

TRAVEL REPORT

By Atef Haddad DSIPSP, Agronomy, ACIAR-AusAid –Iraq Project. November, 2010

Travel Period: August 20 to September 29, 2010

Objectives of Travel:

- Study visit to West Australia to get acquainted with CA cropping systems in dryland farming. it was jointly group visit with Mr. Shukri Ismail St. Op. ICARDA and 6 Iraqi researchers/extensionists from Ninevah governorate.
- Visit agro-machinery department at University of South Australia, and learn about evolution, development and testing of ZT machinery in UniSA labs.
- Plan for extension and machinery training for ACIAR project at ICARDA I spring 2011
- Learn and discuss weed management and herbicide resistance under CA systems with Australian weed scientists to set PhD proposal for new student at ICARDA.

Travel Schedule:

August 21 to September 2010 Department of Agriculture and Food, Perth and Northam-Muresk, WA.

September 13 -15. 2010 University of South Australia, Adelaide

September 16 – 20, 2010 Department of Agriculture and Food Albany WA.

September 21-27, 2010 Department of Agriculture and Food, Perth and Northam-Muresk, WA.

September 27-29, 2010 Departure from Perth to Aleppo via Dubai.

The group:

1. Atef Haddad, ICARDA, Agronomy, ACIAR-AusAid –Iraq Project
2. Shukri Ismail, ICARDA, Station Operation.
3. Bassam Qasem, DOA, Mosul, Ninevah
4. Imad Hermez, DOA, Tal Kief Ninevah.
5. Haii Yaqoub, DOA, Shiekhan, Ninevah
6. Sami Moustafa, DAO, Al Qosh, Ninevah
7. Muhanna Jaroo, SBAR, Ninevah
8. Dr. Mohammed Al Taweel, University of Mosul, Ninevah



Transportation and accommodation

Department of Agriculture and Food-WA has rented a 12 passengers bus for local transport, bus was driven by the Australian facilitators. Travelling was generally comfortable and eventually safe for a distance of 8000 km in 35 days.

The group was accommodated in very comfortable apartments in Perth and Albany, accommodation in Northam-Muresk was less comfortable due to shared facilities for 8 people.

Interpretation and language

Generally the Iraqi group has a very limited knowledge of written and spoken English language, they could not understand presentations or discussion without interpretation therefore it took more time from lecturer and much efforts from me over the visit.

Australian facilitators

Department of Agriculture and food has assigned 3 senior facilitators to accompany and provide guidance to the group, drive the bus and follow up visit program, facilitators were:

1. Dr. Doug Abrecht; Senior Research Officer, DAFWA-Northam
2. Dr. Mohammed Hamza, Senior Soil Scientist / Agronomist, DAFWA-Albany
3. Dr. Darshan Sharma, Senior Research Agronomist, DAFWA-Perth

Mission Detail:

The mission included different activities, the field days covered a range of issues beginning with the largest machinery field day and including some field days organized by farmer groups. Visits to research stations included main plant breeding and seed production station, farm visits showed the local commercial crops and the methods used by Australian leading farmers

FIELD DAYS:

The group has attended the following field days in WA:

1. DOWERIN, GWN Machinery Field Day, August 25-26 2010 www.dowerinfielddays.com.au.
2. The Western Australian No-Till Farming Association field day WANTFA clay incorporation field day at Bolgart, 31 August 2010. http://www.gga.org.au/files/files/443_Clay_demo_flyer.pdf
3. Liebe Group Spring Field Day, East Maya, Nankivell's Property, 9 September 2010, <http://www.liebegroup.asn.au/downloads/sfdflyer.pdf>
4. GRDC Water Use Efficiency Field Walk at. **Karoonda. Mallee Sustainable Farming (MSF)**, 14 September 2010, http://www.msfp.org.au/docs/media_232.pdf
5. Facey Group Spring Field Day at Wickepin, 15 September 2010 <http://www.faceygroup.asn.au/PDF's/SFD%20agenda%20poster.pdf>
6. WANTFA (West Australia No Till Farmer Association) spring field day at Conderdin, 22nd September 2010, <http://www.wantfa.com.au/events.php>
7. Meridind Research Station 97 Field Day, http://www.agric.wa.gov.au/PC_93588.html

Atef Haddad and Shukri Ismail attended Field day No 4 in South Australia, and missed No 5

Research Centers:

The group has visited Department of Agriculture and Food (DAFWA) in Perth, Northam, Albany, Narrogin and met with Australian scientists, the group listened to many presentations delivered by recognized researchers from different disciplines

Presentations

- presentation by Doug Abrecht presenting the following topics:
 - Residue management and Australian experience, potential of crop residues in Syria and Iraq
 - Seed placement and suitable machinery.
 - Fertilizer application and deficiency
 - Compaction and traffic management
- Seed Certification Process by Dr. Mike Davies
- pedigree seed stage by Dr. Neil Venn
- The value of on-farm research in the Western Australian grains industry, (A case study). by Dr. Jeff Russell
- On Farm Research ,Design and Protocols by Dr. Jeff Russell
- Getting growers to help with your research and extension. by Dr. Jeff Russell
- Working in partnership with researchers & industry by Susan Hall & Megan Meates
- “Diagnosing crop and pasture problems with Detective Doug” by Dr. Doug Sawskins
- Departments and activities of Chemical centre of Curtin University by Dr. McCafferty,
- Getting growers to help with your research and extension. by Dr. Jeff Russell
- Some aspects of agronomic management of ZT malting barley in Albany district in WA by Dr. Jeremy Lemon.
- Statement of soil management under ZT systems in WA. by Dr. Mohammed Hamza presented a
- Wheat Agronomy and Modeling research in WA by Dr. Darshan Sharma and
- Integrated weed research in WA, by Dr. Abul Hashem and he explained the following topics:
 - He explained the development of herbicide resistance in wild radish and ryegrass in WA.
 - Introduction to weeds in WA, importance of invasive weeds and weed losses due to important weeds in different crops in WA
 - Methods of weed control in WA and Integration between herbicides and other physical and cultural practices of weed management.
 - Extension weeds management activities in WA and the role of e-extension in solving problems.
 - Field experiment on integrated control of Brome grass using different herbicides, different ZT seeders on different levels of crop residues.
- Dr. Christian Valentine Agricultural economist and extension specialist has explained all methods used by DAFWA to provide very effective extension program, he described the mapping systems in farmers fields

The group prepared presentation for orientation to East Mediterranean agro-system and an introduction to ZT machinery development in Syria and Iraq, this presentation was delivered at:

- Primary Sales Australia.
- Department of Agriculture and Food in Darrogin District.
- Department of Agriculture and Food in Albany

Visit to University of West Australia on Friday 3rd Sep 2010:

The group was received by Professor K. Siddique Director of UWA Institute of Agriculture, he presented an orientation to UWA in general and details for Institute of Agriculture and main departments and activities. That was followed by presentations for different departments as follows:

- Ben White head of Economy dept. and Amin Mugera presented main activities of socioeconomic department
- William Erskine; Director of Centre for Legume in Mediterranean Agriculture (CLIMA) presented the main objectives of CLIMA and the main activities in promoting legumes in Australia and in other countries with special emphasis on post conflict countries like Iraq.
- Susan Hall; Head of Gower Group Alliance, she presented the role of grower groups in developing and promoting CA in west Australia,
- Prof. Ken Flower Associate Professor from WANTFA (West Australia No Till Farmer Association) explained the role of WANTFA in WA.
- Mr. Kim Chance: former minister of agriculture in WA: Mr. Chance explained to group the role of Ministry of Agriculture in promoting CA as a main solution for dryland agriculture.
- Iraqi Master Students; the group has met with 5 Iraqi master student in UW.

Seed multiplication and Processing:

The group has visited and learned about all seed issues in WA starting from pre-breeding activities into export terminal as follows:

- Introduction to Seed production activities, seed purity and testing, seed health, DAFWA- Perth, 30 August 2010
- Pedigree seeds and seed multiplication fields, Wongan Hills, 6 September 2010
- Seed cleaning enterprise and seed storage and silo factory. Katanning, 8 September 2010
- CBH Metro Grain Centre, Albany, 17 September 2010

Visit Agro-Machinery Companies and Laboratories:

- The group visited on 2nd September “**PRIMARY SALES Australia**” www.primarysales.com in Midland, this company is one of the most outstanding companies in Australia; the group was received by the director of business development Mr. Alan Fisher.
- A. Haddad and S. Ismail visited on 15 September 2010 “John Shearer”, <http://www.johnshearer.com.au> main factory at Adelaide and met with Mr. Franco Perrotta the operation manager who explained the status of declined business of John Shearer and new plans for restoring their position in world market, Mr. Parrotta showed us all stages of manufacturing seeders all over the factory, then we discussed Rama seeders modification into ZT systems and expressed his satisfaction and willingness to visit the area.
- A. Haddad and S. Ismail visited on 15 September 2010 University of South Australia – Agro-Machinery Engineering Department: this department is equipped with a very advanced technology for developing and testing all agro-machinery under controlled conditions, especially ZT accessories, Dr. Jack Desbiolles has explained all current activities in the department with special emphasis on evolution of ZT machinery.



Media Release:

Atef Haddad on behalf of the group has few media interviews in:

- Countryman magazine, at Dowerin field day with the reporter Haidee Vandenberghe .on 26 August 2010
- ABC Rural, at Liebe field day with Andrew Thompson Rural and Resources Reporter. on 8 September 2010
- Rural Press at Mallee field day, Karoonda, SA on 14 September 2010,
- Mercury Merridin Wheatbelt newspaper at Merridin field day, with Tanya Murphy on 23 September 2010

Adelaide visit (Atef Haddad and Shukri Ismail), 13-15 September 2010

Meet with Dr Jay Cummins and Dr. Jim Fortune at work dinner on 13 September 2010, following topic were discussed:

- One day trip of the 2 consultants for water and sheep on 28 September to Salamiye, Morek.
- November workshop for new projects for Iraq.
- Extension workshop for Iraq project next April.

14 September 2010

- Visit to Roseworthy Campus University of Adelaide field trials, Tuesday 14 September. Atef Haddad and Shukri Ismail were accompanied with Dr. Jack Desbiolles agriculture research engineer. USA, to field trial site in Roseworthy, we met Mr. Benjamin Fleet who explained 2 experiments:
 - Disc seeding vs Pre-em herbicides.
 - Weed recruitment by Sowing Systems trial.
- Visit trial crop walk at Karoonda SA Mallee. http://www.msfp.org.au/docs/media_232.pdf
- A.Haddad has met during field walk with Dr. Gurjeet Gill who work on weed dynamics under conservation agriculture <http://www.adelaide.edu.au/directory/gurjeet.gill>
- A. Haddad was interviewed during field walk by a journalist from Rural press about our mission in Australia,

Wednesday 15 Sep

- John Shearer <http://www.johnshearer.com.au> main factory at Adelaide and met with Mr. Franco Perrotta the operation manager
- Balaklava Agricultural High School which is considered training centre for agro-machinery training of young generation and we saw new ZT seeders and using sophisticated equipments in modern agriculture.
- We had many stops in farmer fields north to Adelaide were we saw very vigorous and very well managed rainfed fields of wheat, barley, lentil, peas and canola, we visited also an organic olive orchard and processing place for oil and table olives.
- Visit University of South Australia – Agro-Machinery Engineering Department: this department is equipped with a very advanced technology to develop and test all agro-machinery under

controlled conditions, especially ZT accessories, Dr. Desbiolles has explained all current activities in the department with special emphasis on evolution of ZT machinery,

Issues discussed with Jack Desbiolles, University of South Australia

- Training for ZT machinery (25 trainees) has to be conducted mid March 2010 at ICARDA station and Kamishly for 2 weeks,
- Project team should prepare and summarize 2010 survey results of Syria and Iraq to determine priorities of ZT technology
- Involve Master students to work on status of seed metering systems across the region, Jacky may help.
- Translate a brief book of Disk seeders into Arabic

Weed management contacts

Atef Haddad has special contacts and meetings for weed management under CA, aimed at setting PhD research proposal for Ms. Evin Khalil who will join agronomy unit (2010-2013).

- Dr. Jeremy Lemon; senior development officer and Mr. John Moore weed specialist, A. Haddad exchanged ideas regarding weed dynamics in the transitional stage from CT into ZT and learned about Australian experience in solving raising weed problems especially herbicide resistant of some weed species, Dr. Lemon and Mr. Moore recommended to keep monitoring weed species and its seed bank in the soil as a subject for PhD thesis of Evin Khalil
- Abul Hashem www.fulbright.com.au/2008%20scholars/abulhashem. suggested the title "The effect/impact of conventional tillage and conservation tillage on weed species density in cereal/legume rotation" research study will use selected treatments of B7 tillage comparison trial (treatments 2, 3, 4, 6 and 7)
- David Minkey <http://ahri.uwa.edu.au/Research/PhD-Projects/David-Minkey>. suggested having the original plan and he will work on suggesting specific sub treatments and relevant measurements, he suggested focusing on major weeds only.

Comments and recommendations:

- The visit was well timed, planned and very useful to learn and see CA in West Australia.
- Discover and learn about the role of integrated crop management for improving crop productivity in poor sandy soils and dry conditions.
- Field days provided good opportunities for getting scientific experience and much learning about extension systems in Australia
- Getting acquainted with comprehensive seed production systems may help in developing similar systems in Iraq.
- Visiting agro-machinery exhibitions and factories provided better understanding for precision agriculture and acknowledged the evolution of ZT systems, contacts and discussions helped the group to figure out selecting proper ZT machinery for Iraq.
- Visits presentations and contacts to different Departments of Agriculture and Food as well as universities enhanced the knowledge of integration between different partners for research and development (R&D) activities

Iraqi group recommendations and demands:

Iraqi group submitted their comments, recommendations and demands after they return to Nineva which can be summarized

- Items needed for the project
 - 2-4 m tine ZT seeder (Echo seeder) from Duncan co.
 - plot combine to enable an efficient small plot harvesting
 - ZT seeding units and accessories for assembling research seeder in Iraq and legume harvesting accessories from PRIMARY SALES.
 - Digital field Microscope 10x -200x.
 - New herbicides, Sakura for wheat and Balance for chickpea
- Lessons learned from Australia and can be applied in Nineva
 - Implement crop rotation and introduce peas and canola to the system.
 - implement herbicide rotation to avoid build up of herbicide resistance.
 - the importance of crop residues and residue management for CA systems
 - the importance of farmers groups and associations in agricultural research, development and marketing
 - the role of participatory extension for the introduction of new technologies and solving problems

Atef Haddad

ICARDA

10 November 2010