, organic farmers, processors and retailers?

***Moderator:** Antje Kölling (IFOAM EU Group)*
***Speakers**: Thomas Fertl (Bio Austria), Dr. Nicolas Lampkin (The Organic Research Centre), Jean-François Hulot (European Commission), Anamarija Slabe (Institute for Sustainable Development)*

13:00 - 14:30 Addressing Hunger – What can we do?
Room Seoul

One Billion people, mostly small farmers are food insecure. This workshop will look at how the sector can make its affordable and robust practices more widely available to those who need them most.

***Moderator:** Hans Herren (Biovision)*
***Speaker:** Markus Arbenz (IFOAM), Oscar Ekdahl (World Food Programme WFP), Martien Lankester (Avalon), Bo van Elzakker (Agro Eco Louis Bolk Instituut)*

15:00 - 16:00 Opportunities for Communicating Health Benefits of Organic
Room St. Petersburg

Organic products increase the vitality of people, communities and ecosystems. How can we tell that to consumers?

***Moderator**: Markus Arbenz (IFOAM)*
***Speakers**: Andre Leu (IFOAM), Hanspeter Schmidt (Rechtsanwaltskanzlei Hanspeter Schmidt)*

16:00 - 18:00 Organic Processing and Trade - European Approaches to Handle Residues
Room Kopenhagen

IFOAM EU Group "Guideline for pesticide residue contaminations for international trade in organic" - aims, scope, implementation, further steps and foreseen impact.

***Moderator**: Keith Ball (IFOAM EU Group)*
***Speakers**: Dr. Alexander Beck (AOEL), Sabine von Wirén-Lehr (EOCC), Roland van Marlen (Ariza B.V.), Philip van den Abeele (Hain Celestial Group, Inc.)*

Saturday, February 18, 2012

11:00 - 12:00 Organic Food and Farming in the Post-2013 EU Research Programme
Room Oslo

Working together to strengthen organic food and farming in the next EU farmework program.

***Moderator**: Eduardo Cuoco (IFOAM EU Group),*
***Speaker**: Prof. Dr. Urs Niggli (FiBL), Otto Schmid (FiBL), Dr. Susanne Padel (The Organic Research Centre), Cristina Micheloni (Associazione Italiana per l'Agricoltura Biologica)*

CONTACT

Ecology & Farming is a magazine for all elements of the organic movement - from organic farmers' associations to organizations from the organic food industry and Fair Trade; from research institutions to certifiers; from organic consumers to organic advocates. Ecology & Farming provides information on key issues in the organic sector and offers the space for discussions on the topics of the day. The articles published in Ecology & Farming reflect the opinions of their respective authors and should not be interpreted as an official IFOAM position.

IFOAM The International Federation of Organic Agriculture Movements is the umbrella organization for the organic movement. Established in 1972, IFOAM has over 800 affiliates in more than 100 countries and represents the common interests of the organic movement based on the principles of organic agriculture (ecology, health, fairness and care). IFOAM's mission is to lead, assist and unite the organic movement in its full diversity.

Peter Brul has been working in the organic sector as a farmer, researcher and consultant for more than 35 years. He combines the role of Chief-Editor of Ecology & Farming with his own consultancy.

The Van Westering Groep B.V. have been publishing magazines since 1988. VWG also maintains a focus on ecology through Ekoland, the professional magazine for organic farming in the Netherlands and Belgium and Gezond Bouwen & Wonen, a professional magazine about sustainable building and living.

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Van Hall Larenstein, University of Applied Sciences, focuses with her programmes on nature and environment, human and animal health and responsible entrepreneurship. Combinations of these areas of expertise result in special and challenging bachelor and masters programmes!

IN THE DOMAIN OF INTERNATIONAL DEVELOPMENT VHL OFFERS 2 BACHELORS AND 2 MASTER PROGRAMMES:

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THE MASTER OF AGRICULTURAL PRODUCTION CHAIN MANAGEMENT is for professionals dealing with agricultural production, processing, marketing, quality control and logistics. This programme has two specialisations: Livestock Chains and Horticulture Chains.

THE BACHELOR OF RURAL INNOVATION specialisation Regional Development and Innovation, educates students who will work as junior facilitator and process manager in regional development programmes, worldwide.

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FOUAD LAKHAL
STUDENT FAIR TRADE MANAGEMENT

'In the future I would like to have a positive influence on the less privileged in rural areas, to enable the people in these regions to canalise their experience, knowledge and strengths, so they will be able to manufacture quality products.'

IRENE ASARE from Ghana
ALUMNUS RURAL DEVELOPMENT AND FOOD SECURITY / AGRICULTURE COORDINATOR OF THE GHANA EDUCATIONAL SERVICE

'Not only food production should be considered, but also food accessibility and utilisation. After coming back to Ghana this will help me to consider much more topics than before with regard to the Ghana School Feeding Program.'

SCHOLARSHIPS
Van Hall Larenstein offers students from NFP countries a 'VHL Excellent Student Scholarship' of 3500 euro by enrolment for the next study year 2012-2013 in a bachelor degree programme (check our website for the conditions). For a scholarship for a master programme please visit www.grantfinder.nl for f.i. an NFP-scholarship.

For more information: www.vanhall-larenstein.com

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