

ACIAR/AusAID Iraq Project



Reporting

CIM/2004/024 Better crop germplasm and management for improved production of wheat, barley and pulse and forage legumes in Iraq (May 2005 - June 08)

Planning

CIM/2008/027 Development of conservation cropping systems in the drylands of northern Iraq (July 08 – June 11)

Colin Piggin
Reporting/planning meeting
ICARDA
7-11 Sept 2008

Agenda and outputs



Reporting (Sunday-Monday)

CIM/2004/024 Better crop germplasm and management for improved production of wheat, barley and pulse and forage legumes in Iraq

- presentations/discussions on 2007-08 results
- outcome – information/reports contributing to final project report (2005-08)

Planning (Tuesday-Thursday am)

CIM/2008/027 Development of conservation cropping systems in the drylands of northern Iraq

- discussions/agreement on 2008-09 workplan
- outcome - 2008-09 workplans

Project Management Committee Meeting (Thursday pm)

- discuss/resolve major issues and approve reports/workplans



CIM/2004/024 Better crop germplasm and management for improved production of wheat, barley and pulse and forage legumes in Iraq

2007-08 Brief Overview Report

Colin Piggin
Reporting/planning meeting
ICARDA
7-11 Sept 2008



Objectives

Aim: To improve dryland cropping in northern Iraq through the testing, promotion and dissemination of improved crop cultivars and crop management practices

Objectives:

1. **Extension:** demonstration and promotion of “best bet” varieties and crop management technologies

- 2/3. **Research:**
 - testing of new varieties/lines for adaptation (wheat, barley, chickpea, lentil, fababean, forages)
 - testing of new crop management systems

4. **Training** of Iraqi scientists in research and extension

Project reporting and work planning meeting

2-6 Sept 07



Seed – ICARDA supply and Ninevah production



To support the R&D program

2007

- 1.9 tonnes of ICARDA seed supplied in Dec 07
- other necessary seed produced/saved in the 06/07 harvest in Ninevah

ICARDA seed dispatch



Ninevah seed receipt



Demonstrations 2007/08

Locations of on-farm demonstrations for varieties and establishment:

- **High Rainfall:**

Al Shikhan
Rabeea
Al Qush

- **Medium Rainfall:**

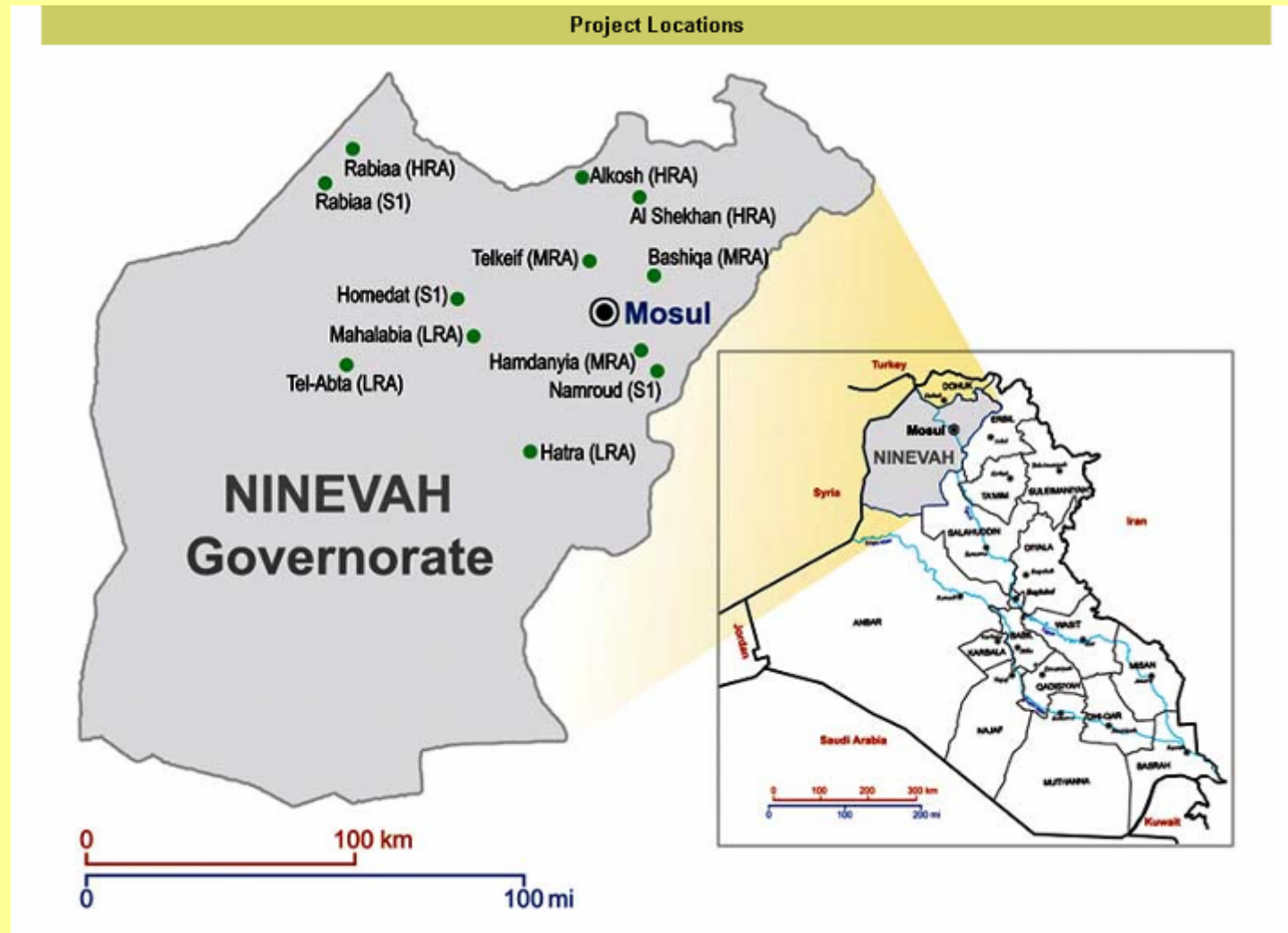
Al Hamdania
Tel Kief
Baashiqa

- **Low Rainfall:**

Tel Abta
Al Hatra
Al Mahalabya

- **Supplementary Irrigation:**

Rabeea (HRA)
Al Nimrud (MRA)
Hummaidat (LRA)

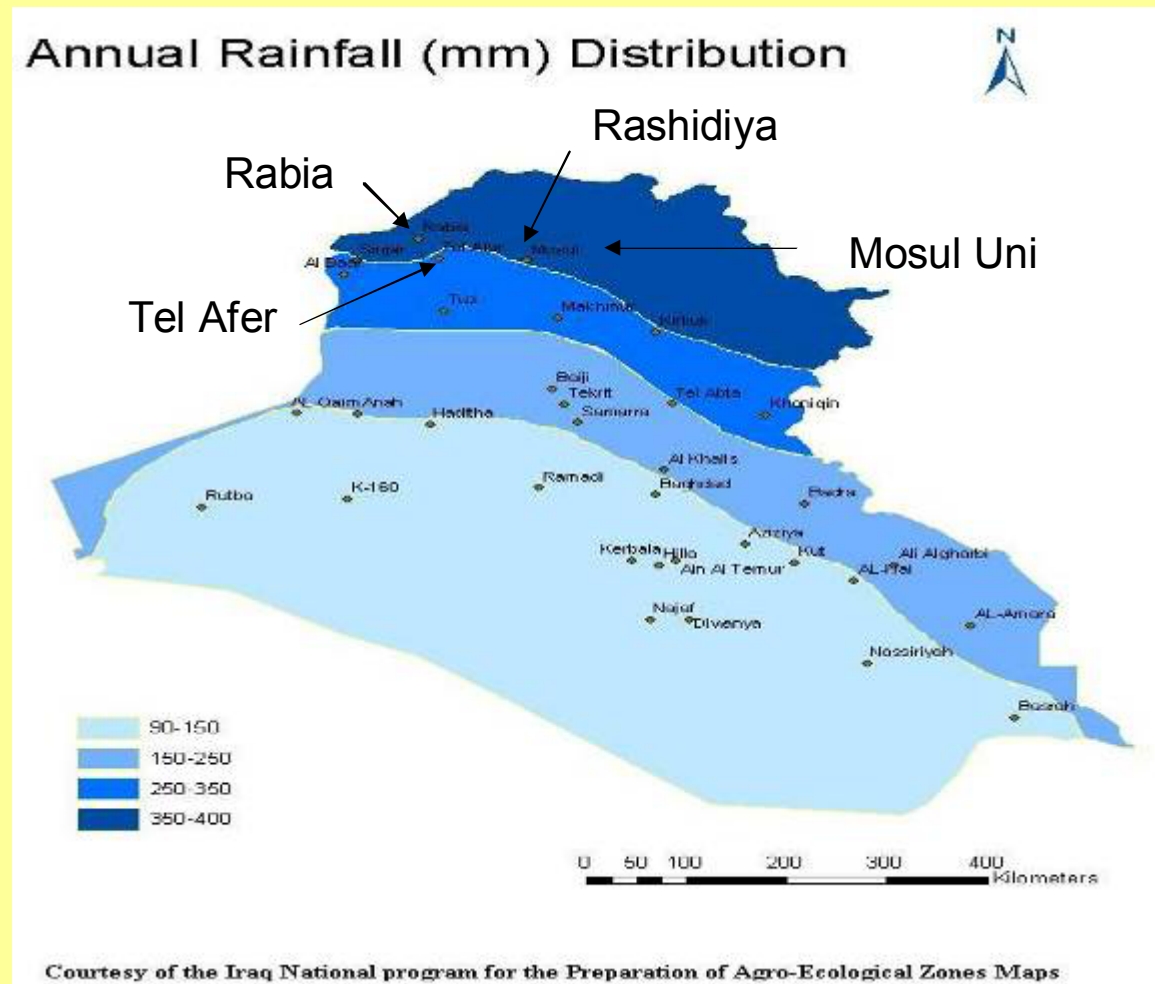


Research Stations

Rashadiya RS - functional

Mosul Uni – introduced in 2007-08

Tel Afer and Rabia – not functional (land disputes, destruction, insecurity)



Drought in Ninevah

(Oct 07 – Mar 08)



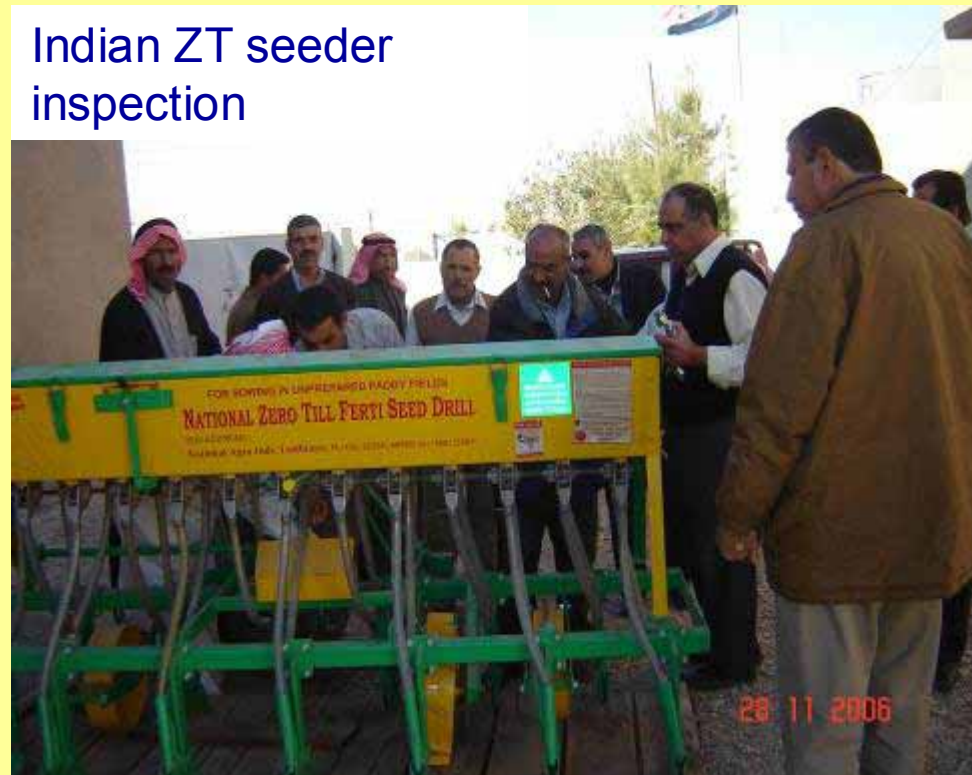
Zone	Site	First rain \geq 5mm	Total (mm)
LRA (200-350mm)	Al Hatra	24 Jan	39
	Tel Abta	23 Jan	57
	Mahalabia	30 Jan	58
MRA (350-450mm)	Tel Kief	29 Jan	94
	Al Hamdania	5 Jan	116
	Bashiqa	5 Jan	63
HRA (>450mm)	Al Shykhan	23 Jan	99
	Al Quuosh	28 Jan	165
	Rabiaa	30 Jan	60
SI (RF + \leq 150mm)	Hamidat	30 Jan	98
	Al Namroud	28 Jan	108

- cropping demonstrations and research activities severely constrained in Ninevah

Local construction of ZT seeders

- local unavailability of ZT seeders constrains ZT adoption
- Indian ZT seeder unsuitable for extensive Ninevah conditions
- investigating modification of local seeders

Indian ZT seeder
inspection



Modification of drill seeders for ZT in Ninevah

Rama seeder modified for ZT



Modification of ZT disc seeders for ZT in Ninevah

PhD study by Zakar M. Khudur, Mosul Uni



**Modified one
way disc tiller Seeder
Method of hitching (trailed)
Working width (3.8 m)
hopper Capacity (570 kg)
Weight (1200 kg Unloaded)
tractor size (100 hp .)**

**الديسك البدار المحوّر
طريقة الشبك (مسحوب)
العرض الشغال (٣,٨ م)
سعة الخزان (٥٧٠ كغم)
وزن الالة فارغة (١٢٠٠ كغم)
حجم الساحبة (١٠٠ حصان)**

Linked ICARDA agronomy 2007/08

Focus on conservation cropping

- zero-till and stubble mulching
- alternative crops (diverse rotations)



Brassica juncea 82NO00-98



Kasper peas



Possum oats

C16

Zero-tillage research 2007/08

2 long term trials

- lentil on wheat stubble (C16)
- wheat, chickpea, barley, lentil (B4)



B4

23 Dec 07



30 Apr 08



Construction of ZT seeders in Syria

Hypothesis: local availability of ZT seeders limits adoption

- exchange visits with ICARDA and 4 manufacturers in Syria in Mar/Apr 08
- experimental manufacture of local ZT prototypes

ICARDA visits



Workshop visits



Local construction of ZT seeders

Excellent progress with Kamishley, El Bab and Qabassin manufacturers



El Bab 26 Aug 2008

Qabassin 26 Aug 2008

Kamishley 31 July 2008

Testing of alternative crops

Objective: To evaluate alternative dryland crops for Mediterranean environments

- Oats
- Peas
- Brassica oilseeds



Oats 2008

Seed production

Euro

19 May 2008



Yield trial

Carrolop

2 April 2008



Peas 2008

2 April 2008



Local peas



Kasper peas

Oilseeds

2007-08

Continuing

Variety comparison (4 reps)

- very poor establishment

- no harvest

19 May 08



2005-08 socio-economic research

To underpin adoption and impact evaluation

(MOA Baghdad, UniMosul, ICARDA)

- baseline survey (260 farm families) - July-Sept 2005
 - evaluated current cropping systems and constraints to help:
 - direct research efforts
 - evaluate project outcomes and impacts
- economic analysis of yields and net revenue from demonstrations
 - yields: chisel and zero-tillage > farmer control
 - returns: zero-tillage > chisel > farmer control



2007/08 - Impact analysis



Australian training

May/June 2008



Trainees

- **Dr Saleh Bader, DG Research, MOA Baghdad (1-18 May 08)**
 - R&D management (AusAID, ACIAR, GRDC, CSIRO, University of Adelaide, SARDI, PIRSA, UWA, DAFWA, Murdoch University, Muresk-Curtin UNI, WANTFA)
- **Dr AbdulSattar AlRajibu, Agronomy lecturer, Uni Mosul (1 May–12 June 08)**
 - conservation cropping (University of Adelaide, SARDI)
- **Dr Sa'ad Mohamed, Socio-economist, MOA Baghdad (1 May–22 June 08)**
 - conservation agriculture and socio-economics (UWA, DAFWA)
- **Mr Raad Hameed, Cereal breeder, MOA Ninevah (1 May-12 June 08)**
 - conservation agriculture and plant breeding (DAFWA, UWA)

Budgeted – 3; Achieved - 4

Capital equipment

2008

- seed cleaning plants (10)
 - MOA-requested units supplied from Kamishley Syria May 2008



Publications/reports 2007-08

- Brief monthly reports to ACIAR/AusAID
 - May 2005-March 2008
- Report of Project Planning-Reporting Meeting
 - Sept 07
- Annual Project Report to ACIAR
 - 2006-07
- Technical Report
 - Second Nov 06 – Sept 07
- Socioeconomic Studies Report 2006-07 March 2008
- Project web site - set up in late 2007

ACIAR-ICARDA Iraq Project - Microsoft Internet Explorer provided by ICARDA IE v11706

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Address <http://www.icarda.org/ACIAR/> Go Links

ACIAR - ICARDA Iraq Project

Better Crop Germplasm and Management for Improved Production of Wheat, Barley and Pulse and Forage Legumes in Iraq

Project Partners:

- ACIAR
- ICARDA
- University of Adelaide
- Ministry of Agriculture, Iraq
- CLIMA
- University of Mosul
- Dept. of Agriculture and Food, WA

Capacity Building

- Training Topics
- Training Materials

Maps

- Project Locations
- Ninevah Governorate (in Arabic)

Project Overview & Progress

Redevelopment of the agricultural sector is identified as a high priority by the Iraqi National Development Strategy (2005-2007) given that production comprises 8% of GDP; it provides employment for 20% of the population and sustains 7 million people in the rural areas. More than half of the cultivated area annually is sown to barley and wheat with some pulse legumes in the northern rainfed areas.

[.....more](#)

Project Documents:

- Letters & Agreements
- Planning Meeting Minutes

Reports:

- Annual Reports
- Technical Reports
- Farming Systems Reports
- Other Reports

Presentations

- Project Progress
- Other Topics

Internet

Review and planning meeting 13-17 April 08



Review 13-17 April 08



Review April 08

Field visit 15 Apr 08



Review April 08

ICARDA Field visit 16 Apr 08

ZT lentil C16



Oats



Zero till B4

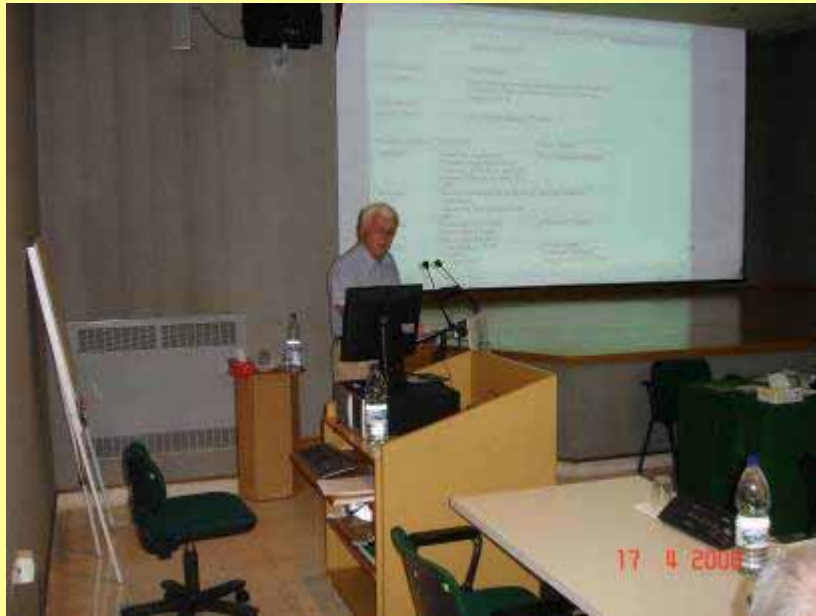


Peas



Draft review report

17 April 08



Reviewer Dr David Connor



Draft review report

17 April 08

Recommendations

1. The project team be reminded to include the missing cereal cultivar evaluations in the technical report for the third year of the project.
2. ACIAR classify the project as highly successful and favourably consider a proposed extension.
3. ACIAR ensure that a continuing project focuses on the gains that have been achieved in the first phase. Overall, this implies a concentration of all aspects of work on the adaptability of zero tillage to production systems that include rotational crops and also alternative forage sources for sheep.
4. ACIAR ensures that a continuing project provides a dedicated leader based at ICARDA.

Phase 2 planning and design

April – August 2008

ICARDA/Australia

- ICARDA-Aust-Iraq design Apr/May
- ACIAR and AusAID review June
- ACIAR-ICARDA revision July
- ACIAR and AusAID approval Aug



Conclusions on achievements

- crop R & D program constrained by extremely dry year in Iraq – some testing under SI
- ZT continued to be much better than CC in all ICARDA situations
- continued promise of oats and peas as rotation crops at ICARDA
- highly promising initiation of local manufacture of ZT seeders in Iraq and Syria
- excellent study/training visit by project leaders to Australia
- delivery of final capital purchase (seed cleaners) to Mosul
- highly successful external review
- highly successful planning and proposal for follow-on project
- approval and inception of follow-on project (A\$4.7 mill)