

8th International Symposium of Integrated Field Science

Advanced Studies on Sustainable Animal Production: Interrelationships among Human, Animal and Environment

Date: 18 (Sat.) – 19 (Sun.) September, 2010

Venue: Multimedia Hall, Kawauchi-Kita Campus,
Tohoku University

Co-organized Japanese Society of Grassland Science

The Animal Production Environment Society of Japan

Japanese Society for Applied Animal Behaviour

Symposium Chair

Prof. Shusuke SATO (Integrated Field Science Center, Tohoku University, Japan)

Prof. Yutaka NAKAI (Project of Integrated Compost Science, Tohoku University, Japan)

Organizing Committee

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----- Program -----

18 (Sat.) September

09:00–09:05 Opening Address: Masanori SAITO (Tohoku University, Japan)

09:05–09:10 Scope of the Workshop: Yutaka NAKAI (Tohoku University, Japan)

09:10–12:15 Session 1. Improving Animal Welfare: Multidimensional Approach

1-1. Environmental Enrichment and Human Contact with Animal

Shigeru NINOMIYA (Tohoku University, Japan) 09:10–09:40

1-2. The Investigation of Slaughter House about the Welfare of Pig and Broiler in Korea

Hwang LEE (National Veterinary Research & Quarantine Service, Korea) 09:40–10:10

1-3. The On-Farm Assessment of Animal Welfare in Dairy Cattle

Tetsuya SEO (Obihiro University, Japan) 10:10–10:40

----- Tea Break ----- 10:40–10:55

1-4. Genes, Neurons, and Circuits Underlying the Reproductive Behavior in *Drosophila*

Kosei SATO (Tohoku University, Japan) 10:55–11:25

1-5. The Role of Oxytocin in Animal Behaviour and Welfare

Katsuhiko NISHIMORI (Tohoku University, Japan) 11:25–11:55

Discussion

Chairperson: Shigeru NINOMIYA (Tohoku University, Japan) 11:55–12:15

12:15–13:15 Lunch

13:15–14:15 Poster Viewing

14:15–17:20 Session 2. Contribution of Grazing on Food Production and Ecological Conservation of Grassland Ecosystems

2-1. Diet Selection and Foraging Behavior of Cattle in Species-rich Vegetation

Shin-ichiro OGURA (Tohoku University, Japan) 14:15–14:45

2-2. Conservation Management of Livestock Grazing and Wildlife in Mongolian Grassland

Buyanaa CHIMEDDORJ (WWF Mongolia, Mongolia) 14:45–15:15

2-3. Predicting Plant Species Diversity and Changes in Productivity Due to Simulated Effects of Cattle Disturbances in Japanese Grasslands

Yu YOSHIHARA (Tohoku University, Japan) 15:15–15:45

----- Tea Break ----- 15:45–16:00

2-4. Effect of Grazing on Habitat and Behavior of Wild Mammals

Hideharu TSUKADA (National Institute of Livestock and Grassland Science, Japan) 16:00–16:30

2-5. Forage Production, Utilization and Environmental Conservation in Sweden

Magnus HALLING (Swedish University of Agricultural Science*, Sweden) 16:30–17:00

*Academic Exchange Cooperation between the University and Graduate School of Agricultural Science, Tohoku University

Discussion

Chairperson: Shin-ichiro OGURA (Tohoku University) 17:00–17:20

19:00–21:00 Banquet (Hotel JAL City Sendai)

19 (Sun.) September

9:00–12:05 Session 3. Advanced Technology on Recycling of Animal Wastes

- 3-1. Animal Wastewater Treatment Using Constructed Wetland
Chika TADA (Tohoku University, Japan) 09:00–09:30
- 3-2. Introduction of Biomass Accounting as an Evaluation Tool of Biomass Utilization Systems: a Case Study of Domestic Animal Waste Treatment Oriented Biomass Town
Lyudmyla BESPATKO (National Institute of Advanced Industrial Science and Technology, Ukraine)
09:30–10:00
- 3-3. Power Generation from Animal Wastewater Using a Single-chamber Microbial Fuel Cell
Osamu ICHIHASHI (Oak Ridge National Laboratory, USA) 10:00–10:30
- Tea Break ----- 10:30–10:45
- 3-4. Archaeal Community During Cattle Manure Composting Process in Field-scale Facility
Nozomi YAMAMOTO (Tohoku University, Japan) 10:45–11:15
- 3-5. Development of a New Fermentation Process for Hardly Degradable Rice Straw Agriculture Waste
Yingnan YANG (University of Tsukuba, Japan) 11:15–11:45

Discussion

Chairperson: Chika TADA (Tohoku University, Japan) 11:45–12:05

12:05–12:10 Closing Remarks: Shusuke SATO (Tohoku University, Japan)

12:10– Field Tour

Poster Session

1	C. Akasaka et al.	Tohoku University	The effect of brushing by a human on behavioral and physiological stress indicators of cows
2	A. Kitagawa et al.	Tohoku University	The validity of salivary-amylase as stress marker of cattle
3	A. Morimoto et al.	Shinshu University	Overall animal welfare assessment of dairy cattle at the farm level using the Shinshu comfort livestock farm certification standard
4	A. Ohara et al.	Tohoku University	The effect of environmental enrichment on welfare and productivity in homebred strain “Tatsuno”(chicken for meat)
5	C. Oyakawa et al.	Tohoku University	Is the dairy cow performing to bite grasses comfortable in grazing?
6	K. Takeda et al.	Shinshu University	Does housing conditions affect the flight distance of dairy cows?
7	K. Kakinuma et al.	University of Tokyo	The linkage between pastoralists’ perspectives and vegetation threshold changes in mongolian rangelands
8	A. Yamada et al.	National Agricultural Research Center for Kyushu Okinawa region	Recovery of <i>pleioblastus variegatus</i> from flowering in the Aso region-results of the 17 th year-
9	M. Okada et al.	Tohoku University	Effect of disturbance size on similarity and resilience of vegetation to the disturbance
10	H. Tomimatsu et al.	Tohoku University	Quantification of bite size, bite rate and intake rate in cattle foraging Japanese native grasses
11	M. Yokoyama et al.	Tohoku University	Do cattle choose preferred plant species without visual sense?
12	K. Kimura et al.	Tohoku University	Analysis of bioconversion and bacterial community of thermophilic hydrogen production using uasb reactor
13	Y. Baba et al.	Tohoku University	Methane fermentation from waste glycerol and sludge ~approach on Miyagi prefecture 3 R new technical research development project~
14	R. Watanabe et al.	Tohoku University	Prevalence and distribution of bovine coccidia in the northern area of Miyagi prefecture
15	R. Sato et al.	Tohoku University	Methane fermentation using waste glycerol produced from biodiesel fuel
16	E. Ito et al.	Kanaashi Agricultural Senior High School	Cattle is possible host animal of the land leech
17	D. Kunii et al.	Tohoku University	Availability of forest resources as firewood for preservation of regional environment
