

**Better crop germplasm and
management for improved production
of wheat, barley and pulse and forage
legumes in Iraq**

**Legume Demonstration
Component**

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**IRAQ-ICARDA-ACIAR Project
(CIM/2004/024)**

Objective

**To introduce legumes for increased productivity
of cereal-based cropping systems**

Table 1. The amount of rainfall (mm) and its monthly distribution at different locations in Northern Iraq for the growing season 2005/2006

Locations	Months								
	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May.	Total
Tel –abta	-	8	7	85	100	10	62	-	272.0
Mabalabia	-	30	21	165	114	16	88	-	434.0
Hatra	-	15.5	11	64	84	4	59	-	237.5
Hamdanyia	-	5	28	142	184	27	162	-	548.0
Bashiqa	-	20	34	103	108	10	74	-	349.0
Telkeif	-	24.5	43	142	142	21.5	89.5	-	462.5
Namroud	-	25	17.5	102	112.5	10	114	9	390.0
Rabiaa	-	14	25	91.5	82.5	12	52	-	277.0
Homedat	-	18	27	124	119	23	80	-	391.0
Zammar	-	18	27	111	101	17	67	-	341.0
Mosul Centre	-	6	37	145	126	23	101	-	438.0
Shekhan	-	27	104	253	225	22	221	-	852
Alkosh	-	23	57.5	143.5	134	28.5	119	-	505.5

*Source: Nenevah Agric

**Table 2a. Mean of plant height (cm) and number of branches or tillers/
plant of barley/ Vetch mixture**

	Locations								
	Tel-abta (272 mm)			Hatra (237.5 mm)			Mahalabia (434 mm)		
Character	Barley	V. s.	V. d. Couhak	Barley	V. s. IPA 2001	V. d. Couhak	Barley	V. s. IPA 2001	V. n. Velox
Plant height	40	15	17	50	33	28	50	25	63
No. branches/ plant	4	1	3	4	2	3	5	2	2

V. n. = Vicia narbonensis, V. s. = Vicia sativa, V. d. = Vicia dasycarpa

Table 2b. Mean of dry matter yields (Kg/ha) of barley/vetch mixture and its utilization at three locations under limited rainfall (200-350mm) for the growing season 2005/2006

Characters	Locations		
	Tel – abta (272 mm)	Hatra (237.5 mm)	Mahalabia (434 mm)
Dry matter	(barley + V. s. IPA2001) 1062	(barley + V. s. IPA2001) 1880	(barley + V. s. IPA2001) 1790
	(barley + couhak) 1840	(barley + V. s. 713) 1330	(barley + V. n. Velox) 1812
Utilization	Sheep grazing	Sheep grazing	Sheep grazing

Table 3a. Mean of height of plant (cm) and number of branches or tillers/plant of barley/vetch mixture

Characters	Location			
	Hamdaniya		Telkeif	
	Barley	V. s. (IPA2001)	Barley	V.s. (I PA2001)
Height of plant	68	59	74	65
No. branches/ plant	2	2	4	3

Table 3b. Mean of dry matter and seed yields (Kg/ha) of barley/vetch at two locations under moderate rainfall (350 – 450 mm) for the growing season 2005/2006

Characters	Locations	
	Hamdaniya (548 mm)	Telkeif (462.5 mm)
Dry matter	(barley + V.s. IPA2001) 4528	(barley + V.s. IPA2001) 5180
Seed yield	(mixture) 1280	(mixture) delay in harvesting 600

Table 4a. Mean of plant height (cm) and number of branches/plant of Vetch and Lathyrus at three locations under moderate rainfall (350 – 450mm) in 2005/2006

Characters	Location				
	Bashiqa (349 mm)		Hamdaniya (548 mm)	Telkeif (462.5 mm)	
	V. s. IPA 2001	V. n. velox	V. d. couhak	L.s. 587	L. s. Ali-bar
Plant height	65	75	90	76	62
No. branches/ plant	2	1	2	2	2

L. s. Lathyrus sativus, *V. s. Vicia sativa*, *V. n. Vicia narbonensis*, *V. d. = Vicia dasycarpa*

Table 4b. Mean of dry matter and seed yields (Kg/ha) of Vetch and Lathyrus at three locations under moderate rainfall (350 – 450mm) for the growing season 2005/2006

Characters	Locations					
	Bashiqa (349 mm)		Hamdaniya (548mm)		Telkeif (462.5 mm)	
	V. s. IPA 2001	V. n. velox	V. d. couhak		L. s. 587	L .s. Ali-bar
Dry matter	5726	5228	3621		4276	4020
Seed yield	820	700	1700		1080	1040

L. s. Lathyrus sativus, V. s. Vicia sativa, V . s. Vicia narbonensis, V. d. = Vicia dasycarpa

Table 5. Mean biological yield, seed yield [Kg/ha] and 100 seed weight [g] for Ghab 1, 2, 3 & 4 at Hamdaniya for the growing season 2005/2006

	Demonstrated method			Farmer's method		
Cultivar	Biological Yield	Seed Yield	100-Seed Weight	Biological Yield	Seed Yield	100-Seed Weight
Ghab 1	7247	3045	26.6	3682	1446	25.5
Ghab 2	4337	1680	25.1	4571	1891	25.5
Ghab 3	7410	3474	25.1	5307	1771	25.8
Ghab 4	8186	3923	26.2	8664	4185	27.9

Table 6. Mean biological and seed yields (Kg/ha), and 100 seed weight (g) for Ghab 4 and Dijla at Tel Kief for the growing season 2005/2006

	Demonstrated method			Farmer's method		
Cultivar	Biol. yield	Seed yield	100-seed weight	Biol. yield	Seed yield	100-seed weight
Ghab 4	3679	1869	27.6	3106	1574	25.9
Dijla	3266	1302	23.4	2980	1271	23.0

Table 7. Mean biological and seed yield (Kg/ha) and weight of 100 seeds (g) of chickpeas cv. IPA 510 at Al-Kosh and Al-Shekhan for the growing season 2005/2006

Cultivar	Al-Kosh (505.5 mm)			AL-Shekhan (852 mm)		
	Biological yield	Seed yield	Wt.100 seed	Biological yield	Seed yield	Wt.100 seed
IPA 510	4326	1217	30.9		680	
Dijla					720	
Ghab4					770	

Table 8. Mean seed yield (Kg/ha) of lentil cultivars at Bashiqa , Telkeif and Hamdaniya for the growing season 2005/2006

Cultivars	Locations		
	Bashiqa (349 mm)	Telkeif (462.5 mm)	Hamdaniya (548 mm)
IPA98	536	960	436
Idleb 3	520	840	---
Baraka	---	---	776

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