

Country: Finland	Place: Saarijärvi	Date: 1.6.2011
No. of participants: 7	Organizer: Ariterm Oy, VTT	Target group: pellet producers, equipment manufacturers, researches, investors

Title

Regional networking activities of MixBioPells –project

Topics of the event:

Presentations, discussion on the mixed pellets and the project, decision for the testing of some mixed pellets

Short summary: (aims and goals of the meeting, methods, contents, results)

The aim was to discuss on the markets of mixed pellets, on the first results of test pelletizing, combustion and technology, as well as on the tasks for the future.

Meeting was held in Ariterm Oy facilities. First Mr. Kimmo Kantalainen (Ariterm Oy) told about the history and the present situation of Ariterm Oy. Company has a 100 year experience with boilers, and the company operates in Finland and Sweden. Ariterm Oy manufactures burners and boilers for pellets, wood chips and firewood, and also combiboilers which can use besides solid fuels, also fuel gas or oil. Small, private house burners and boilers are sold through market chains and bigger ones through purchase order. Movable heat centers in the container, figure 1, are also produced. Bigger boilers will be tested after En 303-3 –standard (draft).

Mr. Teuvo Paappanen (VTT) told about reed canary grass production, storage and price formation. Especially the price formation of the raw material evoked discussion. The report of reed canary grass production and storage is available on the www-page “vtt.fi/inf/pdf/tiedotteet/2011/2577.pdf “. Report is in Finnish. Mr. Pasi Mikkonen (Vapo Oy) told also about reed canary production. Bottoms of fens are used in the RCG production. A 20 cm layer of peat is left at the bottom. Peat is chalked and fertilized, pH is adjusted to from 4 to 5+. There is 700 contract producers and 16 000 ha cultivation of RCG in the country.

Harri Honkavaara (Biobotnia Oy) told about the pelletizing experiences with this spring RCG. Reed canary grass might be in moisture of 20% after a short rain, but the sun and wind dried it very fast to 10%. This was too dry for pelleting. Optimum for pelleting is moisture content of 13-17%. Mr. Aarno Alaluusua told that produced pellets, 100 t in May 2011, were used in the gasifier of the Jalasjärvi commune with a mix 38% reed canary pellets and 62% sod peat. The heating value of reed canary grass pellets in volume was doubled compared to sod peat, 2.43 vs 1.27 MWh/m³. The emission values were very close the values of Finnish Government act 445/2010 (5 - 50 MW) even without a flue gas cleaner. Gasifiers might be one solution in the uses of alternative pellets.

New bioheating containers and the factory of Ariterm Oy were visited after the meeting, figure 2.

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The new combustion laboratory of JAMK University of Applied Sciences; Bioenergy Centre, Boiler laboratory (contact: boilertesting@jamk.fi) was visited after the lunch. Mr. Janne Nalkki (JAMK) presented the laboratory. In the laboratory it can be done boiler test to 500 kW, also bigger boilers and heat containers (up to 3 MW) can be measured with different fuels. Several emissions (CO, CO₂, O₂, THC, NO_x, SO_x, small particles) can also be measured.



Figure 1. Heating container for biofuels (Ariterm Oy).



Figure 2. View from the factory of Ariterm Oy.



Figure 3. Mr. Janne Nalkki in the control room of the new boiler laboratory. Laboratory is owned by JAMK University of Applied Sciences and situated in Tarvaala at Saarijärvi.

Invitation of the workshop.



19.5.2011

MixBioPells-PROJEKTIN ALUEELLINEN WORKSHOP SAARIJÄRVELLÄ

Aika: Keskiviikko, kesäkuun 1. päivä 2011
Paikka: Ariterm Oy, Saarijärven tehdas
Uuraistentie 1
43 101 Saarijärvi

09.30 Tervetuliaiskahvi ja rekisteröinti

09.50 Tervetuliaispuhe, paikallinen isäntä

Teema: Ruokohelpi

10.10 Ruokohelpi raaka-aineena, Teuvo Paappanen, VTT
- saatavuus,
- korjuu ja raaka-aineen varastointi,
- ruokohelpin markkinat.

Pelletointi, briketointi
- pelletointi, Harri Honkavaara, Biobotnia Oy

Ruokohelpipelletit polttoaineena, Kimmo Kantalainen, Ariterm Oy

Keskustelua, muut asiat ja seuraava kokous

11.30 Ruokailu (oma kustantaminen)

12.15 Vierailu Ariterm Oy:n tehtaalla

13.00 Tutustuminen JAMK Oy:n Bioenergiakeskuksen kattilatestauslaboratorioon,
Janne Nalkki, JAMK

14.00 Workshop päättyy

Lisätietoja antavat Markku Kallio, puh. 0400-587 268, markku.kallio@vtt.fi ja
Kimmo Kantalainen, Ariterm Oy, puh. 0400-541 721, kimmo.kantalainen@ariterm.fi

TERVETULOA!



Annex 2

List of participants

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THE REGIONAL WORKSHOP OF MixBioPells - PROJECT IN SAARIJÄRVI

Time: Wednesday 1st of June, 2011
Place: Ariterm Oy Saarijärven tehdas
Uuraistentie 1
45 101 SAARIJÄRVI

09.30 Welcome coffee and registration

09.50 Welcome speech, local host

Theme: Reed canary grass

10.10 Reed canary grass as a raw material, Teuvo Paappanen, VTT

- Availability of RCG
- Harvesting and storing
- Markets of the reed canary grass

Pelletizing, briquetting, Harri Honkavaara, Biobotnia Oy

Reed canary grass as a fuel, Kimmo Kantalainen, Ariterm Oy

Discussion, other things and the next meeting

11.30 Lunch (at own cost)

12.15 Visit at the factory of Ariterm Oy.

13.00 Visit in the JAMK Oy, boiler testing lab

14.00 Workshop ends