



Mapping world chickpea research published during 2001-2010

**Databases used: *Web of Science – SCIE and
CAB Abstracts (WoS platform)***

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Databases used: *Web of Science – SCIE* and *CAB Abstracts (WoS platform)*

Keywords used: "Chickpea OR "chick pea*" OR "chick-pea*" OR "Cicer Ari*" OR "Bengal Gram" OR bengalgram"

Search field(s): Title

Date of data collection: 20 April 2013

Web of Science – SCIE : Total records 1456, of which 1375 are journal papers
CAB Abstracts : Total records 3157, of which 3038 are journal papers

In this study only the 1375 and 3038 journal papers gathered respectively from WoS-SCIE and CAB Abstracts are considered for analysis.

18 tables and one vendiagram

Table 1. Chickpea research papers published in journals during 2001-2010 – Data as seen from *WoS-SCIE* and *CAB Abstracts*

Year	Web of Science - SCIE			CAB Abstracts	
	No. of journals	No. of papers	Sum of citations	No. of journals	No. of papers
2001	56	78	1117	115	213
2002	56	84	1604	123	250
2003	66	110	1709	126	272
2004	60	98	1371	129	251
2005	75	137	1560	160	363
2006	87	141	1501	160	312
2007	92	162	1292	168	328
2008	104	176	1273	183	358
2009	104	190	895	179	324
2010	109	199	693	189	367
		1375	13015		3038

Fig 1. Coverage of world chickpea research published in journals in two databases during 2001-2010

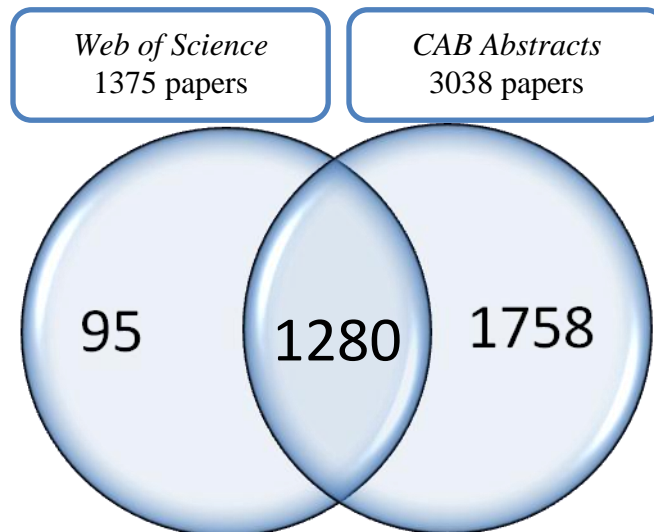


Table 2. Chickpea research papers published during 2001-2010 classified by journals (with at least 10 papers) – Data as seen from *WoS – SCIE*

Journals	Publishing country	Impact factor	No. of papers	No. of cited papers	Sum of citations	Cites per paper
Pakistan Journal of Botany	Pakistan	0.947	77	64	274	3.56
Indian Journal of Agricultural Sciences	India	0.156	53	22	47	0.89
Canadian Journal of Plant Science	Canada	0.547	35	30	188	5.37
Euphytica	Netherlands	1.597	32	32	450	14.06
Legume Research	India	0.130	32	1	1	0.03
Journal of the Science of Food and Agriculture	USA	1.360	29	26	317	10.93
Theoretical and Applied Genetics	USA	3.264	29	29	991	34.17
Food Chemistry	England	3.458	27	26	694	25.70
African Journal of Biotechnology	Nigeria	0.573	25	20	85	3.40
Crop Science	USA	2.020	25	18	159	6.36
Field Crops Research	Netherlands	2.232	24	24	460	19.17
Australian Journal of Agricultural Research	Australia	1.328	20	19	274	13.70
Journal of Agronomy and Crop Science	USA	1.952	19	19	196	10.32
Plant and Soil	Netherlands	2.773	17	16	318	18.71
Plant Disease	USA	2.387	17	16	104	6.12
Journal of Food Science and Technology- Mysore	India	0.477	16	11	28	1.75
Journal of Food Engineering	England	2.168	15	15	282	18.80
Journal of Plant Nutrition	USA	0.726	15	14	81	5.40
Plant Pathology	England	2.237	15	15	134	8.93
Australasian Plant Pathology	Australia	0.781	13	13	90	6.92
Indian Journal of Genetics and Plant Breeding	India	0.141	13	3	4	0.31
Plant Breeding	Germany	1.391	13	11	76	5.85
Biologia Plantarum	Netherlands	1.582	12	12	98	8.17
Current Science	India	0.897	12	11	77	6.42
European Journal of Plant Pathology	Netherlands	1.575	12	10	57	4.75
Food Research International	Netherlands	2.416	12	12	135	11.25
International Journal of Food Science and Technology	USA	1.223	12	12	105	8.75
Australian Journal of Crop Science	Australia	0.899	11	11	57	5.18
Genetic Resources and Crop Evolution	Netherlands	1.538	11	11	86	7.82
Phytopathology	USA	2.428	11	11	122	11.09
Plant Physiology and Biochemistry	France	2.402	11	10	154	14.00
Agricultural Water Management	Netherlands	1.782	10	8	119	11.90
Agronomy Journal	USA	1.797	10	9	81	8.10
Journal of Plant Physiology	Germany	2.677	10	9	75	7.50
Turkish Journal of Agriculture and Forestry	Turkey	0.675	10	9	40	4.00
31 journals with 5-9 papers			216	181	1974	9.14
108 journals with 2-4 papers			280	239	2990	10.69
174 journals with 1 paper each			174	153	1592	9.15
Total 348 journals			1375	1152	13015	9.47

Table 3. Chickpea research papers published during 2001-2010 classified by impact factor from *Journal Citation Reports* 2010

IF range of journals	No. of journals (WoS)	No. of papers (WoS)	No. of cited papers	Sum of citations	Cites per paper
0	19	48	33	208	4.33
0.001 - 0.499	50	217	94	260	1.20
0.500 - 0.999	70	333	284	1653	4.96
1.000 - 1.499	47	163	150	1554	9.53
1.500 - 1.999	54	207	197	2203	10.64
2.000 - 2.499	41	200	191	2713	13.57
2.500 - 2.999	20	64	61	910	14.22
3.000 - 3.499	19	93	92	2344	25.20
3.500 - 3.999	7	8	8	176	22.00
4.000 - 4.499	7	13	13	343	26.38
4.500 - 6.499	10	22	22	469	21.32
6.500 - 8.999	4	7	7	182	26.00
Total	348	1375	1152	13015	9.47

Table 4. Country of publication of journals used by world chickpea researchers during 2001-2010 – Data as seen from *WoS -SCIE*

Country	No. of journals	No. of papers	No. of cited papers	Sum of citations	Cites per paper
USA	86	328	301	4154	12.66
England	75	218	207	3224	14.79
Netherlands	47	199	190	2682	13.48
India	26	193	74	247	1.28
Pakistan	7	87	73	302	3.47
Germany	24	68	63	471	6.93
Australia	7	61	57	606	9.93
Canada	4	47	42	352	7.49
Nigeria	5	32	23	93	2.91
France	6	23	22	278	12.09
Turkey	5	16	15	74	4.63
Switzerland	8	13	13	86	6.62
Italy	4	11	10	45	4.09
Czech Republic	5	7	7	57	8.14
Ireland	1	7	7	105	15.00
Japan	5	7	6	62	8.86
Bangladesh	1	6	4	5	0.83
Spain	3	6	5	21	3.50
Iran	2	5	2	13	2.60
New Zealand	2	4	2	8	2.00
Norway	1	4	4	9	2.25
Romania	2	4	4	7	1.75
Austria	2	3	3	24	8.00
Bulgaria	2	3	0	0	0.00
Finland	2	3	2	2	0.67
Chile	1	2	2	14	7.00
Denmark	1	2	2	9	4.50
Israel	1	2	1	3	1.50
U Arab Emirates	1	2	2	8	4.00
Argentina	1	1	0	0	0.00
Brazil	1	1	1	5	5.00
Egypt	1	1	0	0	0.00
Mexico	1	1	1	2	2.00
Peoples R china	1	1	1	13	13.00
Philippines	1	1	0	0	0.00
Poland	1	1	1	1	1.00
Scotland	1	1	1	2	2.00
South Korea	1	1	1	5	5.00
Taiwan	1	1	1	16	16.00
Trinidad & Tobago	1	1	1	1	1.00
Venezuela	1	1	1	9	9.00
	348	1375	1152	13015	9.47

Table 5. Chickpea research papers published during 2001-2010 classified by institutions (with at least 15 papers) in the byline - Data as seen from WoS -SCIE

Institution	Country	No. of journals	No. of papers	No. of cited papers	Sum of citations	Cites per paper
International Crops Research Institute for the Semi-Arid Tropics (ICRISAT), Patancheru	India	38	75	70	1134	15.12
University of Saskatchewan, Saskatchewan	Canada	34	65	59	519	7.98
University of Western Australia, Crawley	Australia	26	59	56	1038	17.59
Agriculture and Agri-Food Canada, Ottawa	Canada	22	52	48	523	10.06
Universidad De Cordoba, Córdoba	Spain	28	51	49	765	15.00
Indian Agricultural Research Institute, New Delhi	India	31	49	38	257	5.24
Washington State University, Pullman	USA	21	46	45	747	16.24
Commonwealth Scientific and Industrial Research Organisation (CSIRO), Clayton South VIC	Australia	23	42	39	682	16.24
International Centre for Agricultural Research in the Dry Areas (ICARDA), Lebanon	Syria	19	42	35	422	10.05
Instituto De Agricultura Sostenible, Cordoba	Spain	32	41	39	599	14.61
Nuclear Institute for Agriculture and Biology, Faisalabad	Pakistan	10	35	29	122	3.49
National Agricultural Research Centre, Islamabad	Pakistan	7	32	30	210	6.56
Punjab Agricultural University, Ludhiana	India	16	31	22	186	6.00
Aligarh Muslim University, Aligarh	India	25	28	24	326	11.64
Hebrew University of Jerusalem, Jerusalem	Israel	18	26	25	508	19.54
University of Salamanca, Salamanca	Spain	14	26	23	370	14.23
Ankara University, Ankara	Turkey	19	24	22	180	7.50
CCS Haryana Agricultural University, Hisar	India	15	23	17	135	5.87
University of Agriculture Faisalabad, Faisalabad	Pakistan	16	21	19	122	5.81
Indian Institute of Pulses Research, Kanpur	India	13	19	18	177	9.32
Banaras Hindu University, Varanasi	India	14	18	15	170	9.44
Panjab University, Chandigarh	India	11	18	18	283	15.72
National Institute for Plant Genome Research, New Delhi	India	13	17	17	429	25.24
University of Agricultural Sciences, Dharwad	India	8	17	7	24	1.41
Agricultural Research Organization, Volcani Center	Israel	13	16	16	183	11.44
Quaid-I-Azam University, Islamabad	Pakistan	5	16	15	64	4.00
University of Melbourne, Melbourne	Australia	10	16	16	285	17.81
Atatürk University, Erzurum	Turkey	12	15	14	117	7.80
646 other institutions						
Total 674 institutions						

Table 6. Chickpea research papers published during 2001-2010 distributed by institutions in the byline and journal impact factor

Institution	Country	A	B	C	D	E	F	G	H	I	J	K	L	No. of papers
ICRISAT, Patancheru	India	3	9	13	28	13	1	3	1	3	1	0	0	75
University of Saskatchewan, Saskatchewan	Canada	0	27	6	14	12	0	5	0	0	0	0	1	65
University of Western Australia, Crawley	Australia	1	4	8	12	17	7	1	1	1	4	2	1	59
Agriculture and Agri-Food Canada, Ottawa	Canada	1	25	3	9	10	2	2	0	0	0	0	0	52
Universidad De Cordoba, Córdoba	Spain	0	2	5	12	21	2	7	0	0	1	0	1	51
Indian Agricultural Research Institute, New Delhi	India	18	4	7	7	6	2	0	0	0	0	0	5	49
Washington State University, Pullman	USA	0	5	9	8	12	0	10	1	1	0	0	0	46
CSIRO, Clayton South VIC	Australia	1	1	9	9	12	1	3	1	0	5	0	0	42
ICARDA, Lebenon	Syria	1	10	2	6	17	0	2	0	2	0	0	2	42
Instituto De Agricultura Sostenible, Cordobo	Spain	0	4	5	4	17	6	3	0	0	0	0	2	41
Nuclear Institute for Agriculture and Biology, Faisalabad	Pakistan	2	27	3	1	1	0	0	0	0	0	0	1	35
National Agricultural Research Centre, Islamabad	Pakistan	0	25	3	0	1	1	0	0	0	0	0	2	32
Punjab Agricultural University, Ludhiana	India	15	1	2	9	1	2	1	0	0	0	0	0	31
Aligarh Muslim University, Aligarh	India	2	11	2	6	1	2	1	0	1	0	0	2	28
Hebrew University of Jerusalem, Jerusalem	Israel	1	0	5	3	8	0	3	2	0	2	1	1	26
University of Salamanca, Salamanca	Spain	0	0	0	3	10	4	5	0	2	2	0	0	26
Ankara University, Ankara	Turkey	3	13	4	2	1	1	0	0	0	0	0	0	24
CCS Haryana Agricultural University, Hisar	India	9	2	3	4	2	2	0	0	0	0	0	1	23
University of Agriculture Faisalabad, Faisalabad	Pakistan	5	9	1	4	0	1	1	0	0	0	0	0	21
Indian Institute of Pulses Research, Kanpur	India	8	1	1	5	1	0	1	0	0	1	0	1	19
Banaras Hindu University, Varanasi	India	3	2	4	6	0	0	0	0	0	0	0	3	18
Panjab University, Chandigarh	India	0	1	2	9	0	4	1	0	0	0	0	1	18
National Institute for Plant Genome Research, New Delhi	India	0	0	0	1	2	1	3	0	2	6	2	0	17
University of Agricultural Sciences, Dharwad	India	8	6	0	2	0	0	1	0	0	0	0	0	17
Agricultural Research Organization, Volcani Center	Israel	0	1	2	4	6	0	1	1	0	1	0	0	16
Quaid-I-Azam University, Islamabad	Pakistan	0	13	1	1	0	0	0	0	0	1	0	0	16
University of Melbourne, Melbourne	Australia	0	5	2	1	2	1	3	1	1	0	0	0	16
Atatürk University, Erzurum	Turkey	2	10	1	2	0	0	0	0	0	0	0	0	15
646 other institutions														
A= 0.001- 0.499; B=0.500 - 0.999; C=1.000 - 1.499; D=1.500 - 1.999; E=2.000 - 2.499; F=2.500 - 2.999; G=3.000 - 3.499; H= 3.500 - 3.999; I= 4.000 - 4.499 J=4.400 - 6.499; K=6.500 - 8.999; L=0.000														

Table 7. Chickpea research papers published during 2001-2010 classified by countries (top 20 countries) in the byline – Data as seen from *WoS-SCIE*

Country	No. of institutions	No. of journals	No. of papers	No. of cited papers	Sum of citations	Cites per paper
India	139	169	484	353	4089	8.45
Australia	46	66	150	143	2175	14.50
Pakistan	37	43	128	112	749	5.85
Spain	37	62	123	118	1712	13.92
USA	43	60	116	108	1686	14.53
Turkey	52	70	113	98	787	6.96
Canada	29	44	105	96	1162	11.07
Iran	23	32	48	36	319	6.65
Syria	7	21	45	37	437	9.71
Peoples R China	26	28	40	39	671	16.78
England	19	28	36	35	444	12.33
Germany	22	21	32	31	615	19.22
Israel	6	24	32	31	580	18.13
Tunisia	11	20	27	23	266	9.85
Mexico	14	17	20	17	247	12.35
France	8	14	18	17	249	13.83
Italy	10	14	18	17	209	11.61
Japan	9	13	18	18	276	15.33
Bangladesh	10	10	15	12	103	6.87
Greece	11	11	15	15	99	6.60
51 more countries						

Table 8. Chickpea research papers published by Indian researchers during 2001-2010 classified by states – Data as seen from *WoS-SCIE*

State	No. of institutes	No. of journals	No. of papers	No. of cited papers	Sum of citations
Uttar Pradesh	29	69	124	88	966
Andhra Pradesh	11	49	92	80	1317
Delhi	14	54	86	71	820
Punjab	5	26	56	47	565
Karnataka	9	27	47	35	310
Haryana	7	22	31	22	213
Madhya Pradesh	11	16	28	17	107
Maharashtra	18	21	27	18	269
Gujarat	2	7	14	5	19
Rajasthan	6	11	14	8	92
West Bengal	7	13	13	11	156
Uttarakhand	4	7	10	6	37
Himachal Pradesh	2	8	9	6	59
Assam	3	6	7	6	41
Tamil Nadu	4	4	5	3	23
Chhattisgarh	2	3	3	2	10
Jammu and Kashmir	2	3	3	2	5
Jharkhand	2	2	3	0	0
Kerala	1	1	1	1	7

Table 9. Chickpea research papers published during 2001-2010 classified by countries classified by WoS Subfields

Subfield	No. of journals	No. of papers	No. of cited papers	Sum of citations	Cites/paper
Plant Sciences	82	544	486	5565	10.23
Agronomy	46	413	338	4354	10.54
Food Science & Technology	42	191	171	2179	11.41
Agriculture, Multidisciplinary	27	168	120	1093	6.51
Biotechnology & Applied Microbiology	34	101	87	905	8.96
Horticulture	8	86	82	1596	18.56
Chemistry, Applied	15	83	78	1359	16.37
Genetics & Heredity	16	65	55	1400	21.54
Biochemistry & Molecular Biology	34	58	54	709	12.22
Soil Science	12	49	45	624	12.73
Nutrition & Dietetics	15	47	45	915	19.47
Microbiology	18	42	38	442	10.52
Environmental Sciences	14	37	34	476	12.86
Engineering, Chemical	7	24	23	344	14.33
Entomology	16	20	14	90	4.50
Meteorology & Atmospheric Sciences	6	17	10	94	5.53
Multidisciplinary Sciences	5	16	13	91	5.69
Agriculture, Dairy & Animal Science	9	14	12	94	6.71
Forestry	2	14	13	116	8.29
Water Resources	5	14	12	210	15.00
Chemistry, Multidisciplinary	6	13	9	45	3.46
Ecology	10	13	12	101	7.77
Biology	9	11	10	106	9.64
Chemistry, Analytical	4	10	7	47	4.70
54 more subfields					

Table 10. Matrix of top 7 chickpea research producing countries and the countries that they collaborate with (No. of papers , Sum of citations , Cites/Paper)

Collaborating Countries	India	Australia	Pakistan	Spain	USA	Turkey	Canada
Argentina				(1 , 15 , 15.00)			
Australia	(19 , 324 , 17.05)	(150 , 2175 , 14.50)	(4 , 66 , 16.5)	(1 , 54 , 54.00)	(13 , 251 , 19.31)		(8 , 195 , 24.38)
Bangladesh	(5 , 77 , 15.40)	(4 , 27 , 6.75)			(2 , 20 , 10.00)		(1 , 17 , 17.00)
Belgium	(1 , 2 , 2.00)	(1 , 2 , 2.00)					
Bolivia					(1 , 3 , 3.00)		
Brazil	(1 , 27 , 27.00)				(2 , 54 , 27.00)		
Canada	(5 , 112 , 22.40)	(8 , 195 , 24.38)		(2 , 74 , 37.00)	(11 , 139 , 12.64)		(105 , 1162 , 11.07)
Croatia				(1 , 16 , 16.00)			
Czech Republic	(1 , 20 , 20.00)				(1 , 17 , 17.00)		
England	(7 , 168 , 24.00)	(7 , 90 , 12.86)	(3 , 12 , 4.00)	(3 , 51 , 17.00)		(5 , 43 , 8.60)	(2 , 23 , 11.50)
Eritrea	(1 , 6 , 6.00)						
France		(2 , 45 , 22.50)		(2 , 21 , 10.50)			(1 , 18 , 18.00)
Germany	(7 , 272 , 38.86)	(3 , 81 , 27.00)	(1 , 4 , 4.00)	(3 , 86 , 28.67)	(7 , 216 , 30.86)	(2 , 25 , 12.50)	(1 , 54 , 54.00)
Greece					(1 , 17 ; 17.00)		
India	(484 , 4089 , 8.43)	(19 , 324 , 17.05)		(2 , 74 , 37.00)	(25 , 358 , 14.32)		(5 , 112 , 22.40)
Indonesia		(1 , 0 , 0.00)					
Iran	(1 , 9 , 9.00)	(10 , 97 , 9.70)			(2 , 19 , 9.50)		(1 , 2 , 2.00)
Ireland				(1 , 6 , 6.00)			
Israel	(3 , 105 , 35.00)	(9 , 222 , 24.67)		(2 , 55 , 27.50)	(6 , 159 , 26.50)	(3 , 14 , 4.67)	
Italy				(4 , 41 , 10.25)			
Japan	(8 , 99 , 12.38)	(3 , 104 , 34.67)	(1 , 3 , 3.00)		(1 , 36 , 36.00)		
Jordan					(1 , 0 , 0.00)		
Malaysia			(1 , 1 , 1.00)				
Mexico	(5 , 136 , 27.20)	(2 , 47 , 23.50)		(2 , 26 , 13.00)	(4 , 98 , 24.50)		
Morocco				(2 , 44 , 22.00)			(1 , 34 , 34.00)

Collaborating Countries	India	Australia	Pakistan	Spain	USA	Turkey	Canada
Nepal	(2, 30, 15.00)	(1, 17, 17.00)					(1, 17, 17.00)
Netherlands				(1, 18, 18.00)			
New Zealand		(3, 47, 15.67)					
Nigeria	(1, 0, 0.00)						
Oman	(2, 4, 2.00)						
Pakistan		(4, 66, 16.50)	(128, 749, 5.85)		(1, 0, 0.00)	(1, 22, 22.00)	
Peoples R China	(1, 6, 6.00)	(5, 116, 23.20)	(1, 1, 1.00)		(5, 77, 15.40)		(7, 102, 14.57)
Peru				(1, 16, 16.00)			
Philippines	(1, 24, 24.00)	(3, 113, 37.67)			(1, 15, 15.00)		
Poland			(2, 18, 9.00)	(1, 4, 4.00)			
Portugal				(2, 47, 23.50)			
Saudi Arabia	(1, 4, 4.00)						
Scotland			(1, 11, 11.00)		(1, 26, 26.00)		
Slovenia					(1, 1, 1.00)		
South Korea	(2, 118, 59.00)				(1, 35, 35.00)		
Spain	(2, 74, 37.00)	(1, 54, 54.00)		(123, 1712, 13.92)	(5, 82, 16.40)	(2, 27, 13.50)	(2, 74, 37.00)
Switzerland	(3, 22, 7.33)	(1, 8, 8.00)		(1, 10, 10.00)			
Syria	(2, 86, 43.00)	(8, 87, 10.88)	(1, 11, 11.00)		(1, 1, 1.00)	(1, 1, 1.00)	(1, 2, 2.00)
Taiwan	(1, 0, 0.00)						(1, 3, 3.00)
Tunisia		(1, 0, 0.00)		(6, 108, 18.00)			(1, 34, 34.00)
Turkey			(1, 22, 22.00)	(2, 27, 13.50)	(4, 141, 35.25)	(113, 787, 6.96)	
U Arab Emirates			(1, 5, 5.00)				
USA	(25, 358, 14.32)	(13, 251, 19.31)	(1, 0, 0.00)	(5, 82, 16.40)	(116, 1686, 14.53)	(4, 141, 35.25)	(11, 139, 12.64)
Wales	(2, 42, 21.00)	(1, 5, 5.00)	(1, 12, 12.00)		(1, 5, 5.00)		

Table 11.1 International Crops Research Institute for the Semi-Arid Tropics, Patancheru, India
 Local papers: 28 papers, 404 citations 14.43 cites per paper
 Collaborative papers: 47 papers, 730 citations 15.53 cites per paper

Collaborating institutions	Country	No. of papers	Sum of citations	Cites per paper
University of Western Australia	Australia	9	238	26.44
Bangladesh Agricultural Research Institute	Bangladesh	4	40	10.00
CIMMYT International Maize and Wheat Improvement Center	Mexico	4	109	27.25
Indian Institute of Pulses Research, Kanpur	India	4	85	21.25
Jawaharlal Nehru Agricultural University, Madhya Pradesh	India	4	43	10.75
Panjab University, Chandigarh	India	4	29	7.25
Acharya N G Ranga Agricultural University, Hyderabad	India	3	45	15.00
Commonwealth Scientific and Industrial Research Organisation (CSIRO)	Australia	3	52	17.33
Pvt Address	Australia	3	23	7.67
Agriculture and Agri-Food Canada	Canada	2	25	12.50
Department of Agriculture and Food Wa	Australia	2	3	1.50
Hokkaido University	Japan	2	46	23.00
Indian Agricultural Research Institute, New Delhi	India	2	35	17.50
International Centre for Agricultural Research in the Dry Areas	Syria	2	86	43.00
Mahatma Phule Krishi Vidyapeeth, Rahuri	India	2	33	16.50
Nepal Agricultural Research Council	Nepal	2	30	15.00
Osmania University, Hyderabad	India	2	35	17.50
People's Resource Oriented Voluntary Association	Bangladesh	2	42	21.00
Punjab Agricultural University, Ludhiana	India	2	3	1.50
University of New Hampshire	USA	2	15	7.50
University of Wales	Wales	2	42	21.00
Washington State University	Usa	2	43	21.50
Anand Agricultural University, Anand	India	1	2	2.00
Assam Agricultural University	India	1	10	10.00
Bose Institute, Kolkatta	India	1	10	10.00
CCS Haryana Agricultural University, Hisar	India	1	30	30.00
Cornell University	Usa	1	5	5.00
CSK Himachal Pradesh Agricultural University, Palampur	India	1	2	2.00
Department of Primary Industries	Australia	1	52	52.00
Dong-A University	South Korea	1	35	35.00
Dr. Y. S. Parmar University of Horticulture and Forestry, Solan	India	1	12	12.00

Table 11.1 International Crops Research Institute for the Semi-Arid Tropics, Patancheru, India
 Local papers: 28 papers, 404 citations 14.43 cites per paper
 Collaborative papers: 47 papers, 730 citations 15.53 cites per paper

Collaborating institutions	Country	No. of papers	Sum of citations	Cites per paper
Dryland Agricultural Research Institute	Iran	1	9	9.00
Frankfurt Biotechnology Innovation Center	Germany	1	54	54.00
G. B. Pant University of Agriculture and Technology, Pantnagar	India	1	17	17.00
GENXPRO GmbH	Germany	1	35	35.00
Goethe University Frankfurt	Germany	1	35	35.00
Gujarat Agricultural University	India	1	10	10.00
Hebrew University of Jerusalem	Israel	1	69	69.00
Hendrick Beans-For-Health Research Foundation, Inkerman	Canada	1	54	54.00
Hill Agricultural Research and Extension Centre, Dhaulakuan	India	1	17	17.00
Indira Gandhi Agricultural University, Raipur	India	1	9	9.00
Institute for Agriculture and Fisheries Research, Merelbeke	Belgium	1	2	2.00
Institute for Pulse and Oilseeds Research, Gulbarga	India	1	30	30.00
International Rice Research Institute, Manila	Philippines	1	24	24.00
J Craig Venter Institute	USA	1	36	36.00
National Center for Agricultural Economics and Policy Research, New Delhi	India	1	10	10.00
National Chemical Laboratory, Pune	India	1	31	31.00
National Research Centre on Plant Biotechnology, New Delhi	India	1	36	36.00
Rajasthan Agricultural University, Bikaner	India	1	30	30.00
Sri Guru Ram Rai Post Graduate College, Dehradun	India	1	13	13.00
Sri Venkateswara University, Tirupati	India	1	24	24.00
Swiss Federal Research Station for Agroecology and Agriculture	Switzerland	1	10	10.00
Universidad De Cordoba	Spain	1	54	54.00
University of Agricultural Sciences, Dharwad	India	1	2	2.00
University of California Davis	USA	1	35	35.00
University of Colorado	USA	1	5	5.00
University of Ghent	Belgium	1	2	2.00
University of Greenwich	England	1	13	13.00
University of Hyderabad, Hyderabad	India	1	2	2.00
University of Kentucky	USA	1	35	35.00
University of Melbourne	Australia	1	17	17.00
University of Saskatchewan	Canada	1	13	13.00
University of Sussex	England	1	11	11.00
Western Australian Department of Agriculture	Australia	1	17	17.00
Total = 64				

Table 11.2 University of Saskatchewan, Canada
 Local Papers: 29 papers, 199 citations, 6.86 cites per paper
 Collaborative papers: 36 papers, 320 citations, 8.89 cites per paper

Collaborating institutions	Country	No. of papers	Sum of citations	Cites per paper
Agriculture and Agri-Food Canada	Canada	23	185	8.04
Alberta Agriculture Food and Rural Development	Canada	2	13	6.50
Bayer Cropscience	Canada	2	14	7.00
Memorial University of Newfoundland	Canada	2	38	19.00
Mississippi State University	USA	2	17	8.50
University of Western Australia	Australia	2	31	15.50
Alberta Innovates Bio Solutions	Canada	1	5	5.00
Brandon University	Canada	1	11	11.00
Canada-Saskatchewan Irrigation Diversification Centre	Canada	1	18	18.00
Canadian Grain Commission	Canada	1	14	14.00
Gansu Agricultural University	Peoples R China	1	18	18.00
Institut National De La Recherche Agronomique	France	1	18	18.00
International Centre for Agricultural Research in the Dry Areas	Syria	1	2	2.00
International Crops Research Institute for the Semi-Arid Tropics, Hyderabad	India	1	13	13.00
International Plant Nutrition Institute, Saskatoon	Canada	1	1	1.00
Isfahan University of Technology	Iran	1	2	2.00
Montana State University	USA	1	12	12.00
National Chemical Laboratory, Pune	India	1	20	20.00
Philom Bios Inc	Canada	1	15	15.00
Pvt Address	Canada	1	1	1.00
Scott Experimental Farm	Canada	1	6	6.00
Taiwan Agricultural Research Institute	Taiwan	1	3	3.00
Universidad De Cordoba	Spain	1	20	20.00
University of Alberta	Canada	1	5	5.00
University of California Davis	USA	1	14	14.00
University of Florida	USA	1	4	4.00
University of Guelph	Canada	1	1	1.00
Washington State University	USA	1	20	20.00
Total = 28				

Table 11.3 University of Western Australia, Australia
 Local papers: 10 papers, 212 citations, 21.2 cites per paper
 Collaborative papers: 49 papers, 826 citations, 16.86 cites per paper

Collaborating institutions	Country	No. of papers	Sum of citations	Cites per paper
Commonwealth Scientific and Industrial Research Organisation (CSIRO)	Australia	16	276	17.25
International Crops Research Institute for the Semi-Arid Tropics, Hyderabad	India	9	238	26.44
Department Of Agriculture and Food Wa	Australia	8	80	10.00
Western Australian Department of Agriculture	Australia	8	135	16.88
Hebrew University of Jerusalem	Israel	5	124	24.80
International Centre for Agricultural Research in the Dry Areas	Syria	4	64	16.00
CCS Haryana Agricultural University, Hisar	India	3	38	12.67
Indian Institute of Pulses Research, Kanpur	India	3	63	21.00
University Of Adelaide	Australia	3	46	15.33
Agriculture and Agri-Food Canada	Canada	2	50	25.00
Bangaladesh Agricultural Research Institute	Bangladesh	2	18	9.00
Bentley Delivery Centre	Australia	2	13	6.50
China Agricultural University	Peoples R China	2	59	29.50
CIMMYT International Maize and Wheat Improvement Center	Mexico	2	47	23.50
Department Of Primary Industries	Australia	2	58	29.00
Indian Agricultural Research Institute, New Delhi	India	2	36	18.00
Institute for Pulse and Oilseeds Research, Gulbarga	India	2	57	28.50
Jawaharlal Nehru Agricultural University, Madhya Pradesh	India	2	57	28.50
National Agricultural Research Centre, Islamabad	Pakistan	2	29	14.50
Rajasthan Agricultural University, Bikaner	India	2	57	28.50
University of Melbourne	Australia	2	23	11.50
University of Saskatchewan	Canada	2	31	15.50
University of Tehran	Iran	2	3	1.50
Victorian Department of Primary Industries	Australia	2	30	15.00
Brandon University	Canada	1	37	37.00
Chinese Academy of Agricultural Sciences	Peoples R China	1	4	4.00
Cooperative Research Centre for National Plant Biosecurity	Australia	1	6	6.00
CSBP Ltd, Western Australia	Australia	1	3	3.00
Curtin University of Technology	Australia	1	7	7.00
Ferdowsi University of Mashhad	Iran	1	0	0.00
Frankfurt Biotechnology Innovation Center	Germany	1	54	54.00

Table 11.3 University of Western Australia, Australia
 Local papers: 10 papers, 212 citations, 21.2 cites per paper
 Collaborative papers: 49 papers, 826 citations, 16.86 cites per paper

Collaborating institutions	Country	No. of papers	Sum of citations	Cites per paper
G. B. Pant University of Agriculture and Technology, Pantnagar	India	1	17	17.00
George Mason University	USA	1	6	6.00
Hendrick Beans-For-Health Research Foundation, Inkerman	Canada	1	54	54.00
Hill Agricultural Research and Extension Centre, Dhaulakuan	India	1	17	17.00
Hokkaido University	Japan	1	36	36.00
Institut National De La Recherche Agronomique	France	1	18	18.00
Institute of Plant Nutrition	Germany	1	27	27.00
International Rice Research Institute, Manila	Philippines	1	24	24.00
J Craig Venter Institute	USA	1	36	36.00
La Trobe University	Australia	1	21	21.00
Lanzhou University	Peoples R China	1	18	18.00
Massey University	New Zealand	1	17	17.00
National Research Centre on Plant Biotechnology, New Delhi	India	1	36	36.00
Nepal Agricultural Research Council	Nepal	1	17	17.00
NSW Agriculture	Australia	1	25	25.00
Pvt Address	Australia	1	1	1.00
QDPI Hermitage Research Stations	Australia	1	25	25.00
Sardi Minnipa Agricultural Centre	Australia	1	25	25.00
South Australian Research and Development Institute	Australia	1	5	5.00
Tamworth Agricultural Institute	Australia	1	5	5.00
Universidad De Cordoba	Spain	1	54	54.00
University of Haifa	Israel	1	20	20.00
University of Oxford	England	1	27	27.00
University of Sussex	England	1	11	11.00
Universitat Würzburg	Germany	1	27	27.00
Universite De Rennes 1	France	1	27	27.00
Wollongbar Agricultural Institute	England	1	16	16.00
Total = 58				

11.4 Agriculture and Agri-food Canada, Canada
 Local papers: 8 papers, 77 citations, 9.63 cites per paper
 Collaborative papers: 44 papers, 10.14 cites per paper

Collaborating institutions	Country	No. of papers	Sum of citations	Cites per paper
University of Saskatchewan	Canada	23	185	8.04
Alberta Agriculture Food and Rural Development	Canada	5	30	6.00
Gansu Agricultural University	Peoples R China	5	84	16.80
Montana State University	USA	5	72	14.40
University of Alberta	Canada	3	16	5.33
Alberta Innovates Bio Solutions	Canada	2	14	7.00
Alberta Research Council	Canada	2	14	7.00
Bayer Cropscience	Canada	2	14	7.00
Institute of Desert Meteorology	Peoples R China	2	18	9.00
International Crops Research Institute for the Semi-Arid Tropics, Hyderabad	India	2	25	12.50
Memorial University of Newfoundland	Canada	2	38	19.00
Scott Experimental Farm	Canada	2	9	4.50
University of Western Australia	Australia	2	50	25.00
Western Australian Department of Agriculture	Australia	2	50	25.00
Agriculture and Rural Development	Canada	1	2	2.00
Bangladesh Agricultural Research Institute	Bangladesh	1	17	17.00
Canada-Saskatchewan Irrigation Diversification Centre	Canada	1	18	18.00
Crop Development Centre, Saskatoon	Canada	1	34	34.00
Crop Diversification Centre North	Canada	1	8	8.00
Crop Diversification Centre South	Canada	1	8	8.00
Environment Canada	Canada	1	0	0.00
G. B. Pant University of Agriculture and Technology, Pantnagar	India	1	17	17.00
Grain Research Laboratory	Canada	1	3	3.00
Hill Agricultural Research and Extension Centre, Dhaulakuan	India	1	17	17.00
International Plant Nutrition Institute, Saskatoon	Canada	1	1	1.00
McGill University	Canada	1	32	32.00
Nepal Agricultural Research Council	Nepal	1	17	17.00
Pvt Address	Canada	1	1	1.00
Saskatchewan Agriculture	Canada	1	2	2.00
Taiwan Agricultural Research Institute	Taiwan	1	3	3.00
University of Guelph	Canada	1	1	1.00
University of Melbourne	Australia	1	17	17.00
Total = 32				

Table 11.5 Universidad de Cordoba, Spain
 Local papers: 7 papers, 65 citations, 9.23 cites per paper
 Collaborative papers: 44 papers, 700 citations, 15.91 cites per paper

Collaborating institutions	Country	No. of papers	Sum of citations	Cites per paper
Instituto De Agricultura Sostenible, Cordoba	Spain	20	289	14.45
Instituto De Investigación Y Formación Agraria Y Pesquera	Spain	13	170	13.08
Centro De Investigación Y Formación Agraria	Spain	8	186	23.25
Institut National De Recherche Agronomique De Tunis	Tunisia	6	108	18.00
University of Castilla-La Mancha	Spain	4	26	6.50
Faculté Des Sciences De Tunis	Tunisia	2	12	6.00
Genxpro Gmbh	Germany	2	32	16.00
Instituto Nacional De Investigaciones Forestales, Agrícolas Y Pecuarias	Mexico	2	26	13.00
National Research Council, Bari	Italy	2	10	5.00
Pennsylvania State University	Usa	2	33	16.50
Universidad De Huelva	Spain	2	20	10.00
Universidad De Sevilla	Spain	2	19	9.50
University of Extremadura	Spain	2	20	10.00
Washington State University	Usa	2	41	20.50
Agricultural Research Organization	Israel	1	6	6.00
Autonomous University of Madrid	Spain	1	2	2.00
Frankfurt Biotechnology Innovation Center	Germany	1	54	54.00
Goethe University Frankfurt	Germany	1	21	21.00
Hebrew University of Jerusalem	Israel	1	6	6.00
Hendrick Beans-for-Health Research Foundation, Inkerman	Canada	1	54	54.00
International Crops Research Institute for the Semi-Arid Tropics, Hyderabad	India	1	54	54.00
National Chemical Laboratory, Pune	India	1	20	20.00
University College London	England	1	22	22.00
University of Ondokuz Mayıs	Turkey	1	21	21.00
University of Salamanca	Spain	1	15	15.00
University of Saskatchewan	Canada	1	20	20.00
University of Western Australia	Australia	1	54	54.00
University of Zagreb	Croatia	1	16	16.00
Total = 28				

Table 11.6 Indian Agricultural Research Institute, New Delhi, India
 Local papers: 30 papers, 141 citations, 4.10 cites per paper
 Collaborative papers: 19 papers, 116 citations, 6.11 cites per paper

Collaborating institutions	Country	No. of papers	Sum of citations	Cites per paper
Commonwealth Scientific and Industrial Research Organisation (CSIRO)	Australia	3	44	14.67
Banaras Hindu University, Varanasi	India	2	21	10.50
CCS Haryana Agricultural University, Hisar	India	2	36	18.00
International Crops Research Institute for the Semi-Arid Tropics, Hyderabad	India	2	35	17.50
University of Western Australia	Australia	2	36	18.00
Amar Singh College, Srinagar	India	1	0	0.00
Assam Agricultural University, Jorhat	India	1	8	8.00
Auburn University	USA	1	8	8.00
Central Marine Fisheries Research Institute, Kochi	India	1	7	7.00
Central Sheep and Wool Research Institute, Avikanagar	India	1	0	0.00
Chaudhary Charan Singh University, Meerut	India	1	3	3.00
George Mason University	USA	1	6	6.00
Indian Grassland and Fodder Research Institute, Jhansi	India	1	0	0.00
Indian Institute of Pulses Research, Kanpur	India	1	30	30.00
Institute for Pulse and Oilseeds Research, Gulbarga	India	1	30	30.00
Jamia Hamdard, New Delhi	India	1	1	1.00
Jawaharlal Nehru Agricultural University, Madhya Pradesh	India	1	30	30.00
National Bureau of Agriculturally Important Microorganisms, Mau Nath Bhanjan	India	1	8	8.00
National Research Centre on Plant Biotechnology, New Delhi	India	1	4	4.00
Potash Research Institute of India, Gurgaon	India	1	11	11.00
Rajasthan Agricultural University, Bikaner	India	1	30	30.00
Sardar Vallabhbhai Patel University of Agriculture and Technology, Meerut	India	1	0	0.00
Shri Murli Manohar Town PG College, Ballia	India	1	16	16.00
Tata Energy Research Institute, New Delhi	India	1	0	0.00
Tufts University	USA	1	0	0.00
University of Colorado	USA	1	5	5.00
University of Kentucky	USA	1	12	12.00
Total = 27				

Table 11.7 Washington State University
Local papers: 20 papers, 281 citations, 14.05 cites per paper
Collaborative papers: 26 papers, 466 citations, 17.92 cites per paper

Collaborating institutions	Country	No. of papers	Sum of citations	Cites per paper
Washington State University	USA	26	466	17.92
National Chemical Laboratory, Pune	India	5	90	18.00
University of Frankfurt	Germany	4	118	29.50
University of California Davis	USA	3	20	6.67
CSK Himachal Pradesh Agricultural University, Palampur	India	2	50	25.00
International Crops Research Institute for the Semi-Arid Tropics, Hyderabad	India	2	43	21.50
Royal Melbourne Institute of Technology University	Australia	2	44	22.00
Universidad De Cordoba	Spain	2	41	20.50
Universidade Federal De Pernambuco	Brazil	2	54	27.00
University of Melbourne	Australia	2	44	22.00
Agricultural Institute of Slovenia	Slovenia	1	1	1.00
Agricultural Research Organization	Israel	1	8	8.00
Bharati Vidyapeeth University, Pune	India	1	10	10.00
Colegio Posgrad	Mexico	1	27	27.00
Genxpro GMBH	Germany	1	21	21.00
Goethe University Frankfurt	Germany	1	21	21.00
Hebrew University of Jerusalem	Israel	1	8	8.00
Indian Institute of Pulses Research, Kanpur	India	1	27	27.00
Instituto De Investigación Y Formación Agraria Y Pesquera	Spain	1	21	21.00
International Centre for Agricultural Research in the Dry Areas	Syria	1	1	1.00
North Dakota State University	USA	1	2	2.00
Northwest Agriculture and Forestry University, Yangling	Peoples R China	1	20	20.00
Punjab Agricultural University, Ludhiana	India	1	20	20.00
Pvt. Address	Bolivia	1	3	3.00
United States Department of Agriculture	USA	1	3	3.00
Universidad De Barcelona	Spain	1	8	8.00
Universitat De Lleida	Spain	1	8	8.00
University of Gaziantep	Turkey	1	8	8.00
University of Idaho	USA	1	3	3.00
University of Illinois	USA	1	26	26.00
University of Minnesota	USA	1	62	62.00
University of Oklahoma	USA	1	8	8.00
University of Ondokuz Mayıs	Turkey	1	21	21.00
University of Saskatchewan	Canada	1	20	20.00
Total = 34				

Table 11.8 Commonwealth Scientific and Industrial Research Organisation (CSIRO)

Local papers: 3 papers, 23 citations, 7.33

Collaborative papers: 39 papers, 659 citations, 16.90 cites per paper

Collaborating institutions	Country	No. of papers	Sum of citations	Cites per paper
University of Western Australia	Australia	16	276	17.25
Hebrew University of Jerusalem	Israel	6	189	31.50
Gorgan University of Agricultural Sciences and Natural Resources	Iran	5	73	14.60
NSW Agriculture	Australia	5	89	17.80
Indian Agricultural Research Institute, New Delhi	India	3	44	14.67
Indian Institute of Pulses Research, Kanpur	India	3	63	21.00
International Crops Research Institute for the Semi-Arid Tropics, Hyderabad	India	3	52	17.33
Assam Agricultural University, Jorhat	India	2	16	8.00
CCS Haryana Agricultural University, Hisar	India	2	36	18.00
Institute for Pulse and Oilseeds Research, Gulbarga	India	2	57	28.50
Jawaharlal Nehru Agricultural University, Jabalpur	India	2	57	28.50
Massey University	New Zealand	2	36	18.00
Rajasthan Agricultural University, Bikaner	India	2	57	28.50
Texas A&M University	USA	2	85	42.50
University of Tehran	Iran	2	3	1.50
Western Australian Department of Agriculture	Australia	2	60	30.00
Agricultural Production Systems Research Unit, Toowoomba	Australia	1	8	8.00
Agricultural Research Organization	Israel	1	22	22.00
Agriculture Research Institute, Tarnab	Pakistan	1	31	31.00
Agroscope, Zurich	Switzerland	1	8	8.00
Auburn University	USA	1	8	8.00
Australia and Michael Castor and Associates	Australia	1	7	7.00
Australian National University	Australia	1	29	29.00
Bangladesh Institute of Nuclear Agriculture	Bangladesh	1	4	4.00
Department of Agriculture and Food WA	Australia	1	25	25.00
Dr. Y. S. Parmar University of Horticulture and Forestry, Solan	India	1	12	12.00
Ferdowsi University of Mashhad	Iran	1	0	0.00
George Mason University	USA	1	6	6.00
Hokkaido University	Japan	1	29	29.00
Institute of Plant Nutrition	Germany	1	27	27.00
Lancaster University	England	1	6	6.00
Michael Castor and Associates	Australia	1	5	5.00
Murdoch University	Australia	1	22	22.00
National Agricultural Research Centre, Islamabad	Pakistan	1	6	6.00
QDPI Hermitage Research Stations	Australia	1	25	25.00
Sardi Minnipa Agricultural Centre	Australia	1	25	25.00

Table 11.8 Commonwealth Scientific and Industrial Research Organisation (CSIRO)
 Local papers: 3 papers, 23 citations, 7.33
 Collaborative papers: 39 papers, 659 citations, 16.90 cites per paper

Collaborating institutions	Country	No. of papers	Sum of citations	Cites per paper
University of Adelaide	Australia	1	12	12.00
University of California, San Diego	USA	1	41	41.00
University of Melbourne	Australia	1	31	31.00
University of New England	Australia	1	12	12.00
University of Oxford	England	1	27	27.00
University of Queensland	Australia	1	28	28.00
University of Tokyo	Japan	1	29	29.00
Universität Würzburg	Germany	1	27	27.00
Université De Rennes 1	France	1	27	27.00
Victorian Department of Primary Industries	Australia	1	25	25.00
Total = 46				

Table 11.9 ICARDA
 Local papers: 6 papers, 130 citations, 21.67 cites per paper
 Collaborative papers: 36 papers, 292 citations, 8.1 cites per paper

Collaborating institutions	Country	No. of papers	Sum of citations	Cites per paper
International Centre for Agricultural Research in the Dry Areas	Syria	36	292	8.11
Dryland Agricultural Research Institute	Iran	4	14	3.50
French National Institute for Agricultural Research - INRA	France	4	93	23.25
University of Western Australia	Australia	4	64	16.00
Department of Primary Industries	Australia	3	61	20.33
General Commission for Scientific Agricultural Research	Syria	3	3	1.00
Istituto Agronomico Mediterraneo	Italy	3	49	16.33
Plant Pests and Diseases Research Institute	Iran	3	17	5.67
Wageningen University	Netherlands	3	49	16.33
Ethiopian Institute of Agricultural Research	Ethiopia	2	2	1.00
International Crops Research Institute for the Semi-Arid Tropics, Hyderabad	India	2	86	43.00
National Research Council, Bari	Italy	2	12	6.00
Western Australian Department of Agriculture	Australia	2	1	0.50
Agricultural Institute of Slovenia	Slovenia	1	1	1.00
Agricultural Research Center, Aleppo	Syria	1	1	1.00
Agricultural Research Centre, Cairo	Egypt	1	4	4.00
Aleppo University	Syria	1	3	3.00
Bangladesh Agricultural Research Institute	Bangladesh	1	3	3.00
Central Research Institute for Field Crops	Turkey	1	1	1.00
Department of Employment, Economic Development and Innovation	Australia	1	7	7.00
Exporter Union Seed & Res Co, Turkey	Turkey	1	1	1.00
Genxpro GMBH	Germany	1	44	44.00
Hudeiba Research Station	Sudan	1	2	2.00
Industry & Investment NSW	Australia	1	7	7.00
Institut National Agronomique De Tunisie	Tunisia	1	1	1.00
Institute for Epidemiology and Pathogen Diagnostics	Germany	1	0	0.00
Institute for Plant Virology, Microbiology and Biosafety	Germany	1	6	6.00
IPA Agricultural Research Center	Iraq	1	2	2.00
Islamic Azad University	Iran	1	3	3.00
Iwate Biotechnology Research Centre	Japan	1	44	44.00
Mosul University	Iraq	1	21	21.00
National Agricultural Research Centre, Islamabad	Pakistan	1	11	11.00
National Institute of Agricultural Research	Tunisia	1	0	0.00
Primary Industries Research Victoria	Australia	1	7	7.00
Pulses Research Centre	Bangladesh	1	3	3.00
Royal Veterinary and Agricultural University, Copenhagen	Denmark	1	3	3.00

Table 11.9 ICARDA
 Local papers: 6 papers, 130 citations, 21.67 cites per paper
 Collaborative papers: 36 papers, 292 citations, 8.1 cites per paper

Collaborating institutions	Country	No. of papers	Sum of citations	Cites per paper
Seed and Plant Improvement Institute	Iran	1	0	0.00
Shambat Research Station	Sudan	1	2	2.00
Universidade Federal De Pernambuco	Brazil	1	44	44.00
University of Aleppo	Syria	1	1	1.00
University of Frankfurt	Germany	1	44	44.00
University of Saskatchewan	Canada	1	2	2.00
Virus Research Department, Cairo	Egypt	1	3	3.00
Washington State University	USA	1	1	1.00
Total = 44				

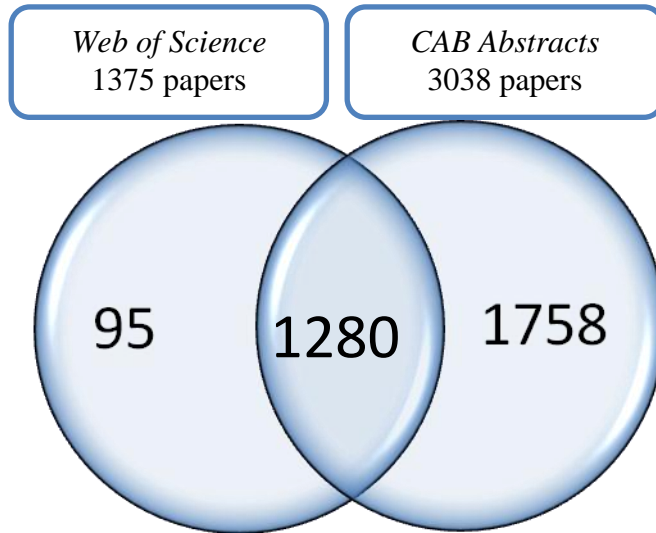
Table 11.10 Instituto De Agricultura Sostenible, Cordoba
 Local papers: 8 papers 50 citations 6.25 cites per paper
 Collaborative papers: 33 papers, 549 citations, 16.64 cites per paper

Collaborating institutions	Country	No. of papers	Sum of citations	Cites per paper
Instituto De Agricultura Sostenible, Cordoba	Spain	33	549	16.64
Universidad De Cordoba	Spain	20	289	14.45
University of Salamanca	Spain	4	111	27.75
Centro De Investigation Y Formation Agraria	Spain	3	89	29.67
Instituto De Investigación Y Formación Agraria Y Pesquera	Spain	3	39	13.00
National Research Council, Bari	Italy	3	22	7.33
Universidad De Granada	Spain	3	75	25.00
Agricultural Research Organization	Israel	2	55	27.50
Escuela Tecn Super Ingn Agron and Montes	Spain	2	13	6.50
Pennsylvania State University	USA	2	33	16.50
CTR Madrid Cadiz, Cordoba	Spain	1	5	5.00
French National Institute for Agricultural Research - INRA	France	1	3	3.00
Hebrew University of Jerusalem	Israel	1	6	6.00
Polish Academy of Sciences	Poland	1	4	4.00
Public University of Navarre	Spain	1	3	3.00
Universidad Complutense	Spain	1	3	3.00
Universidad Politécnica De Valencia	Spain	1	3	3.00
University Mohammed V	Morocco	1	9	9.00
University of Catania	Italy	1	19	19.00
Université Mohammed V	Morocco	1	35	35.00
Total = 20				

Table 12. Authors of chickpea research papers published during 2001-2010 and that has got at least 25 citations
 – Data as seen from *WoS-SCIE*

Authors	Institute	No. of journals	No. of papers	Sum of Citations
Siddique, KHM	University of Western Australia, Crawley	6	11	409
Kahl, G	University of Frankfurt, Frankfurt	4	9	319
Muehlbauer, FJ	Washington State University, Pullman	3	9	353
Berger, JD	University of Western Australia, Crawley	8	8	304
Winter, P	University of Frankfurt, Frankfurt	3	7	261
Abbo, S	Hebrew University of Jerusalem, Jerusalem	5	6	306
Kumar, J	Indian Agricultural Research Institute, New Delhi	4	6	268
Turner, NC	University of Western Australia, Crawley	6	6	212
Clarke, HJ	The University of Western Australia, Crawley	4	5	200
Gil, J	ETSIAM, Cordoba	3	5	216
Millan, T	Universidad de Córdoba, Córdoba	3	5	216
Baum, M	ICARDA, Syria	4	4	193
Crouch, JH	International Crops Research Institute for the Semi-Arid Tropics, Patancheru	3	4	148
Gaur, PM	International Crops Research Institute for the Semi-Arid Tropics, Patancheru	4	4	172
Kashiwagi, J	International Crops Research Institute for the Semi-Arid Tropics, Patancheru	3	4	154
Pang, ECK	RMIT University, Melbourne	2	4	177
Rubio, J	Instituto de Investigacion y Formacion Agraria y Pesquera, Córdoba	2	4	162
Udupa, SM	International Center for Agricultural Research in the Dry Areas, Aleppo	4	4	193
Upadhyaya, HD	International Crops Research Institute for the Semi-Arid Tropics, Hyderabad	4	4	189
Bhatia, S	National Institute for Plant Genome Research, New Delhi	2	3	114
Chandra, S	International Crops Research Institute for the Semi-Arid Tropics, Patancheru	3	3	116
Chen, W	Washington State University, Pullman	3	3	166
Cubero, JI	ETSIAM, Cordoba	2	3	133
Ford, R	University of Melbourne, Victoria	2	3	128
Hoisington, DA	International Crops Research Institute for the Semi-Arid Tropics, Patancheru	3	3	105
Iruela, M	IFAPA, Córdoba	2	3	133
Kaur, M	Guru Nanak Dev University, Amritsar	2	3	104
Khan, MS	Aligarh Muslim University, Aligarh	3	3	133
Khan, TN	University of Western Australia, Crawley	3	3	91
Krishnamurthy, L	International Crops Research Institute for the Semi-Arid Tropics, Patancheru	2	3	118
Martinez-Molina, E	Universidad de Salamanca, Salamanca	3	3	117
Mateos, PF	Universidad de Salamanca, Salamanca	3	3	117
Serraj, R	International Crops Research Institute for the Semi-Arid Tropics, Hyderabad	2	3	118
Sethy, NK	Defence Research and Development Organization, New delhi	2	3	114
Shokeen, B	Jawaharlal Nehru University, New Delhi	2	3	114

Authors	Institute	No. of journals	No. of papers	Sum of Citations
Singh, N	Guru Nanak Dev University, Amritsar	2	3	104
Soltani, A	Gorgan University of Agricultural Sciences, Gorgan	3	3	85
Taylor, PWJ	University of Melbourne, Melbourne	1	3	138
Varshney, RK	International Crops Research Institute for the Semi-Arid Tropics, Hyderabad	3	3	105
Velazquez, E	Universidad de Salamanca, Salamanca	3	3	117
Zaidi, A	Aligarh Muslim University, Aligarh	3	3	133
75 authors with two papers each 315 authors with one paper each Total 432 authors				



Analysis of 1758 journal papers gathered from CAB Abstracts

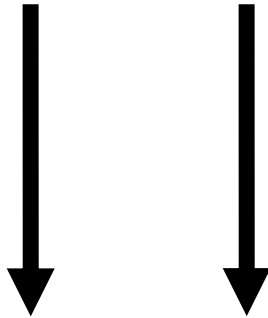


Table 13. Journals used to publish the 1758 papers indexed in *CAB Abstracts* during 2001-2010

Journal	Publishing country	IF	No. of papers
International Chickpea and Pigeonpea Newsletter	India	0	86
Legume Research	India	0.130	72
Annals of Plant Protection Sciences	India	0	60
Indian Journal of Pulses Research	India	0	56
Journal of Food Legumes	India	0	55
Journal of Maharashtra Agricultural Universities	India	0	43
Karnataka Journal of Agricultural Sciences	India	0	43
Annals of Agricultural Research	India	0	39
Environment and Ecology	India	0	39
Indian Journal of Plant Physiology	India	0	35
Crop Research (Hisar)	India	0	30
Indian Journal of Genetics and Plant Breeding	India	0.141	28
Journal of SAT Agricultural Research	India	0	27
Indian Journal of Entomology	India	0	26
Advances in Plant Sciences	India	0	25
Agricultural Science Digest	India	0	24
Indian Phytopathology	India	0	20
National Journal of Plant Improvement	India	0	20
Indian Journal of Weed Science	India	0	18
International Journal of Agriculture and Biology	Pakistan	0	18
International Journal of Agricultural Sciences	India	0	17
Journal of Soils and Crops	India	0	17
Research on Crops	India	0.036	17
Indian Journal of Dryland Agricultural Research and Development	India	0	16
Indian Journal of Nematology	India	0	16
Sarhad Journal of Agriculture	Pakistan	0	16
Farm Science Journal	India	0	15
Haryana Journal of Agronomy	India	0	15
JNKVV Research Journal	India	0	15
Pakistan Journal of Weed Science Research	Pakistan	0	15
13 journals with 10-14 papers			150
41 journals with 5-9 papers			269
52 journals with 3-4 papers			174
66 journals with 2 papers each			132
110 journals with 1 paper each			110
312 journals			1758

Table 14. Publishing country of the Journals used to publish the 1758 papers indexed in CAB Abstracts during 2001-2010

Country	No. of journals	No. of papers
India	138	1328
Pakistan	47	202
UK	13	26
Bangladesh	11	24
USA	10	18
Egypt	7	15
Turkey	7	15
Italy	5	14
Romania	6	11
Poland	5	9
Hungary	3	8
Iran	4	7
Japan	3	6
Australia	3	5
Belgium	2	5
Brazil	2	5
Bulgaria	3	5
Czech Republic	2	4
Jordan	3	4
Kenya	4	4
Germany	2	3
Korea Republic	2	3
New Zealand	2	3
Spain	2	3
Sri Lanka	2	3
Thailand	2	3
Bosnia-Herzegovina	1	2
Canada	1	2
China	2	2
Croatia	2	2
Lebanon	1	2
Lithuania	2	2
United Arab Emirates	2	2
Austria	1	1
Ethiopia	1	1
Finland	1	1
France	1	1
Mexico	1	1
Nepal	1	1
Netherlands	1	1
Syria	1	1
Taiwan	1	1
Uganda	1	1
Venezuela	1	1
	312	1758

Table 15. 1758 chickpea research papers classified by institutions in the byline

Institution	Country	No. of journals	No. of papers
Indian Agricultural Research Institute, New Delhi	India	37	98
Mahatma Phule Krishi Vidyapeeth, Rahuri	India	26	86
Chaudhary Charan Singh Haryana Agricultural University, Hisar	India	37	85
Punjab Agricultural University, Ludhiana	India	29	76
Jawaharlal Nehru Krishi Vishwavidyalaya, Jabalpur	India	24	68
Chandra Shekhar Azad University of Agriculture & Technology, Kanpur	India	25	59
University of Agricultural Sciences, Dharwad	India	19	57
Indian Institute of Pulses Research, Kanpur	India	18	56
Govind Ballabh Pant University of Agriculture and Technology, Pantnagar	India	21	54
International Crops Research Institute for the Semi-Arid Tropics, Patancheru	India	13	48
University of Agriculture, Pakistan	Pakistan	19	47
Indira Gandhi Agricultural University, Raipur	India	15	41
Dr.Panjabrao Deshmukh Krishi Vidyapeeth, Akola	India	20	38
Acharya N. G. Ranga Agricultural University, Hyderabad	India	19	32
Aligarh Muslim University, Aligarh	India	23	30
Rajendra Agricultural University, Pusa	India	14	30
Anand Agricultural University, Anand	India	18	29
Indian Council of Agricultural Research, New Delhi	India	17	29
Rajasthan Agricultural University, Bikaner	India	16	27
Bangladesh Agricultural Research Institute, Bangladesh	Bangladesh	12	21
National Agricultural Research Centre, Pakistan	Pakistan	9	21
Banaras Hindu University, Varanasi	India	17	20
Chaudhary Sarwan Kumar Himachal Pradesh Krishi Vishwavidyalaya, Palampur	India	13	19
Narendra Deva University of Agriculture & Technology, Faizabad	India	12	18
Junagadh Agricultural University, Junagadh	India	11	17
University of Agricultural Sciences, Raichur	India	7	17
Marathwada Agricultural University, Parbhani	India	12	16
Sher-e-Kashmir University of Agricultural Sciences & Technology of Kashmir, Pulwama	India	9	15
Panjab University, Chandigarh	India	12	14
Maharana Pratap University of Agriculture and Technology, Udaipur	India	10	13
Bidhan Chandra Krishi Viswavidyalaya, Mohanpur	India	7	12
Birsa Agricultural University, Ranchi	India	6	12
Chaudhary Charan Singh University, Meerut	India	7	11
Orissa University of Agriculture and Technology, Bhubaneswar	India	5	11
Chhatrapati Shivaji Maharaj University, Kanpur	India	8	10
Tamil Nadu Agricultural University, Coimbatore	India	7	10
19 institutions with 5-9 papers			127
37 institutions with 3-4 papers			130
49 institutions with 2 papers each			98
156 institutions with one paper each			156
297 institutions			1758

Table 16. 1758 chickpea research papers classified by countries in the byline

Country	No. of journals	No. of papers
India	183	1342
Pakistan	42	148
Iran	27	50
Bangladesh	24	41
Turkey	21	35
Egypt	15	24
USA	8	16
Poland	4	7
Australia	4	6
Ethiopia	5	6
Jordan	6	6
Sudan	5	6
Syria	4	6
Iraq	3	5
Tunisia	5	5
Bulgaria	3	4
Italy	4	4
Nepal	4	4
Romania	2	4
Algeria	3	3
Canada	2	3
New Zealand	2	3
Spain	3	3
Brazil	2	2
Greece	2	2
Kenya	2	2
Mexico	2	2
Oman	2	2
Philippines	1	2
Saudi Arabia	2	2
UK	2	2
Austria	1	1
China	1	1
Israel	1	1
Japan	1	1
Moldova	1	1
Morocco	1	1
Myanmar	1	1
Nigeria	1	1
Romania	1	1
Russia	1	1
USA	1	1
Total=42		

Table 17. 1758 chickpea research papers classified by subfields (Broad)

CABI code	Subfield (Broad)	No. of journals	No. of papers
FF000	Plant Science	293	1715
HH000	Pathogen, Pest, Parasite and Weed Management	156	555
JJ000	Soil Science	142	427
SS000	Non-food/Non-feed Agricultural Products	87	165
ZZ000	Other Sciences	90	159
EE000	Economics	68	146
QQ000	Food Science and Food Products	75	109
YY000	Zoology and Wild Animals	45	98
PP000	Natural Resources	66	89
KK000	Forestry, Forest Products and Agroforestry	47	85
XX000	Wastes	45	67
WW000	Biotechnology	10	13
NN000	Engineering and Equipment	10	12
LL000	Animal Science	11	11
CC000	Education, Extension, Information and Training	9	11
UU000	Social Sciences	8	10
VV000	Human Health and Hygiene	7	8
RR000	Forage and Feed Products	6	6
AA000	Agriculture	3	4
MM000	Aquatic Sciences	2	2

Table 18. 1758 chickpea research papers classified by subfields

CABI code	Subfield	No. of journals	No. of papers
FF005	Field Crops (NEW March 2000)	289	1670
FF100	Plant Production	208	795
FF020	Plant Breeding and Genetics	179	731
FF610	Viral, Bacterial and Fungal Diseases of Plants (NEW March 2000)	114	335
FF620	Plant Pests (NEW March 2000)	83	307
FF060	Plant Physiology and Biochemistry	113	295
JJ700	Fertilizers and other Amendments	94	247
HH405	Pesticides and Drugs: Control (NEW March 2000)	89	220
HH600	Host Resistance and Immunity	80	197
HH100	Biological Control	72	171
JJ100	Soil Biology	84	171
SS200	Non-food/Non-feed Plant Products	72	131
EE110	Agricultural Economics	58	122
FF061	Plant Nutrition	55	107
FF150	Plant Cropping Systems	62	105
FF900	Environmental Tolerance of Plants	48	101
QQ050	Crop Produce	68	97
FF040	Plant Composition	59	91
JJ800	Soil Water Management	49	81
FF062	Plant-Water Relations	44	71
KK540	Non-wood Forest Products	39	71
HH200	Environmental Pest Management	36	70
QQ500	Food Composition and Quality	47	70
FF030	Plant Morphology and Structure	45	61
FF500	Weeds and Noxious Plants	24	61
YY700	Pathogens, Parasites and Infectious Diseases (Wild Animals) (NEW March 2000)	34	59
HH300	Integrated Pest Management	31	57
SS230	Composition and Quality of Non-food/Non-feed Plant Products	39	47
PP500	Meteorology and Climate	35	42
XX100	Animal Wastes	26	42
EE145	Input Utilization (Microeconomics)	31	38
FF003	Horticultural Crops (NEW March 2000)	28	35
FF170	in vitro Culture of Plant Material	23	35
YY200	Reproduction, Development and Life Cycle (Wild Animals) (NEW March 2000)	20	31
JJ200	Soil Chemistry and Mineralogy	21	29
ZZ360	General Molecular Biology (Discontinued March 2000)	21	29
FF800	Plant Toxicology	24	28
QQ111	Storage Problems and Pests of Food	18	25
In 104 more subfields chickpea research papers have been classified in <i>CAB Abstracts</i>			