



WACAU-2014, Israel
International Workshop on Agricultural Coal Ash Uses

27 – 29 May 2014

Agricultural Center, Bet Dagan

May 27th 2014

Agricultural Uses of Coal Ash: Strategy, Agronomy, Environment and Health
Chaired by Uri Mingelgrin

08:30 – 09:00 **Registration, light refreshments**

09:00 – 09:15 [Opening Remarks](#) – Omri Lulav, NCAB, Israel

09:15 – 09:25 [Workshop's Objectives](#) – Uri Mingelgrin (Emeritus), Volcani Center. Israel

09:25 – 09:30 *Greetings* – Ori Levi, South Judea Growers

Chairperson: Yoram Avnimelech (Emeritus), Technion, Israel

09:30 – 09:55 [Israeli Coal Ash Characterization](#) – [Ariel Metzger](#), Israel Electric Corporation (IEC), Israel [[presentation](#)]

09:55 – 10:20 [Market Opportunities for Coal Ash within Australian Agriculture](#) – [Jane Aiken](#), Ash Development Association of Australia (ADAA), Australia [[presentation](#)]

10:20 – 10:45 [Use of Fly Ash in Agriculture: Indian Scenario](#) – [Vimal Kumar](#), C-Farm, New Delhi, India [[presentation](#)]

10:45 – 11:10 [Utilization of Alkaline Coal Ash in the Treatment of Municipal Sludge - Producing Agricultural Soil Amender](#) – [Robert S. Reimers](#), Tulane University, Louisiana, USA [[presentation](#)]

11:10 – 11:30 **Break**

Chairperson: Yossi Inbar, former Director General Ministry of Environmental Protection, Israel

11:30 – 11:55 [Reclaiming the Agricultural Potential of Degraded Soils with Class F Fly Ash](#) – [Wayne F. Truter](#), University of Pretoria, Pretoria, South Africa [[presentation](#)]

11:55 – 12:20 [Agricultural Use of Fly Ash: Expected Benefits and Consequences](#) – [Christos Tsadilas](#), Hellenic Agricultural Organization, Greece [[presentation](#)]

12:20 – 12:45 [The Use of Bottom-Ash Coal-Cinder as a Major Component in Growing Media](#) – [Yona Chen](#) (Emeritus), Hebrew University Jerusalem, Israel [[presentation](#)]

12:45 – 13:10 [Use of Coal Ash to Stabilize Sandy Soil Surfaces by Enhancing Development of Biogenic Crusts](#) – [Eli Zaady](#), Gilat Center, Israel [[presentation](#)]

13:10 – 14:10 **Lunch**

Chairperson: David S. Kosson, Vanderbilt University, Tennessee, USA

14:10 – 14:35 [Benefits and Risks of the Use of Fly Ash in Agricultural Applications](#) – [Pinchas Fine](#), Volcani Center. Israel [[presentation](#)]

14:35 – 15:00 [Risk Assessment of Agricultural Applications of Coal Ash](#) – [Rami Keren](#) (Emeritus), Volcani Center, Israel [[presentation](#)]

15:00 – 15:25 [Radiation Exposure from Radionuclides of Natural Origin in Agricultural Uses of Coal Ash](#) – [Gustavo Haquin](#), Soreq-NRC, Israel [[presentation](#)]

15:25 – 15:45 [Innovative Uses and Ideas for Research Collaboration](#) – open session

15:45 – 16:05 [Panel's comments: Questions to be considered](#) – Uri Mingelgrin

Users: Avraham Zilberman, Agriculture Ministry; Arie Bosak, South Judea Growers
Regulators: Yeshayahu Baror, Environmental Protection Ministry; Shay Reicher, Health Ministry

16:05 – 16:55 *Discussion*

16:55 – 17:00 *Summary of conclusions* – Uri Mingelgrin



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Shafdan, Revadim
May 28th 2014

N-Viro, Professional Tour: Producing Facility & Field Observations
Chaired by Pinchas Fine

- 08:30 – 08:45** *Registration, light refreshments, Igudan Visitor Center, Shafdan*
- 08:45 – 08:50 *Opening Remarks* – Pinchas Fine, Volcani Center
- 08:50 – 09:00 *Shafdan Plant* – Yuval Sela, Igudan
- 09:00 – 09:10 *Dan-Viro Plant: Process and Product* – Meir Carmel, Dan Viro [[presentation](#)]
- 09:10 – 09:30 *Driven Tour to Shafdan Plant* – Yuval Sela
- 09:30 – 10:15 *Tour to Dan-Viro Plant* – Lior Abukasis, Dan Viro
- 10:15 – 11:00** *Ride to Revadim Field Experiments*
- 11:00 – 12:00 *Revadim Field Experiments* – Guides: Pinchas Fine, Volcani Center; Arie Bosak. South Judea Growers
- 12:00 – 12:30** *Ride to South Judea Growers' Office; light refreshments*
- 12:30 – 12:50 *N-Viro Field Experiments and Observations* – Pinchas Fine, Volcani Center
- 12:50 – 13:10 *Use of N-Viro as an Additive to Soil for Agricultural Applications in Practice* – Arie Bosak, South Judea Growers [[presentation](#)]
- 13:10 – 13:30** *Ride to lunch*
- 13:30 – 14:30** *Lunch, Kibbutz Revadim*
- 14:30 – 17:30** *Tour to archeological sites, Judea Plain*



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NCAB Office, Tel Aviv
May 29th 2014

**Environmental Assessment of Agricultural Coal Ash Uses
Using LEAF – Leaching Environmental Assessment Framework**

**Co-chaired by
David S. Kosson & Hans A. van der Sloot**

08:30 – 08:45 **Registration, light refreshments**

08:45 – 09:00 *Opening Remarks* – Nadya Teutsch, GSI, Israel

09:00 – 09:30 *Use of Chemical Speciation and Mass Transport Models in Leaching Assessment* – [Hans van der Sloot](#), HvdS Consultancy, The Netherlands [[presentation](#)]

09:30 – 10:00 *Laboratory to Field Relationships and Recommendations for Leaching Assessment* – [David Kosson](#), Vanderbilt University, USA [[presentation](#)]

10:00 – 10:25 **Break**

10:25 – 10:50 *Overview/Update Regarding LEAF Methodology and its Application to Beneficial Use in the US* – David Kosson, Vanderbilt University, USA [[presentation](#)]

10:50 – 11:15 *Data Analysis of Israeli Fly Ash Using LeachXS* – [Nadya Teutsch](#), GSI, Israel [[presentation](#)]

11:15 – 11:45 *Proposed Research: Leaching and Phytoavailability of Trace Elements in Soils Amended with Coal-Combustion Fly Ash and Fly Ash Treated Biosolids* – Research Team (LEAF, Task 3 – agriculture) [[presentation](#)]

11:45 – 12:45 *Discussion* – Scientific Advisory Committee

12:45 – 13:30 **Lunch**

13:30 – 20:00 **Tour to Jerusalem**

