

PARTICIPATION GRATUITE

(Repas de midi non inclus)

Afin de favoriser l'organisation, merci de vous inscrire pour le
Mercredi 10 Novembre 2010

Les présentations marquées d'un astérisque () seront données en anglais. Une traduction sera assurée pour la séance de questions/réponses.*

Adresse

ULg, Gembloux Agro-Bio Tech

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RESERVATION EN LIGNE

http://www.fsagx.ac.be/ha/santitation_day_inscription.php

VISITES TECHNIQUES

1. **Filtre végétalisé collectif à écoulement horizontal** pour **des eaux usées domestiques**, dimensionné pour **160 EH**, Genappe
2. **Filtre végétalisé à écoulement horizontal** pour **une habitation unifamiliale**, dimensionnés pour **5 EH**, Mettet

PROGRAMME



SANITATION DAY

2^{ème} Edition

TREATMENT WETLANDS

L'EPURATION PAR LES FILTRES VEGETALISES

**18 Novembre, Gembloux,
BELGIQUE**

Coordination: Dimitri Xanthoulis, Nat Fonder

Plan d'accès vers Gembloux

[http://www.fsagx.ac.be/images/stories/pdf/plans/
plan_acces_grands_axes.pdf](http://www.fsagx.ac.be/images/stories/pdf/plans/plan_acces_grands_axes.pdf)



PROGRAMME

Jeudi 18 Novembre 2010 - Auditoire TOPO 1

8:30: Accueil des participants	
9:00 – 9:10	Accueil des participants par le Vice-Recteur de l'ULg, Gembloux Agro-Bio Tech, Prof E. Haubruge et Prof. D. Xanthoulis
Séminaire : Présentation générale des filtres végétalisés pour le traitement des eaux	
9:10 – 9:25	Présentation des différents types, classification et terminologie Ir Nat Fonder, Epuvaleau, Belgique
9:25 – 9:45	* Role of Plants and Botanical aspects with TW Prof. Hans Brix, Aarhus University, Denmark
9:45 – 10:05	* Hydraulic aspects and clogging in TW Dr Paul Knowles, Aston University, United Kingdom
10:05 – 10:25	La problématique du phosphore et les options de traitement Dr Florent Chazarenc, Ecole des mines de Nantes, France
10:25 – 10:40	Pause café
Séminaire : Applications des filtres végétalisés en Europe et dans le monde	
10:40 – 11:00	* Application of TW for Industrial Wastewater Eng. Scott Wallace, P.E. Naturally Wallace Consulting LLC, USA
11:00 – 11:20	* Application of Treatment Wetlands in Africa Dr Hans van Brugge, UNESCO-IHE, The Netherlands
11:20– 11:40	* Application with Vertical Flow TW systems in The Netherlands Eng. Frank Van Dien, ECOFYT Constructed Wetlands, The Netherlands
11:40 – 12:00	Les filtres verticaux avec les eaux usées brutes, exemples en France Ir Dirk Esser, SINT, France
12:00 –12:20	Le filtre horizontal EPUVAL en Wallonie Ir Marc Wauthélet, EPUVALEAU, BELGIQUE
12:30 – 17:00 : Repas et visites techniques	

Vendredi 19 Novembre 2010 - Auditoire GP

16:00 – 17:30	Hydraulic and Removal Efficiencies of Horizontal Flow TWs Défense publique de doctorat, N.Fonder, ULg, Gx Agro-Bio tech
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ACCES AUX AUDITOIRES : http://www.fsagx.ac.be/ha/pdf/plan_auditoires.pdf

LES ORATEURS

Hans Brix, Aarhus University, Denmark

Hans is a professor of the Department of Biological Sciences in Denmark. He is specialised in freshwater ecology, wetland ecology and management, and the implementation of wetland systems for water pollution control. Focus is on the eco-physiology of plants in aquatic ecosystems and biogeochemical cycling in wetland ecosystems. The research is currently focused on assessing eco-physiological characteristics of invasive species and invasive biology. Applied aspects of the research involve the use of natural and constructed wetlands for the treatment of various kinds of polluted.

Paul Knowles, Aston University, UK Paul has been studying the hydraulics of Horizontal Sub-surface Flow Constructed Wetlands in conjunction with Severn Trent Water and Aston University. His main focus has considered how and why these beds clog, and what the effect on flow is. Paul's recent publications have regarded technologies which can be applied in the field to assess the extent of clogging, such as in situ Permeameters and Nuclear Magnetic Resonance Probes.

Scott Wallace, Naturally Wallace Consulting, LLC, USA Scott has been active in the wetland design field since 1988. He has designed over 200 wetland treatment systems, ranging in size from single home projects to industrial applications in excess of 30,000 m³/d. Scott was the co-author (with Bob Kadlec) of *Treatment Wetlands, Second Edition*. Scott was also the co-author (with Bob Knight) of *Small-Scale Constructed Wetland Treatment Systems* on behalf of the Water Environment Research Foundation (WERF). Scott has been active in research and development and holds 5 patents. He is a Registered Professional Engineer in 23 states, and consults on a wide variety of projects around the world.

Florent Chazarenc, Ecole des mines de Nantes, France Florent is Eng. and PhD graduated in Environmental Engineering (France, 1999 and 2003) and has a Post-Doc from Polytechnique Montreal (2007) Since 2007 he is assistant Professor at the Ecole des mines of Nantes (France) in Energetics and Environmental Engineering department. He is a specialist on chemical processes to optimise pollutants removal by TW under cold climates. He works on the valorisation of by-products from steel industry as media active for phosphorus removal.

Hans van Brugge, UNESCO-IHE, Delft, The Netherlands

Long time ago Hans started his career in Africa, where he worked at The University of Dar es Salaam in Tanzania, establishing a microbiology unit. After this job he started to work for UNESCO-IHE, Institute for Water Education, but his heart never left Africa. He has been working in the field of constructed wetlands for wastewater treatment and has been supervising several PhD students on this topic in Uganda and Kenya. At this moment he is active in the transfer of part of the educational activities of UNESCO-IHE to Egerton University in Kenya and he is responsible for a short course and an online course about constructed wetlands.

Frank van Dien, ECOFYT, The Netherlands Frank is specialized in designing and building constructed wetlands since 1994. He has made over 400 designs of which 56 have been realized by his firm ECOFYT. Several others have been built by other parties in different countries. Especially the more complex situations appeal to him and that has resulted in rather outstanding projects as the "geWOONboot" (a more or less self-supplying, eco-efficient houseboat), the "Bussummer Watertoren" (the most sustainable office in the Netherlands) as well as many other projects that are to serve as examples of sustainable building. Nowadays Cradle to Cradle is the biggest challenge.

Dirk Esser, SINT, France Dirk has founded and directed SINT since 1991; which is today split into EPURNATURE and SINBIO. SINT was the first to commercially introduce TW systems in France, and has designed over 500 all over France, including overseas territories Dirk has deposed five patents, including one for a hydraulic feeding device which is used on all plants designed by SINT fed by gravity flow and has been exported abroad. SINT has acquired recognized competence in the fields of sewage sludge treatment with TW, of storm water management and of the management of the quality of standing waters.