

**Activity Report Winter Course Program
Ibaraki University, 28th Nov-4th Dec 2011**



“It’s cold in here, but thank for the friendship that makes it warm and warm...”

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Introduction

When agriculture comes as the best choice for the next future, at the time, the young generation is needed to force in every challenge and develop. It's no doubt, that the increasing of human population in the world, is followed by the increasing of demand to full fill the necessities of food. Agriculture is the only one sector that provides human need for living to meet food for today and tomorrow. Now days, agriculture sectors is facing many problems, starting from biophysics, economic and social. To encounter theses problem, young generation is needed. Quality of human resources of the young generation is highly required to improve. In light of this, the young generation need to be more globalized, more develop more enterprise. It's become a big question how we can improve our capacity in agriculture?

Open minded is an effort to answer this big question. It's started from the exchange of experience, knowledge, and also practical in agriculture. Summer and Winter course program is a big effort that also giving big impact to our knowledge, in order to make agriculture sustain in facing the challenge in the future. "Practical agriculture education for local sustainability" is the main theme for this winter course program. Practical means that we not only know the theory but also know how to do the theory itself. Local sustainability means, we have to proud that in Indonesia we have big natural resources and also biodiversity. But we have to learn and learn more from another country (Japan) in order to improve the sustainability of agriculture in Indonesia.

In this program, it's expected that we learn more and more," it's not about what to do, it's about how to do (Faiz Sensei)"

Overview Winter Course Program

Winter course was held on 28th Nov-4th Dec 2011 at Collage of Agriculture, Ibaraki University Japan. This program involved 35 students come from overseas area, Bogor (Bogor Agriculture University), Yogyakarta (Gajah Mada University) and Bali (Udayana University), Ibaraki University and Tsukuba University.

Detail list of participants:

1. Bogor Agriculture University (IPB) : 6 Staffs
16 students
2. Gajah Mada University (UGM) : 1 Staff,
3 Students
3. Udayana Universiity (UNUD) : 1 Staff
4. Ibaraki University : 13 Students
5. Tsukuba University : 3 Students

Program Detail and Documentation

28th Nov 2011 (Monday)

We already arrived safely at Narita Airport at 09.00 and moved directly by bus to Ami Campus, Ibaraki University. Opening ceremony was started at 13.00 pm, a warm welcome speech was given by Prof. Dr. Hiroyuki Ohta as a dean of collage of agriculture Ibaraki University. The next warm welcome speech was given by Nabuo Sakagami as a head of committee winter course program, continued by Irfan D. Prijambada (UGM), Dewa Ngurah Suprpta (Udayana) and M. Faiz Syaib (IPB). The next program was lectured. Lectured was given by 8 lecturers from Ibaraki University, IPB, UGM and Udayana.

The lecture was talked about the research improvement of agriculture in Indonesia and Japan. This lecture gave us new information about the improvement of agriculture. Detail summary of the lecture :

1. Yuji Miyaguchi (Ibaraki University) : Is silk a material for textile? Yes but this also a food stuff. As we knew that silk as a material for textile, but in fact it had high protein inside. So Miyaguchi sensei, improved the protein for food stuff and also other advantages for human live.

2. Dewa Ngurah Suprpta (Udayana University) : Biocontrol potential of microbial antagonist against plant fungal pathogens. Dewa sensei improved biological control using microbial antagonist to plant diseases which resulted significant loss in agriculture crops.
3. Bagus P. Purwanto (IPB) : Milk performance small holder dairy farm. Bagus sensei showed us performance of dairy small holder in Indonesia which effected by the changes of environmental condition.
4. Irfan D. Prijambada : Utilizing ultisols for food production. Irfan sensei showed us, that there were many advantages by utilized ultisols because in Indonesia we can found ultisols, so by utilized ultisol it could be used for additional income for farmer.
5. Fumitaka Shiotsu : Production of energy crops for bioethanol in Japan. Bioethanol was used as alternative energy. This research showed us how to using paddy field in Japan in order to result bioethanol.
6. Hartisari : Information Technology application in Indonesia agriculture. Sari sensei, told us, the improvement of technology by using GIS and RPG for farmer in understanding the agriculture sectors.
7. Ayako Furutani : Molecular analysis of the interaction between *Xanthomonas oryzae pv. Oryzae* and rice through a type III Protein secretion system. The research was observed TS3 system interaction between plants and *Xoo* in molecular level.
8. Darda Efendi : Somatic embryogenesis of some perennial crops. This research was done using several experiments of somatic embryogenesis by using mature zygotic embryo as explants.

The last program of the first day was welcome party, we celebrate “welcome to japan” to all Indonesian, it was held on cafeteria’s university.



Pict 1. Arrived at Narita Airport



Pict 2. Ohta sensei, gave warm welcome speech



Pict 3. Lecture by Bagus sensei (IPB)



Pict 4. Students listened for lecture



Pict 5. Welcome Party, “Kampaiiii”

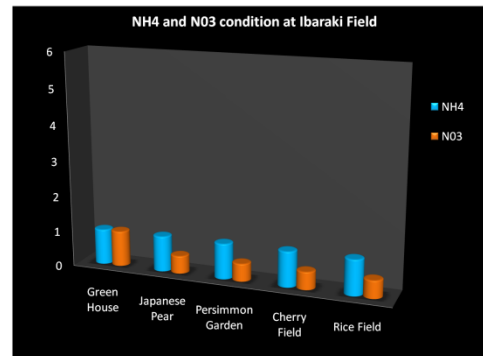
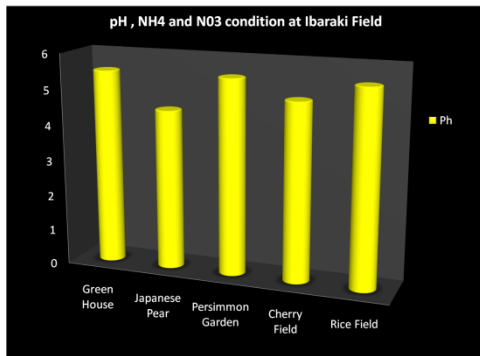


Pict 6. Dish for welcome party

29th Nov 2011 (Tuesday)

On the second day, we were doing some field experiment on Field Research Center (FRC), Ibaraki University. We were measurement for soil analysis in some area such as strawberry field garden, green house ect. From this experimental field we got some data, as detailed :

Data Taken	pH	NH ₄	NO ₃
Green House	5.5	1	1
Japanese Pear	4.5	1	0.5
Persimmon Garden	5.5	1	0.5
Cherry Field	5	1	0.5
Rice Field	5.5	1	0.5



Students also visited Gene Research Center. In this place anzai sensei explained about molecular and biotechnology for our live. Another activity was meeting for double degree program. In this chance, me (windi) and nicho, students who will take part of DDP program met for our supervisors. The last after all activity, we had a dinning time with all student at indana restaurant.



Pict 7. Students in FRC, Ibaraki



Pict 8. Soil Sample



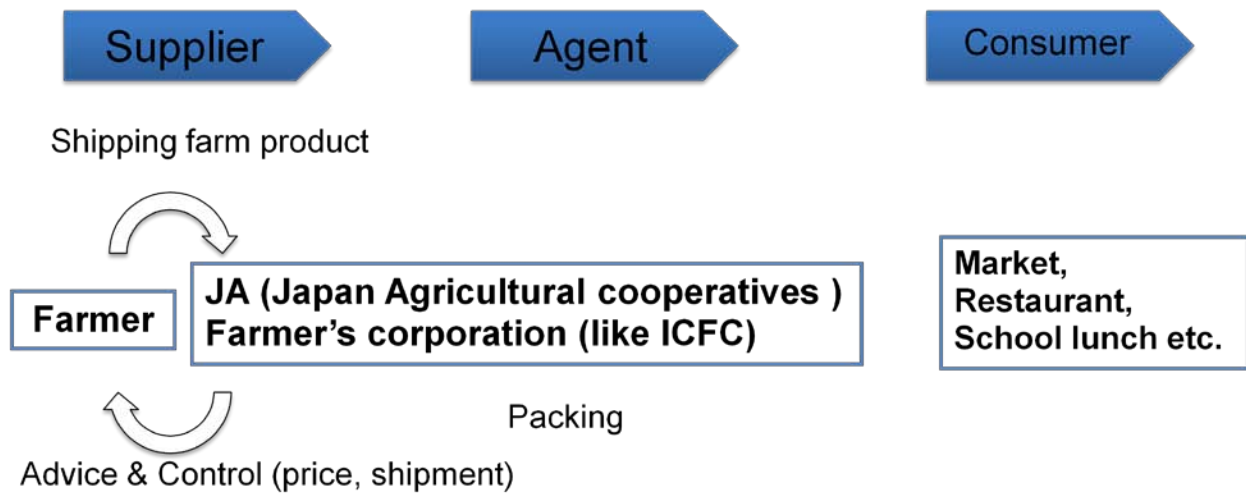
Pict 9. Soil Sampling in Persimmon Garden



Pict 10. Dinner Together

30th Nov 2011 (Wednesday)

The third day, Japan was colder than before. We started our program by visiting Ibaraki Central Agriculture and Horticulture Cooperative (ICFC). In this place we saw the management of farmer cooperative in Ibaraki. We knew that, all farmers collected all harvest in this place. They were collect harvest, lead n teach the farmer for technology and also gave information. They also protect the price of harvest in order to protect the farmer. On the other hand, ICFC mediated between farmers and consumers (school lunch, restaurant etc.), ICFC set the price and the shipment of farm product, ICFC patrol associate's farmland and advice and they bring farmer stable income.



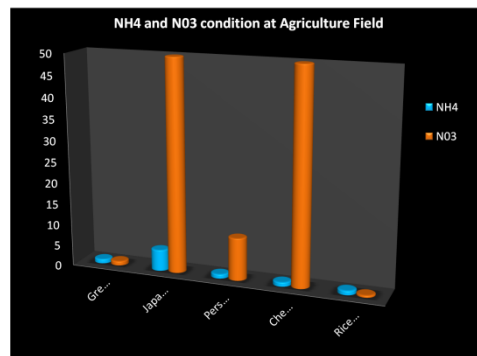
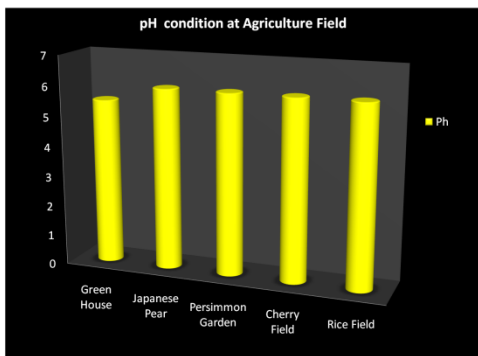
Pict 11. Supply chain management of ICFC.

Another activity were done, we visited for farmer who was partner of ICFC. Mr. Torihata was a farmer who had more than 7 Ha farming area. He planted many kinds of vegetable, such as tomato, cabbage, chilly, paprika ect. He also had a small dairy farming. In this chance we also do some soil sample. Hence, he implemented integrated farming system for his farm. He used an on-farm composter machine for organic fertilizer from rotten or low-grade vegetables. Then surplus or deformed crop were turned compost. In this way, he manages to provide his own fertilizer for the field. It was a good integrated management system.

We also had an interview with Mr. Torihata, He told us that he had his own canning machinery to produce tomato drink. The production reached 100 boxes of cans a day. It was

sold to supermarkets. He built the postharvest machinery system from ground zero, from accumulating his own capital. Other handling were done : cutting, grading, and packing in a wrapped box.

Data Taken	pH	NH ₄	NO ₃
Green House	5.5	1	1
Japanese Pear	6	5	50
Persimmon Garden	6	1	10
Cherry Field	6	1	50
Rice Field	6	1	0.5



In the end of the third day, we had technical tour to Ibaraki Prefecture Ceramics Technology Office. In this place we got some explanation about the ceramic research center in Ibaraki. We already knew that they had many research and program to improve the quality of ceramics. We knew that they were welcome trained everyone that interest on ceramic art and technology.



Pict 12. ICFC explanation



Pict 13. In Mr. Torihatta Farming area



Pict 14. Making compost from garbage



Pict 15. Post-Harvest Handling



Pict 16. Visiting Ibaraki Prefecture Ceramics Technology



Pict 17. Ceramics

1st Dec 2011 (Tuesday)

The next following day, we visited Ota market- tokyo metropolitan central wholesale market. In this market we knew that supply chain management of fresh foodstuff such as vegetable, fruits ect. The system in this market started by arriving the product by vehicles in the afternoon of the day, prior to the auction (where the middleman and buyers make the arrangement) of the goods for display in the market area during this time in preparation for the next day's auction. Between the early morning hours and the actual inception of the auction middlemen and the buyers' quality inspect and price estimated the goods, it's called "shitami" in Japanese language. The goods were sold to the highest bidder of the auction.

We also visited Edo Tokyo Museum. It's a place where visitors come to learn more about Tokyo's history and culture and which also serves as a projection onto the city and the living of the future. The building was modeled after an elevated-floor type warehouse. At its highest pint reached 62,2 m. The whole construction area covers about 30,000 squares meters that is 2.4 times bigger that the field area inside the Tokyo Dome stadium. There were two part of Edo Museum, the first was Edo Zone which showed us introduction of Edo Era, the economics system, and also the culture itself. The second was Tokyo Zone, which showed us conversation from the Edo Era to Tokyo Era. The last of the excursion were cruise by water bus crossing the Sumida river- heart of Tokyo city. Then we went to Akihabara for shopping.



Pict 18. Visiting Ota Market



Pict 19. Presentation in Ota Market



Pict 20. Edo Museum Tokyo



Pict 21. Milestone of Edo Era



Pict 22. Water Bus in Sumida River



Pict 23. Shopping at Akihabara

2nd Dec 2011 (Friday)

Discussion was started of this day. The group gathered and shared information about the program passed. We made a group discussion and presentation. We had 7 hours left discussing and reporting our activity. At 15.00 we had group presentation, each group had 10 minutes left to present their report, and 5 minutes left discussing with other participants. While discussed we also had mini symposium for Double Degree program. In this chance invited many participants from various university in Japan, ie Tsukuba University, Utsonomya University, Ehime University, Chiba University, Ryukyu University, ect. The ceremonial of DDP program legitimated by Prof. Dr. Hiroyuki Ohta, as a dean collage of agriculture Ibaraki University. There was also Prof Nobuo Mimura as a vice president of Ibaraki University, and also Mr. Kunaiki Sato, as Deputy Director of MEXT Japan and. Prof. Yonny Koesmaryono, as Vice Rector for Academic and Student Affairs, Bogor Agriculture University. After all activities, we had a farewell party. In this chance we had many performances from students, such as pasambahan dance, angklung, arumba and pencak silat. We left many good memories in farewell party.



Pict 24. Student Presentation



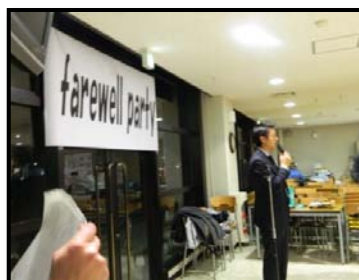
Pict 25. DDP symposium



Pict 26. Director of MEXT gave an address



Pict 27. Agenda of DDP symposium



Pict 28. Already started for Farewell Party



Pict 29. The Dancer

3-4th Dec 2011 (Saturday- Sunday)

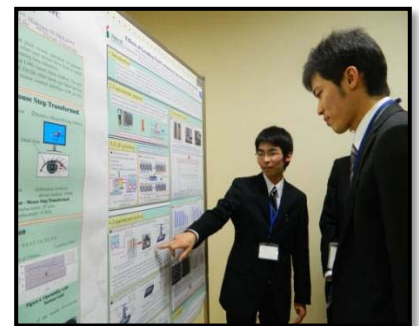
On this chance, we had ISCU 7 (International Student Conference at Ibaraki University). In this conference we had poster presentation, oral presentation and also lecture. ISCU 7 was a conference “for student” and “by students”. The theme of this conference was “ The Future”. This program, was joined by 11 countries and composed 108 papers submitted to ISCU 7. We also had a keynote lecture from Makie Kokubun, From Tohoku University under the title “Strategies for Crop Production under Changing Climate. The purpose of this lecture was describing the real condition of agriculture sector, challenge in climate changes. A possible ways to overcome the anticipated climate changes by genetic and environment crops, placing an emphasis on rice and soybean, both of which are Asian origin and extremely important in diet of Asian People. Then, the second keynote speaker come from University of Tsukuba, Makoto M. Watanabe under title “Hydrocarbon-producing algae- the most promising feedstock’s for biofuel. Biofuel was renewable energy that had big advantages for human living. The renewable energy was small scale and distributed system as represented by bio-based fuel and small scale hydroelectric power generation which differs from conventional large-scale and centralized type. By these two keynote speakers we already knew many improvements in agriculture sectors. The last we also had party and banquet, there were also some performance of Japanes Students.



Pict 30. Opening Ceremony of ISCU 7



Pict 31. Agenda of ISCU 7 1st day



Pict 32. Poster Presentation



Pict 33. Party, and Kampai...



Pict 34. Banquet



Pict 35. Japanese Student Performance

Conclusion and Suggestion

From the short amazing experience in Japan, I learnt many things. The culture, the people, and also its custom were so interesting. We also learnt how to respect each other from different country and society. At least, it's become a good energy and good spirit for always learning more. The differences always various, various make human learn to adapt, and when human learn something, he/she become smart and smarter. My suggestion for the next winter course is to involve more Japanese student in order to promote this program. Probably, we can visit different place that related with agriculture more widely.

This is the end of winter course international join program, I would like to say thank to all my Indonesians friends students, my lectures, all committee to success this program and special to all my Japanese students.

We might be different in every part of our life, but I do believe we united;

We close in one vision- agriculture- (Windi)