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German Bundestag



Sino-German Agricultural Centre, 2nd Phase



Virtual Study Tour

“Animal Manure Treatment and Utilization in Germany”

Module 1

07.04.2021 – 08.04.2021

Organized in cooperation with



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In partnership with



Organized by: IAK Agrar Consulting GmbH



and IEDA, CAAS



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Module 1: Environmental and Administrative Aspects (Fertilizing, Water Pollution and Greenhouse Gases)

Day 1, 07.04.2021: 14:00-18:00 (Beijing time), 8:00-12:00 (German time)

Part 1 – Water and Soil Protection

Day 1 part 1: Water and Soil Protection		
Time	Topic	Speaker
14:00 – 14:05 (8:00 – 8:05)	Technical advice for participants	Moderation: Eva Sternfeld (DCZ)
14:05 – 14:20 (8:05 – 8:20)	Opening	MARA, CAAS, DCZ, NAHS, Sino-German Animal Breeding and Husbandry Project
14:20 – 14:40 (8:20 – 8:40)	Introduction: Environmental and administrative aspects of animal manure utilization in China in China	Dong Hongmin (CAAS)
14:40 – 15:00 (8:40 – 9:00)	Water and soil protection: European nitrate guideline and German regulations (fertilizer act)	Ms Svenja Fuhrmann, Federal Ministry of Food and Agriculture (BMEL) Dep. 624 International Projects, Twinning
15:00 – 15:30 (9:00 – 9:30)	Correlation of regional animal husbandry intensity, precipitation, horticulture intensity on nitrates contents in ground water - Adaptation strategies to reduced N-fertilization in arable farming	Frank Augsten, head of department, Thuringian office for Agriculture and Rural Area
15:30 – 15:50 (9:30 – 9:50)	Water protection and organic fertilization	Christine von Buttlar, IGLU GmbH Göttingen
15:50 – 16:20 (9:50 – 10:20)	Q&A	Moderation: Eva Sternfeld
16:20 – 16:40 (10:20 – 10:40)	Break	

Day 1, 07.04.2021: 14:00-18:00 (Beijing time), 8:00-12:00 (German time)

Part 2 – Greenhouse gases from stable systems – innovative mitigation technologies in stable systems

Day 1 part 2: Greenhouse gases from stable systems – innovative mitigation technologies in stable systems		
Time	Topic	Speaker
16:40 – 17:10 (10:40 – 11:10)	Greenhouse gas emissions from barn to field. Avoiding of ammonia emissions from stable to field, sensitive points, processes and measures	Barbara Amon, Leibniz-Institute for Agricultural Engineering and Bioeconomy (ATB)
17:10 – 17:30 (11:10 – 11:30)	N ₂ O production in biotrickling filters for odorants removal in livestock production systems	Dezhao Liu, Zhejiang University
17:30 – 18:00 (11:30 – 12:00)	Adaptation strategies and technologies for lower emission and exhaust air cleaning systems in pig husbandry	Jörg Oldenburg, Ingenieurbüro Oldenburg
18:00 – 18:30 (12:00 – 12:30)	Q&A	Moderation: Eva Sternfeld
	End of day	

Day 2, 08.04.2021:

Adaptation and Mitigation Strategies - Fertilization with Organic Fertilizers (with video demonstration), 14:00 -18:15 (Beijing time), 8:00 – 12:15 (German time)

Day 2: Adaptation and Mitigation Strategies		
Time	Topic	Speaker
	Greenhouse Gases continued	
14:00 – 14:10 (8:00 – 8:10)	Opening, introduction	Moderation: Eva Sternfeld
14:10 – 14:30 (8:10 – 8:30)	Mitigation of CH ₄ , NH ₃ and N ₂ O emissions by anaerobic digestion and closed digestate storage	Walter Stinner, German Biomass Research Centre (DBFZ)
14:30 – 14:50 (8:30 – 8:50)	Avoiding of emissions in swine stable systems/ Low emission swine husbandry	Helmut Döhler, Döhler Agrar GmbH
14:50 – 15:10 (8:50 – 9:10)	The PigT - Separation of faeces and urine immediately after defecation to avoid ammonia emissions in pig farms	Dennis Engelking, Big Dutchman
15:10 – 15:20 (9:10 – 9:20)	Principles and advantages of the Bedding Recovery Unit (BRU) in cattle husbandry	Klaus Ferk, Bauer/FAN
15:20 – 15:30 (9:20 – 9:30)	SmartDairyNutrition (SDN) for lower emission in cattle feeding and husbandry	Jochen Mentschel, Sano
15:30 – 15:50 (9:30 – 9:50)	Q&A	Moderation: Eva Sternfeld
15:50 – 16:20 (9:40 – 10:20)	Break	
	Fertilization with organic fertilizers	
16:20 – 16:40 (10:20 - 10:40)	Humus and nutrient effects of organic fertilizers	Holger Bessler (Humboldt-University Berlin)
16:40 – 17:00 (10:40 – 11:00)	Measuring the deep tillage and fermentation residue impact on carbon and nitrogen dynamics of eroded soils by new approaches	Prof. Jürgen Augustin, Leibniz Institute for Agriculture Landscape Research (ZALF)
17:00 – 17:20 (11:00 – 11:20)	Effect of strip-till fertilization with organic fertilizers	Peter Müller, AgUmenda, Müller & Schliephake
17:20 – 17:40 (11:20 – 11:40)	Q&A	
17:40 – 17:50 (11:40 – 11:50)	Slurry transport, spreading and nutrient measurement technologies	Sebastian Smija, Fliegl
17:40 – 17:50 (11:40 – 11:50)	Innovations in manure applications by piping	FA Kleuter with video dem.
17:50 – 18:00 (11:50 – 12:00)	Slurry distribution and incorporation technologies	Klaus Ferk, Bauer/FAN
18:00 – 18:15 (12:00 – 12:15)	Concluding remarks, outline for upcoming seminars	Moderation: Eva Sternfeld
	End of day	