



Sino-German Agricultural Centre (DCZ)

中德农业中心



Sino-German Agricultural and Food Update

中德农业与食品通讯

No. 4 January/February 2019



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Foreword

Dear partners and friends of the Sino-German Agricultural Centre,

The year 2019 started with an important event, the Global Forum for Food and Agriculture (GFFA) in Berlin, 17-19 January. This „international conference that focusses on crucial questions concerning the future of the global agri-food industry” was dedicated to the topic “Agriculture Goes Digital – Smart Solutions for Future Farming” this year, and the DCZ was able to contribute to this in specific forums.

This was also possible because the subject of digitalization in agriculture has already been addressed in the DCZ highlight event of 2018, the Sino-German Agricultural Week, 26-28 November, in a special panel and with participation and contributions of a wide range of experts from Germany and China.

Details of both events can be found in this edition of the DCZ Newsletter, along with a “cover story” contribution by two external experts who also participated in the Agricultural Week.

Due to an ever-expanding network, DCZ experts were also invited to contribute to several conferences organized by other institutions or to visits at interesting sites summaries of which you can find here.

Among other agricultural news, on a sad and worrying note, also in this Year of the Pig many regions in China still face the threat and the harsh reality of the African Swine Fever. As long as this continues, we will include the “ASF update” in the “Good to Know” section of our newsletter.

We wish all of you a successful and healthy Year of the Pig and expect a time which promises to be a very active and eventful period for the DCZ. I look forward to our continued cooperation and hope you find this edition of the newsletter informative. Any feedback or suggestions are of course always welcome.

With our best regards

Dr. Jürgen Ritter
Managing Director
Sino-German Agricultural Centre (DCZ)

Cover Story

Digital Agriculture – Challenges and Chances in Germany and China

By Dr. Volkmar Herbst, DCZ consultant, and Dr. Lena Kuhn, Leibniz Institute for Agricultural Development in Transition Economies

The digital transformation in different parts of the industry is also reshaping the food sector and the agricultural production. Digital technology can support farmers in a wide range of their daily tasks from farm management to logistics. It can provide data for decision making and the tools for carrying out precision field operations from fertilizing to plant protection.

The special requirements in agriculture result from the high variation in farm sizes and specialization of production. At the same time, farming depends on natural soil conditions as well as environmental factors that influence production. Digital technology can be useful for collecting data on different parameters like soil nutrients, water availability, plant health, growth status and nutrients supply in order to provide information which can be used in various agricultural practices like preparation of soil, sowing, adding manure and fertilizers, irrigation, harvesting and storage. Each of those practices can again be supported by digital technology when it comes to carry out each operation accurately on the field.

The currently available technologies are airborne or stationary sensors that measure the status of the vegetation and the level and need for variable production input like nitrogen fertilizer, plant protection products or irrigation water. Location-based soil sampling is used to create variable rate application maps of fertilizers for the analysed elements. The communication between sensors, satellites, agricultural machinery and the cloud are increasingly supported by IoT applications (Internet of Things).

However, between data collection and field operations there is a need to include the farmers' experience and local knowledge. Decisions have also to consider the cost of opera-

-tion resources as well as the available equipment.

When it comes to consumer safety, data about production opens up possibilities of increased transparency between the producer, the manufacturer, the trader, the retailer and the consumer.

There is a need to collect sensor and soil data as well as data about farming operations in order to be able to extract valuable information through linking of different datasets and statistics. In machine learning processes, Big Data could be used to constantly improve the capacity of algorithms to analyse data and predict different outcomes that would support farmers' decision-making processes. In reality, data is not shared between the different software providers who offer solutions to the farmers. This might change in the future as the value of the data will increase with the amount of data collected. At the same time, each software provider will work on possibilities to provide better services using the data collected in his applications.

As described below, we compare the use of digitalized tools for supporting plant production in Germany and China. Generally, one can differentiate five different sections of digital technologies in crop production: documentation, logistics and tracking, GPS positioning, fertilization and plant protection using sensors and GPS based soil sampling and fertilizer planning.

German farmers have taken up precision farming and the use of digital tools much earlier than their Chinese counterparts. This is due to the fact that the providers of this technology have started to make solutions available and provided support in Europe many years ago. Bigger farms are often early adapt-

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ers in Germany as they have to deal with larger field sizes where the use of precision farming promises a better return on investment. The good financial situation of many farm holdings also led to a higher investment in technology. However, the tools have to fit into the production process so that a farm business can adapt the technology step by step.

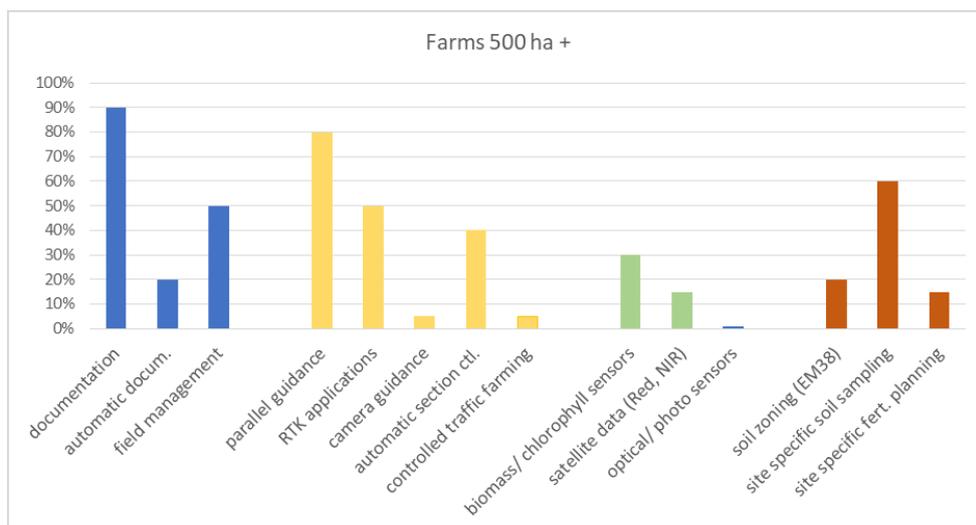
Apart from investment in technology, this also includes a learning process. Once convinced of the benefits, the farmer will replace or upgrade machinery and adapt the whole process of production. A lot of specialized work like the precise application of organic fertilizer and lime are increasingly contracted out as the contracting firms possess the necessary set of tools.

As the diagram below shows, GPS positioning and documentation is widespread, followed by location-based soil sampling (mostly done by contractors) and the use of sensors.

In China, we observe a different development pathway. As mentioned above, the digitalization of agriculture is delayed by challenges like plot size, farm structure and lower financial strength of producers. While in Germany, software and solutions are developed for established processes, Chinese developers therefore often redefine processes and related digital solutions. Examples are for instance the

establishment of online marketplaces for agricultural products, that provide market access to producers even in decentral regions.

Further, new applications are developed to provide the opportunity for quality control and product tracing, which has been in strong demand for a number of food scandals. Remarkable is a wave of cloud solutions and mobile apps, which integrate organizational and logistic processes and provide access to agronomic information, which was not available to many producers in conventional ways. Meanwhile, especially for smallholders there is a distinct gap between available technologies and the financial capacity and capabilities in dealing with new media and digital technologies. Technologies that require high initial investment, in particular land machinery, are currently deployed only in a few selected state and demonstration farms. For the vast majority of agricultural producers, sophisticated machinery will only be accessible via agricultural service providers or technology sharing in the scope of village cooperatives.



Graph: V. Herbst

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Qu Dongyu, Vice Minister of MARA, and Friedrich Wacker, Deputy DG International Cooperation BMEL

(photo: Niu Shenghao)

Retrospect: The 4th Sino-German Agricultural Week

By Liu Yonggong and Eva Sternfeld (DCZ)

The 4th Sino-German Agricultural Week (DCAW) was held from 26 to 28 November 2018 in Beijing. The annual event is jointly sponsored by the Chinese Ministry of Agriculture and Rural Affairs (MARA) and the German Federal Ministry of Food and Agriculture (BMEL). Relevant DCZ partner institutions, i.e. the Foreign Economic Cooperation Center (FECC), Chinese Academy of Agricultural Sciences (CAAS), GFA Consulting Group, IAK Agrar Consulting, Leibniz Institute of Agricultural Development in Transformation Economies (IAMO), jointly organized forums and dialogue activities. All together more than 250 participants, representing Chinese and German governments, Chinese and German universities and research institutions and agricultural and food enterprises as well as public media, attended the three-day forums and dialogues.

The Sino-German Forum on Smart and Digital Rural Development

On 26 November 2018, the “Forum on Smart Agriculture and Digital Rural Development” was held at the Institute for Agricultural Resources and Regional Planning (IARRP) of the Chinese Academy of Agricultural Sciences (CAAS). The opening ceremony was chaired by Prof. Dr. Gong Xifeng, Director General of the International Cooperation Department of CAAS. Prof. Dr. Wu Kongming, Vice President of CAAS, Dr. Axel Wildner, Counsellor for Food and Agriculture of the German Embassy in China, Dr. Li Bo, Deputy Director General of the Department of Science and Technology, MARA, delivered welcome speeches.

Three thematic sessions focussed on “Big Picture – Chances and Challenges of Smart Agriculture and Rural Digitalization”, “State of Research and Technology Development for Smart Farming” and “ICT for Farm and Food Management”. In their keynotes, Prof. He Changchui (former FAO official) and Prof. Cornelia Weltzien (ATB) showed that although China has been a latecomer in agricultural digitalization in recent years, the country caught up at an amazing speed. Common fields of interest were identified such as warning systems for extreme weather situations, plant protection and soil analysis. Speakers



Technology Park AgriGarden (CAAS) (photo: Kubsch)

agreed that digitalization could help to make agriculture and food production more sustainable and environmentally friendly. However, as Prof. Weltzien remarked, “digital technology is neutral”. It therefore depends on society to define what should be achieved and on politics to create relevant incentives and regulations. Two presentations by Bastian Kubsch and Dominik Ewald (“Smart Cloud Farming” and “MonitorFish”) showed the great potential of university supported start-ups.

Following the presentations by German and Chinese experts, a panel moderated by Eva Sternfeld raised the question “Where are we heading to?” The two panellists, Prof. Cornelia Weltzien, Leibniz Institute for Agricultural Engineering and Bioeconomy (ATB), and Prof. Wu Wenbin, Key Laboratory of Agricultural Remote Sensing, IARRP, CAAS, shared their opinions. They discussed how digital agriculture will shape the future of agriculture and in which areas China and Germany could cooperate. It became clear that concern about data ownership is more an issue in Germany than it is in China. Questions from the audience focussed on how digitalization could benefit small farmers and which technical services to small farmers in the process of digitalization can be provided.

As the last activity of the forum, participants visited the National Agriculture Science and Technology Demonstration Park – AgriGarden – of CAAS. As national scientific facility the park serves as research, demonstration and educational platform for modern agricultural technologies such as digital fertilization and



Dr. Ulrich Kleinwechter, BMEL (photo: Niu Shenghao)

irrigation technologies, urban horticulture and aquaponics.

The Sino-German Forum on Environmentally Friendly and Sustainable Livestock Development

As second activity of the Agricultural Week the “Forum on Environmentally Friendly and Sustainable Livestock” was held at Beijing Landmark Hotel on 27 November. The opening session was chaired by Mr. Tang Zhishao, the Co-Director of DCZ and Division Director of FECC. Dr. Wu Lifeng, Division Director of European Cooperation, MARA, and Dr. Ulrich Kleinwechter, Division of International Projects, BMEL, expressed their warm welcome to participants from China and Germany on behalf of MARA and BMEL.

The first session “Environment-Friendly and Sustainable Livestock: Challenges, Opportunities and Policy” was chaired by Prof. Dr. Dong Hongmin, Deputy Director of Agricultural Environmental and Sustainable Development, CAAS. In this session Mr. Xin Guocheng, Director of the Animal Husbandry and Veterinary Session of MARA, reviewed the environmentally friendly animal husbandry development in China. Ms. Gudrun Gallhoff, Minister Counsellor for Health and Food Safety in the Delegation of the European Union, shared EU experiences in sustainable livestock development and animal welfare.

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Mr. Kong Yuan, Division Director in the Ministry of Ecology and Environment, explained recent developments in China's environmental tax policy related to the animal husbandry sector. Director General Yang Zhenhai of the National Animal Husbandry Service elaborated on China's regulatory and policy framework for environmentally friendly and sustainable livestock development in China. The session was concluded by a presentation by Prof. Eberhard Haunhorst, President of the Lower Saxony State Office for Consumer Protection and Food Safety. Prof. Haunhorst elaborated on sustainable development of swine industry from the perspective of animal health.

The second session “Environmentally Friendly Sustainable Livestock Related Technologies and Best Practices” was jointly chaired by Dr. Jürgen Ritter, DCZ Managing Director, and Prof. Liu Yonggong, DCZ Advisor for Business Cooperation. Experts spoke about “Nitrogen recycling in livestock production” (Prof. Hou Yong, China Agricultural University); “Greenhouse gas emission and control in livestock production” (Prof. Dong Haomin, CAAS); Jens van Bebber, Bodenkamp Farm, showed in his presentation how he converted his pig farm into an animal friendly and even more economically sustainable one.

Sino-German Agricultural Cooperation Dialogue and Exchange

Another highlight event of the 4th Sino-German Agricultural Week was the high level dialogue and exchange on 28 November at Beijing Landmark Hotel. About 200 participants attended the event.

The opening session was chaired by Mr. Yang Yi, the Political Advisor of DCZ and Director General of FECC. Dr. Qu Dongyu, Vice Minister of MARA, greeted German and Chinese participants. In his speech, Mr. Qu briefly reviewed the background of the DCZ project. He also highly appreciated the DCZ contribution to promoting the agricultural dialogue and exchange and the achievements. Friedrich Wacker, Deputy Director General of the Inter-



Gudrun Gallhof, Minister Counsellor for Health and Food Safety, EU Delegation (photos: Niu Shenghao)



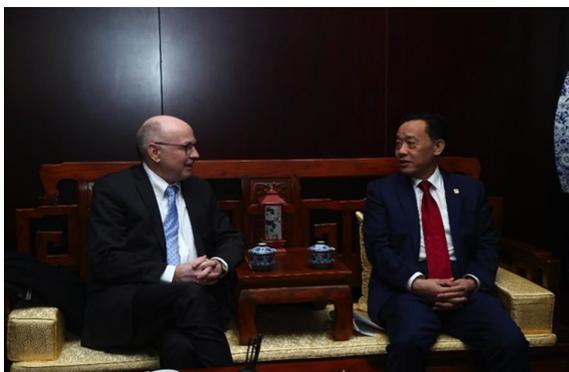
Dong Hongmin (CAAS)



Jens van Bebber, Bodenkamp Farm

national Cooperation Department of BMEL and Political Director of DCZ, welcomed the participants on behalf of BMEL.

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Deputy DG Friedrich Wacker, BMEL, and Vice Minister Qu Dongyu, MARA (photos: Niu Shengyao)

The two managing directors of DCZ, Mr. Tang Zhishao and Dr. Jürgen Ritter, jointly introduced the DCZ project concept and the major achievements and highlighted the priority areas and topics for policy dialogues and exchange in 2019. Dr. Ji Mingfeng, Director General of the Policy Department of MARA and head of the Sustainable Livestock Development delegation to Germany, presented the Chinese policy framework for environment-friendly animal husbandry and inspirations made through the study tour to Germany and the Netherlands in early November 2018.

Dr. Cheng Yu, Research Fellow at the Development Research Center (DRC), reported about experiences from her study visit to Germany in May 2018 and lessons drawn from rural spatial planning, landscape conservation or social services in Germany. Prof. Dr. Cornelia Weltzien presented the technological development of digital agriculture in Germany and summarized the findings and conclusions of the forum on agricultural digitalization. Dr. Lena Kuhn, China Research Group, IAMO, discussed the application of digital technologies in agricultural risk management. The session “Sino-German Agricultural Cooperation Projects” provided a platform to share achievements and experiences of associated projects. Chinese and German project partners of “Project on Animal Breeding and Husbandry in China”, “Sino-German Crop Production and Agricultural Technology Demonstration Park (DCALDP)”, “Sino-German Exchange Program for Young Experts in Agricultural Sector” and Sino-



Prof. Cornelia Weltzien (ATB, Potsdam)

German Seed Industry Dialogues presented their project activities and achievements.

The last session “Sino-German Agri-Food Business Dialogue” provided an opportunity for Chinese and German agricultural and food business partners and service institutions to share their successful stories and experiences in applying modern technologies.

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Photos: E. Sternfeld



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More DCZ Activities

8–10 November 2018, International Conference “Regions on the Rise - Culture and Architecture as Drivers for Rural Development”, Songyang County, Zhejiang

By Eva Sternfeld (DCZ)

On invitation of the Songyang County People’s Government and AEDS Architecture Forum & Network Campus Dr. Eva Sternfeld, DCZ Science Advisor, participated in the International Conference “Regions on the Rise” which was held in Songyang County, Zhejiang province from 8-10 November. About 55 international and 100 Chinese experts were invited to share experiences, strategies and new ideas for the development of rural areas and to bring people back to the countryside.

Songyang county has become a pioneer in the sensitive redevelopment of rural areas. In 2014, the county government started a fruitful cooperation with the architect Xu Tiantian. In recent years Xu Tiantian and her Beijing-based firm DnA Design and Architecture have realized a number of small-scale building projects in eight villages of Songyang, which she defines as “architectural acupuncture” to promote rural vitalization.



cent projects include a brown sugar factory, a tofu factory, a museum for local Hakka culture, a wood addition to an old stone bridge. Using a low-budget, low-tech approach, these architectural interventions create new income opportunities for the local people, promote tourism to the region and provide reasons for villagers to stay in the counties and for migrants to return to their home county.

During the conference, participants shared their experiences and ideas for the “global rural region” by impulse statements and sessions on “Culture and Architecture” and “Ecology, Economy and Architecture”. The sessions were complemented by excursions to selected projects in the region. Read more at <https://www.regionsontherise.org>

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14-16 November 2018, International Technology Transfer Conference (ITTC) – Open Innovation Winning our Future, Beijing

By Zhixin Deng (DCZ)

Invited by the Beijing Municipal Science and Technology Commission, Dr. Zhixin Deng, DCZ Agricultural Advisor, delivered a speech “Preliminary Analysis on Prospects of Sino-German Smart Agriculture Cooperation” in the ITTC 2018 hosted by the Ministry of Science and Technology and the Government of Beijing Municipality and held in the National Convention Center.

ITTC has become the largest event for the international technology transfer professionals in China since 2011 and over 1000 participants came together this time. Many guests including representatives of governmental and research institutions, e.g. Helmholtz Association (Beijing), Chinese Academy of Sciences, and professionals of diverse industries not only from China and Germany presented themselves at ITTC. Dr. Zhixin Deng introduced the DCZ and its activities, compared the institutional, economic and technological frameworks between China and Germany, outlined potential and preferential sectors of Sino-German cooperation in smart agriculture, and put emphasis on a sounder definition of digitalization in agriculture and on differentiation between missional and technical, strategic and tactical goals, both for the public and private sectors. More questions and ideas have been discussed intensively after the presentation with other participants.

15 December 2018, Lecture of Prof. Johannes Sauer (TUM) at IARRP, CAAS

By Eva Sternfeld (DCZ)

In May 2018, by the engagement of DCZ S&T platform, a contact between Professor Sauer, Institute of Agricultural Production and Resource Economics, Technical University of Munich, and Prof. Yin Changbin, Division of Agricultural Resources Utilization of the Institute for Agricultural Resources and Regional Planning of CAAS, has been established. Now this contact bears fruit. Professor Sauer gave a half-day workshop at IARRP on “Agro-Environmental Payment in the EU”.



Photos: E. Sternfeld

15 December 2018, Visit of Beijing Huadu Yukou Poultry

by Eva Sternfeld (DCZ)

On December 15, Eva Sternfeld, Liu Yong-gong (both DCZ), Prof. Johannes Sauer and his assistant Stefan Wimmer (both TU Munich, Institute for Agricultural Production and Resource Economics) visited Beijing Huadu Yukou Poultry in Pingu district Beijing. The headquarters of this company in the premises of the 1975 established former state farm seems not to suggest that this company is a major player in livestock genetics.



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On its website Yukou (<http://www.hdyk.com.cn>) proudly claims about itself as “among the three world leading companies in layer hen breeding” (世界三大蛋鸡育种公司之一). As Ms Liu Aiqiao, Vice President and Executive Director of the Layer Research Institute explained, Yukou meanwhile has overtaken the world’s leading companies in this sector such as the German WE Group and the Dutch Hendrix Group. The company developed four laying hen varieties and one broiler, and with these varieties holds in China a market share of 50 percent. Beside the Beijing headquarters there are 10 branches in a number of provinces of China with about 3,500 employees. In recent years, the company has invested a lot in smart technologies including a service APP developed by ERP-SAP that provides information on disease control and feed stuff etc. for farmers. This APP is available for free and has so far been downloaded by about 100,000 chicken farmers.

17-18 January 2019, DCZ participation in the Global Forum for Food and Agriculture (GFFA) in Berlin

The Global Forum for Food and Agriculture (GFFA), an international conference focusing on the future of global agri-food industry, was held in Berlin from 17 to 19 January 2019. On 18 January, DCZ co-organized two events. The expert panel “Going digital against the drought. New technologies and challenges in their implementation” was organized in cooperation with the German Agribusiness Alliance (GAA) and the Leibniz Institute of Agriculture in Transition Economies (IAMO). Following the opening remarks by the Parliamentary State Secretary of BMEL, Michael Stübgen, and a keynote address by Dr. Lena Kuhn (IAMO) “Digital technologies for Risk Management”, a high-level panel discussion was held. Panellists included Dr. Qu Dongyu, Vice Minister of the Ministry of Agriculture and Rural Affairs, P.R. China, and Dr. Olga Trofimtseva, Vice Minister of the Ministry of Policy and Food of Ukraine. . More at: <https://www.gffa-berlin.de/en/fachpodium-10-2019/>

In a second event, DCZ cooperated with the German Agribusiness Alliance (GAA) in the organization of a “German-Sino Business Roundtable on Digital Transformation in Agribusiness”. The event included opening remarks by Dr. Jens Oeding (CLAAS, Regional President Asia GAA), Michael Stübgen (Parliamentary State Secretary) and Wang Xiaobing (Director of the Information Center of MARA). Dr. Eva Sternfeld (DCZ) gave a presentation on “Digitalization in the agricultural sector in China and Germany” followed by thematic inputs by Jesus Madrazo, Head of Agricultural Affairs and Sustainability, Bayer AG, Division Crop Science, and Eason Li (Win Chain Group on behalf of Alibaba).

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DCZ in the Media

The Sino-German Agricultural Week received a broad coverage by Chinese media:

<https://europe.chinadaily.com.cn/a/201811/29/WS5bff87e4a310eff30328bd95.html>

<https://news.sina.com.cn/o/2018-11-29/doc-ihpevhcm2553287.shtml>

http://www.moa.gov.cn/xw/zwdt/201811/t20181129_6163946.htm

http://www.fecc.agri.cn/xwdt/201811/t20181129_328193.html

http://www.crnews.net/jrgz/sn/109077_20181129031401.html

http://www.agri.cn/V20/ZX/nyyw/201811/t20181129_6292813.htm

<http://www.meat360.cn/news/detail/342377.html>

<http://www.ntv.cn/p/618550.html>

<http://www.ntv.cn/p/618550.html>

The following report appeared on the website of the Federal Ministry for Food and Agriculture (BMEL): 4. Deutsch-Chinesische Agrarwoche ‘Science and Technology for Green Development’ (in German) <https://www.bmel.de/DE/Ministerium/IntZusammenarbeit/BilateraleZusammenarbeit/Texte/deutsch-chinesische-agrarwoche-2019.html>

<https://www.bmel-kooperationsprogramm.de/nachrichten/nachrichten-detailansicht/4-deutsch-chinesische-agrarwoche-science-and-technology-for-green-development/>

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Photos: DBFZ

Good to Know

Energetic utilization of agricultural residues in China and Germany

Report of the 10th Sino-German BioEnergy Annual Conference & Exhibition/Workshop Sino-German Strategic Alliance for Advanced Biomethane Technology, Hangzhou/China, 31 October 2018

by Britt Schumacher (DBFZ)

Dr. Stefan Meierhofer, representative of the Energy Division (524) of the Federal Ministry of Food and Agriculture of Germany (BMEL), demonstrated the potentials for the energy production from agricultural residues in Germany and China in the frame of the 10th Sino-German BioEnergy Annual Conference & Exhibition in Hangzhou (China) on 30 October 2018. The following day, a workshop based on the project “Energetic utilization of agricultural residues in China and Germany” supported by BMEL and coordinated by the Deutsches Biomasseforschungszentrum (DBFZ) was held together with Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH at the same venue. Dr. Britt

Schumacher (DBFZ) introduced the project and its objectives, specified as the identification of barriers for the energetic use of agricultural residues; the development of technical concepts for a better design and a coordinated operation of barn and biogas plant. In addition, the project is characterized by networking activities amongst Chinese and German stakeholders.

The current policy situation of agricultural waste energy utilization in China was explained by Dr. Luo Juan, representative of the Chinese Academy of Agricultural Engineering and Design (CAAE). Dr. Guo Jianbin, associate professor at the China Agriculture University (CAU) in Beijing, illustrated the animal waste treatment practice in China. Dr. Chen Jun (HFUU) examined the research progress at Hefei University (HFUU). CAAE, CAU and HFUU are the Chinese project partners of DBFZ and Leibniz Institute for Agricultural Engineering and Bioeconomy (ATB) from Germany. A discussion of current scientific questions in the biogas sector in China and Germany, led by Dr. Walter Stinner (DBFZ), gave interesting insights at the end of the workshop. A project website is planned to be launched in the first half of 2019 in order to distribute more information about the project and its current findings.

Contact: britt.schumacher@dbfz



List of National-level Modern Agricultural Industry Parks released

A list of 20 “National-level Modern Agricultural Industry Parks” located in several provinces has been released by the Ministry of Finance and MARA on 30 December. These parks shall integrate whole agricultural and food processing chains as well as promote science and high-tech research in the field of food and agriculture.

List of National-level Modern Agricultural Industry Parks released by MARA 农业农村部财政部公布首批国家现代农业产业园名单：http://www.moa.gov.cn/xw/zwdt/201812/t20181230_6165876.htm

1. 四川省眉山市东坡区现代农业产业园 Sichuan Meishan Dongpo District Modern Agriculture Production Park
2. 河南省正阳县现代农业产业园 Henan Zhengyang County Modern Agriculture Production Park
3. 山东省金乡县现代农业产业园 Shandong Jinxiang County Modern Agriculture Production Park
4. 黑龙江省五常市现代农业产业园 Heilongjiang Wuchang City Modern Agriculture Production Park
5. 贵州省水城县现代农业产业园 Guizhou Shuicheng County Modern Agriculture Production Park
6. 福建省安溪县现代农业产业园 Fujian Anxi County Modern Agriculture Production Park
7. 湖北省潜江市现代农业产业园 Hubei Qianjiang City Modern Agriculture Production Park
8. 陕西省洛川县现代农业产业园 Shenxi Luochuan County Modern Agriculture Production Park
9. 吉林省集安市现代农业产业园 Jilin Ji'an City Modern Agriculture Production Park
10. 浙江省慈溪市现代农业产业园 Zhejiang Cixi City Modern Agriculture Production Park
11. 广西壮族自治区来宾市现代农业产业园 Guangxi Autonomous Zhuang Region Laibing City Modern Agriculture Production Park
12. 黑龙江省宁安市现代农业产业园 Heilongjiang Ningan City Modern Agriculture Production Park
13. 江西省信丰县现代农业产业园 Jiangxi Xinfeng County Modern Agriculture Production Park
14. 黑龙江省庆安县现代农业产业园 Heilongjiang Qing'an County Modern Agriculture Production Park
15. 云南省普洱市思茅区现代农业产业园 Yunnan Puer City Simao District Modern Agriculture Production Park
16. 江苏省泗阳县现代农业产业园 Jiangsu Siyang County Modern Agriculture Production Park
17. 内蒙古自治区扎赉特旗现代农业产业园 Inner Mongolia Autonomous Region Zalaite Banner Modern Agriculture Production Park

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18. 湖南省靖州县现代农业产业园
Hunan Jingzhou County Modern Agriculture
Production Park

19. 山东省潍坊市寒亭区现代农业产业
园 Shandong Weifang City Hanting District
Modern Agriculture Production Park

20. 山东省栖霞市现代农业产业园
Shandong Qixia City Modern Agriculture
Production Park

Several provinces have already set up a number of parks at provincial level. Guangdong for example earlier last year announced 15 provincial modern agriculture industry parks and is aiming for 100 parks by 2020. (Source: dimsums, 31 Dec. 2018)

ASF update

Since August 2018 more than 100 cases in 24 provinces have been reported and more than 900,000 pigs have been culled. Latest reports include a very large facility, the state-owned Heilongjiang Asia-Europe Animal Husbandry Company, a modern large-scale swine farm with Danish investment in Mingshui County, Suihua City Heilongjiang City, where end of December 4,686 pigs had been infected and in consequence all remaining 70,000 animals of the farm had to be culled.

<https://www.pigprogress.net/Health/Articles/2019/1/ASF-China-Largest-pig-farm-so-far-infected-377464E/>

Recent outbreaks have been reported from smaller farms in the central Chinese provinces of Gansu and Ningxia.

In December, the General Administration of Customs issued a warning after the virus was found in haemoglobin powder for pig feed produced from pork blood from a slaughterhouse in Tianjin.

<https://www.caixinglobal.com/2019-01-16/more-than-900000-pigs-culled-in-fight-against-deadly-swine-virus-101370704.html>

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Publications

Food Sustainability Index – Germany and China in Comparison

The Economist Intelligence Unit in cooperation with the Barilla Center for Food & Nutrition have recently published the Food Sustainability Index 2018. The FSI ranks 67 countries on food system sustainability across three categories: Food Loss and Waste, Sustainable Agriculture and Nutritional Challenges. More: <http://foodsustainability.eiu.com>

FSI ranks (out of 67) and score (out of 100) for Germany and China:

Domain	Germany	China
Overall Score	16 (71.2)	23 (70.2)
Food Loss and Waste	35 (69.5)	4 (82.4)
Sustainable Agriculture	4 (78.0)	57 (60.7)
Nutritional Challenges	25 (66.0)	21 (67.5)

Categories Rank (core)

Category	Germany	China
Food Loss	26 (75.6)	13 (89.2)
End-user waste	32 (57.3)	23 (68.7)
Water	31 (79.3)	45 (68.5)
Land (land use, biodiversity, human capital)	4 (64.9)	28 (57.0)
Air (GHG emissions)	4 (96.6)	60 (58.4)
Life quality	8 (88.3)	39 (76.9)
Life expectancy	32 (62.1)	21 (66.4)
Dietary patterns	56 (40.2)	23 (56.1)

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More details for country profiles on

<http://foodsustainability.eiu.com/country-profile/cn>

<http://foodsustainability.eiu.com/country-profile/de>

The Report “Fixing food 2018: Best Practices towards the Sustainable Development Goals” can be downloaded at: <http://foodsustainability.eiu.com/wp-content/uploads/sites/34/2016/09/FixingFood2018.pdf>

Organic Food and Farming in China – Top-Down and Bottom-up Ecological Initiatives by Steffanie Scott, Zhenzhong Si,

Theresa Schumilas and Aijuan Chen.
Routledge 2018

A detailed review will follow in one of our upcoming newsletters.

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Calendar – Upcoming Events

Date	Location	Event	Contact
April 2019			
8-9	Beijing, Beijing International Exhibition Center	9 th Forum on Modern Urban Agriculture – Concept, New Form and S&T of Urban Agriculture Development	FUTONG, China Agricultural University
29	Beijing, Yanqing District	Opening International Horticulture Expo Beijing (until October)	http://www.horti-expo2019.org/
May 2019			
14-16	Shanghai	SIAL Asia's largest Food Innovation Exhibition	http://www.sialchina.com/
18-19	Beijing	Beijing International Urban Agricultural S&T Festival	FUTONG China Agricultural University
June 2019			
24-26	Berlin	eCommerce of Food International Conference on Trends and Official Control	www.bvl.bund.de/eCommerce2019
September 2019			
3	Hong Kong	12th International FRUTIC Symposium 2019: Innovations in Pre- and Post-harvest Supply Chain of Fresh Produce	https://frutic.atb-potsdam.de
19-21	Qingdao	Asia Agro-Food Expo 2019	VNU Exhibitions Asia
October 2019			
14-18	Hanoi, Vietnam	2019 International Conference on Chinese Food Culture – Cross-Cultural Interaction and Chinese Foodways in Southeast Asia. Vietnam National Institute of Culture and Arts Studies	http://foodconference2019.fcdc.org.tw/enaspx/default.aspx

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Imprint

This issue was compiled by the international DCZ team. For enquiries and subscription please send an email to info-dcz@iakleipzig.de

Any news about upcoming events and conferences to share? Please send your information to e.sternfeld@iakleipzig.de

Address: Room 724-27, Zhong Ou Hotel, 55 Nongzhang Beilu, Chaoyang District, 100125 Beijing PR China



地 址：北京市朝阳区农展北路55号中欧宾馆724室
(麦子店街，近盛福大厦)

邮 编：100125

电 话：+86 (0) 10-6500 0958

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