

Scientific Program

WEDNESDAY, 2 DECEMBER 2015

Visit to Fertikal

Fertikal is manufacturer and seller of organic and organo-mineral NPK fertilizers worldwide. Fertikal processes Flemish (Belgian) and Dutch manure into composted soil conditioner and granulated organic fertilizer for both agricultural and horticultural markets. Fertikal's offices and production site are located in the center of the Port of Antwerp, an obvious logistical advantage in terms of transport and accessibility. The production plant has been completely modernized in 2014 and is one of the largest in Europe.

Next to this visit, **the NIR(Near InfraRed)-system** will be demonstrated. This mobile system offers the farmer the possibility to register on-line the composition of manure in the slurry tank, this by using a NIR-sensor. This concept has been picked up by the Dutch company 'Vlastuin Group' and will be demonstrated during the visit on December 2. Today the Dutch government investigates if Near InfraRed could be used as registration system for manure transports.

PROGRAMME

12h40 Meeting point at 'Poel Ghent', Ghent

13h Departure by bus

14h Arrival at company Fertikal

14h10 Introduction by the Flemish Coordination Centre Manure Processing (VCM)

14h25 GROUP 1 – visit of the production site of Fertikal

focus on the production of granulated organic fertilizers for the export market

GROUP 2 – demonstration of the NIR-system by Vlastuin Group

15h15 GROUP 2 – visit of the production site of Fertikal

GROUP 1 – demonstration of the NIR-system by Vlastuin Group

16h Drink offered by our golden sponsor Best Hall

16h30 Return to Ghent by bus

17h30 Arrival at Ghent (Poel Ghent)

THURSDAY, 3 DECEMBER 2015

Chairman Erik Meers, Ghent University, BE

08h00 – 09h00	Registration and welcome coffee	'Refter', Ground floor
09h00-09h40	Official Opening of ManuREsource 2015 & Welcome Addresses Liesbeth Verheyen, president of VCM Joke Schauvliege, Flemish Minister for environment, nature & culture	'Refter', Ground floor
09h40-10h10	"Manure management in the EU member states" Francesco Presicce, Head of the Nitrates Sector, Unit for Agriculture, Forest, Soil, DG Environment, European Commission	'Refter', Ground floor
10h10-10h40	Coffee break and poster session	'Kapittelzaal', Ground floor
10h40-12h15	Panel debate with EU Member States representatives: Manure management in the EU Franz Jansen-Minßen, Agricultural Chamber of Niedersachsen, Germany Kevin Grauwels, the Flemish Land Agence, Belgium (Flanders) Charles Hendrickx, Attaché Department of Environment and water – Agricultural-environmental integration, Belgium (Wallonia) John Williams, ADAS UK, United Kingdom Harm Smit, Senior staff member Manure and Environment, Ministry of Economic affairs, Netherlands Marja-Liisa Tapio-Biström, Ministerial Adviser, Ministry of Agriculture and Forestry, Finland With presence of EU representatives Francesco Presicce, Head of the Nitrates Sector - Unit for Agriculture, Forest, Soil, DG Environment, European Commission. Moderation by Sonja Van Renssen, freelance climate, energy and environment journalist	'Refter', Ground floor
12h15-13h45	Lunch and poster session With closed lunch meeting – "establishment of European platform on manure management" - by invitation	'Kapittelzaal', Ground floor
13h45 – 14h15	Flash presentations by innovative manure processing/construction companies Best-Hall, "Warehousing in fertilizers <a new green way>", Paul Goris D-Tec, Jasper Lentjes, Vlastuin Group EU-project 'Digesmart', Denis Dewilde, Detricon Triple-T, Amir Zalel	'Refter', Ground floor

14h15 – 15h30 Parallel sessions

Room "Priorzaal", 1st Floor	Room "rector Vermeylen", 2nd Floor	Room "Oude Infirmerie", 2nd Floor	Room "Rector Blancquart", 2nd Floor
Session T1 - Fertilising with manure & digestate treatment products Chair: Bart Vandecasteele, ILVO, BE	Session T2 - Product innovations and new markets for manure & digestate Chair: Bart Van der Straeten, Flemish government, department Agriculture and Fishery, BE	Session T4 - Process innovations in manure & digestate treatment Chair: Oscar Schoumans Wageningen University, NL	Session T5 – Energy production from manure Chair: August Bonmati GIRO Technical Centre Barcelona, ES
Thermal treatment of separated manure digestate solids: effects of acidification and drying on nitrogen loss and fertilizer replacement value Jensen, L.S., University of Copenhagen, DK	Can liquid fraction of pig manure be a profitable N-fertilizer? Anniciaert, B., Ghent University, BE	Improved low-tech separation technique – the 'low nutrient' press' Bollaert, M., BE	Added value of manure (co-) digestion in light of GHG emission abatement beyond COP21 <i>Invited speaker</i> Pfluger, S., European Biogas Association (EBA)
Use of green nitrogen fertilizers as substitute for fossil based synthetic N fertilizer: a field scale assessment De Dobbelaere, A., Inagro, BE	A scenario-based assessment model for the local excess potential of digestate and manure Heberlein, M., Fraunhofer Institute UMSICHT, DE	Total nitrogen reduction in agricultural wastewater by passive aeration Zalel, A., Triple-T, IL	Effects of controlled hydrodynamic cavitation on anaerobic digestion of livestock manure Piccinini, S., CRPA, IT
From the anaerobic digestion to renewable Fertilizers: a virtuous example of circular economy and low impact agriculture Adani, F., University of Milan, IT	Liberalized international trade of raw nutrients of animal origin, a road ahead to a sustainable European nutrient management? Bral, A., Ghent University, BE	Ammonia stripping from three different digested slurries using a simplified technique Perazzolo, F., University of Milan, IT	Economic and performance impacts of co-digestion of dairy manure and non-farm feedstocks on medium sized dairy farms in the US Kirk, D., Michigan State University, US

A more efficient and sustainable fertilization through recycling manure-derived Phosphorus Robles Aguilera, A., Forschungszentrum Jülich GmbH, Institute für Bio- und Geowissenschaften, GE	Fate of nitrogen and phosphorus following thermal hydrolysis and hydrothermal carbonization of swine manure with alkali, mineral and organic acids Ekpo, U., University of Leeds, UK	Kapittelzaal, Ground floor
15h30-16h00 Coffee break and poster session		
16h00-17h15 Parallel sessions		
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Blending biobased fertilizers to satisfy fertilization crop requirements Tur-Cardona, J., Ghent University, BE	Developing normative manure system for Finland - opportunities and challenges Luostarinen, S., Natural Resources Institute Finland Luke, FI	ECOFFERM – The Circular Farm J.G. de Wilt, InnovationNetwork, NL
Manufacturing high quality-manure based fertilizers for a sustainable agriculture Planques, B., Italpollina SpA, IT	Nitrogen excretion factors of livestock in the European Union Velthof, G.L., Wageningen University, NL	Innovative manure treatment plant in Northern Italy for compensating regional livestock manure nutrients Döhler, H., DöhlerAgrar, DE
The fertilizer replacement value of processed digestate products vanden Nest, T., ILVO, BE	Farmer attitudes and potential barriers to the use of new organic fertilisers Jensen, L.S., University of Copenhagen, DK	Pig slurry treatment plant based on energy recovery by anaerobic digestion to support nitrogen surplus removal by SHARON process Moscatelli, G., CRPA, IT

	Heavy metal concentration in manure and digestate: a simulation model Sigurnjak, I., Ghent University, BE	Nutrient recovery technologies for dairy manure - opportunities and challenges Kirk, D., Michigan State University, US
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17h45-19h00 **Reception at Ghent City Hall**

20h00 **Conference dinner (optional)**

FRIDAY 4 DECEMBER 2015

Chairman Philippe Tavernier, POM West-Flanders, BE

08h30-09h00 Opening with welcome coffee

09h00-10h00 **Plenary session – keynote lectures “Organic fertilisers in demand – case studies”**

Not all countries (in or outside the EU) are confronted with a high nutrient pressure, in some regions there is even a lack of nutrients resulting in an impoverishment of the soil. In this session we want to focus on the demand for organic fertilisers.

A. Kovacs, assistant professor/research farm leader, Faculty of Economics and Social Sciences, Szent István University, HU

T. Jadczyszyn, head of Department of Plant Nutrition and Fertilisation, Institute of Soil and Plant Cultivation, State Reach University, PL

K. Gustafsson, Agroväst, SE

‘Refter’, Ground floor

10h00-11h00 Coffee break and poster session

‘Kapittelzaal’, Ground floor

Room "Priorzaal", 1 st Floor	Room "rector Vermeylen", 2 nd Floor	Room "Oude Infirmerie", 2 nd Floor	Room "Rector Blancquart", 2 nd Floor
Session T5 - Energy production from manure Chair: Jeroen Buysse Ghent University, BE	Session T1 - Fertilising with manure & digestate treatment products Chair: Gerard Velthof, University of Wageningen, NL	Session T4 - Process innovations in manure & digestate treatment Chair: Fabrizio Adani University of Milan, IT	Session T3 – Environmental aspects of manure and digestate treatment Chair: Sergio Piccinini CRPA, IT
Heat recovery potential from the biological treatment of the thin fraction of manure Corbala-Robles, L., Ghent University, BE	Valorize the agronomic value of processed animal manure in Flanders: a field trial in cauliflower Coopman, F., Inagro, BE	Why is acidification a success only in Denmark? Jacobsen, B.H., University of Copenhagen, DK	Impact of field acidification and application methods on ammonia emissions, yield and nitrogen efficiency of organic liquid manures Wagner, J., Leuphana University of Lüneburg, DE
Small scale pig manure digestion (190 kW_e): a testimony on the practical and economic implementation at a manure treatment installation Bamelis, L., DLV Innovision, BE	Application of biowaste digestates: impacts on growth, biomass, yield components and leaf area of Avena sativa L. and Brassica napus L. in pots Ross, C.-L., Institute of Agricultural and Urban Ecological Projects, DE	Biological acidification of pig slurry for phosphorus recovery as struvite Piveteau, S., IRSTEA, FR	Ammonia and greenhouse gas emissions from air scrubbers at pig housing facilities in Flanders Van der Heyden, C., Ghent University/ILVO, BE
Improving anaerobic digestion stability, effluent quality and ammonia recovering with a microbial electrolysis cell integrated system Cerrillo, M., IRTA, ES	Composting of digestate solid fraction Vanden Nest, T., ILVO, BE	Recovery of phosphorus (P) from pig slurry Schoumans, O.F., Wageningen University, NL	Preliminary assessment of gaseous emission from the storage of acidified raw and co-digested solid fractions Gioelli, F., University of Torino (DiSAFA), IT

		Phosphorus recovery from pig slurry and digestate in Flanders Bilbao, J., Fraunhofer Institute IGB, DE	Solid-liquid separation treatments to reduce phosphorus accumulation in the soil Parera Pous, J., Agriculture, Livestock, Fisheries and Food Department of Generalitat of Catalonia, ES
12h15-13h30	Lunch and poster session		'Kapittelzaal', Ground floor
13h30-14h30	Parallel sessions		

Towards a zero-cost-biorefinery for manure and digestate treatment using a new model library and global sensitivity analyses Vaneekhaute, C. Université Laval, CA/Ghent University, BE	Manure processing should start with a characterisation of the desired end products Postma, R., Nutrient Management Institute, NL	Storage conditions for cattle farmyard manure on the field: limiting nutrient losses and optimizing fertilizer value Viaene, J., ILVO, BE
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14h30-15h00	Plenary session - ManuREsource poster Award 2015 <i>With presentation of the selection of the 3 best posters</i> <i>Awarding of the poster price by George Hofman, chairman of the poster jury</i>	'Refter', Ground floor
15h00-15h30	Plenary session – closing speech Jeanet Brandsma, COPA-COGECA	'Refter', Ground floor
15h30-15h45	Closing speech by the organization	'Kapittelzaal', Ground floor
15h45-17h00	Closing drink	'Kapittelzaal', Ground floor

Plenary policy debate

Members of the policy debate:

- Kevin Grauwels, the Flemish Land Agency, Belgium (Flanders)
- Charles Hendrickx, Attaché Department of Environment and water – Agricultural-environmental integration Belgium (Wallonia)
- Franz Jansen-Minßen, Agricultural Chamber of Niedersachsen, Germany
- Marja-Liisa Tapiola-Biström, Ministerial Adviser, Ministry of Agriculture and Forestry, Finland
- Harm Smit, Senior staff member Manure and Environment, Ministry of Economic affairs, Netherlands
- John Williams, ADAS UK, United Kingdom

With presence of EU representatives Francesco Presicce, Head of the Nitrates Sector - Unit for Agriculture, Forest, Soil, DG Environment, European Commission.

Moderation by Sonja Van Renssen, freelance climate, energy and environment journalist

Closed lunch meeting – “Establishment of European platform on manure management”

Participation by invitation