

RP 02745

J. C. Davies

**LIST OF RESEARCH PROJECTS**

**1980/81**



**INTERNATIONAL CROPS RESEARCH INSTITUTE FOR THE SEMI-ARID TROPICS  
ICRISAT EXTENSION P.O. 502 324, AHMEDABAD, INDIA**

\*Reviewed in Inhouse  
Reviews 1980/81

Sl. No.	Project number	Title of the project	Project scientist	Year of revision	Year of completion
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SORGHUM BREEDING

1	S-brd-1(80)	International Testing of Breeding material	B.N. Verma D.S. Murthy B.L. Agrawal B.V.S.Reddy M.J.V.Rao	1982	Contg.
2	*S-brd-2 (77)	Breeding for sorghum types suitable for rabl conditions	B.V.S.S.Reddy	1982	Contg.
3	S-brd-3(80)	Improvement of Sorghum by population breeding	B.N. Verma	1982	Contg.
4	*S-brd-4(77)	Sorghum Improvement : Dev. of hybrids	B.N. Verma D.S. Murthy B.L. Agrawal B.V.S.Reddy M.J.V. Rao	Terminated	
5	S-brd-5(74)	Grain-grass sorghums	K.V. Ramaiah	Terminated	
6	*S-brd-9(75)	Striga resistance breedg.	M.J.V.Rao	1982	Contg.
7	*S-brd-10(81)	New cytoplasms	M.J.V. Rao	1984	contg.
8.	S-brd-Path-1(80)	Dev. of sorghum with quality grains resistant to moulds	D.S.Murthy	1982	Contg.
9	*S-brd-Path-2(77)	Breeding for charcoal rot resistance	B.V.S.Reddy	To be merged with S-Path-4(76)	
10	*S-brd-Path-3(78)	Downy mildew resistance	M.J.V.Rao	1982	Contg.
11	S-brd-Ent-1(80)	Breeding for pest resistance	B.L.Agrawal	1982	Contg.
12	S-brd-Q&N-1(80)	Breeding and evaluation of sorghums with good food quality and nutritious grains	D.S.Murthy	1982	Contg.
13	*S-brd-Phy-1(77)	Breeding for drought	B.V.S.Reddy	1982	Contg.
14	<del>S-brd-Phy-1</del> (79)	Breeding for grains free from grain weathering, coloured spotting and germination/loss of viability	D.S. Murthy	Terminated	

Sl. No.	Project number	Title of the project	Project scientist	Year of revision	Year of completion
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SORGHUM PHYSIOLOGY

15	S-Phy-1(74)	Growth and yield Physiology	N.Seetharama	Terminated	
16	*S-Phy-2(75)	Efficiency of uptake and utilization of nutrients	N. Seetharama	1982	Contg.
17	*S-Phy-3(75)	Drought resistance	F.R.Bidinger	1982	Contg.
18	*S-Phy-4(75)	Plant anatomy,morphology and development	R.K. Maiti	Terminated	
19	*S-Phy-5(81)	Factors affecting crop establishment	R.K. Maiti	1983	Contg.
20	*S-Phy-6(81)	Response and adaptation to moisture, heat and nutrient stress	N.Seetharama	1983	Contg.
21	*S-Phy-7(81)	Response and adaptation to leaf growth to temperature, water and nutrient stress	N. Seetharama R.K. Maiti	1983	1983

SORGHUM PATHOLOGY

22	S-Path-1(80)	Identification and utilization of sources of resistance to sorghum grain moulds	L.K. Mughogho	Annual	Contg.
23	S-Path-2(80)	Identification and utilization of sources of stable resistance to sorghum downy mildew	R.Bandyopadhyay	Annual	Contg.
24	*S-Path-3(75)	Identification of sources of stable resistance to sorghum leaf disease	R.Bandyopadhyay	1982	Contg.
25	*S-Path-4(76)	Charcoal resistance studies	Suresh Pande	1983	contg.
26	S-Path-5(77)	Identification of sources of resistance to sorghum ergot	K.N. Rao	Terminated	

SORGHUM ENTOMOLOGY

27	S-Ent-1(74)	Pest incidence on hybrid and cultivars of sorghum	K.V.Seshu Raddy	Terminated	
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Sl. No.	Project number	Title of the project	Project scientist	Year of revision	Year of completion
28	S-Ent-2(74)	Pest carryover studies	K.V.Seshu Reddy	Terminated	
29	*S-Ent-3(74)	Screening of sorghum varieties for pest resistance	H.C. Sharma	1982	Contg.
30	*S-Ent-4(75)	Testing of granular insecticides for shootfly and stem borer control	K.V.Seshu Reddy	Terminated	
31	S-Ent-5(77)	Stem borer <i>Chilo partellus</i> Zell. Pheromone evaluation	K.V.Seshu Reddy	Terminated	
32	S-Ent-6(80)	Biology and ecology of the pest of sorghum	K.V.Seshu Reddy	1982	Contg.
33	S-Ent-7(80)	Integrated pest management on sorghum	K.V.Seshu Reddy	1982	Contg.
34	S-Ent-8(80)	Bionomics and ecological relationships of armyworm complex, <i>Mythimna</i> spp.	H.C. Sharma	1982	Contg.
35	S-Ent-9(80)	Bionomics and ecology of sorghum midge <i>contarinia sorghicola</i> coq. and identification of source and mechanism of resistance in sorghum	H.C. Sharma	1982	Contg.

#### SORGHUM GRAIN QUALITY & BIOCHEMISTRY

36	S-B&N-1(74)	Improvement of protein quality of sorghum	V.Subramanian	Terminated	
37	S-B&N-2(76)	To study the factors affecting the nutritional quality of sorghum including cooking quality	V.Subramanian	Terminated	
38	S-Q&B-3(80)	Evaluation of nutritional qualities of sorghum	V.Subramanian	1982	Contg.

Sl. No.	Project number	Title of the project	Project scientist	Year of revision	Year of completion
<b>MILLET BREEDING</b>					
39	*M-brd-1(73)	Advanced composites - I - Intrapopulation improvement.	Pheru Singh	1982	Contg.
40.	*M-brd-2(74)	Advanced composites - II - Interpopulation improvement	K.N.Raj	1982	Contg.
41	*M-brd-3(73)	Source material	K.Anand Kumar	1982	Contg.
42	*M-brd-4(73)	Variety crosses and synthetics	S.B.Chavan	1982	Contg.
43	*M-brd-5(73)	Hybrids	B.S.Talukdar	1982	Contg.
44	*M-brd-7(74)	Yield tests	K. Anand Kumar	Terminated and merged with M-brd-8(74/80)	
45	*M-brd-8(74)	International Cooperation	K. Anand Kumar	1982	Contg.
46	*M-brd-9(76)	Comparison of population breeding methods	K. N.Raj	1982	1983
47	M-brd-10(80)	Development and improvement of seed parents	K.Anand Kumar	1982	Contg.
48	*M-brd-Agron-1 (75)	Optimum cultivation practices and intercropping behaviour of new genotypes	D.J.Andrews	1982	Contg.

Sl No.	Project number	Title of the project	Project scientist	Year of revision	Year of completion
49	*M-brd-Phy-1(75)	Screening for drought resistance and maintenance of a nursery of contrasting morphological variability	B.S.Talukdar K.N. Rai	1982	Contg.
50	M-brd-Q&N-1(74)	Selection for improved nutritional quality and acceptance	K.Anand Kumar	Terminated	
51	M-brd-Q&N-2(79)	Grain quality	A.Patanthai K.Anand Kumar	Terminated	
52	*M-brd-Path-1(75)	Breeding for disease resistance	K.Anand Kumar B.S.Talukdar K.N. Rai S.B.Chavan Pheru Singh	1982	Contg.

#### MILLET PHYSIOLOGY

53	*M-Phy-1(78)	Crop growth and yield under optimum management conditions.	G.Alagarswamy	1982	Contg.
54	*M-Phy-2(78)	Crop growth and yield under low intensity management conditions	G.Alagarswamy	1982	Contg.
55	*M-Phy-3(75)	Improvement in drought resistance	V.Mahalakshmi	1982	Contg.
56	*M-Phy-5(78)	Improvement in crop establishment	F.R.Bidinger	1982	Contg.

#### MILLET PATHOLOGY

57	*M-Path-NI.1(78)	Studies on the biology and epidemiology of pearl millet downy mildew	S.D. Singh	1982	Contg.
58	*M-Path.NI.2(78)	Identification and utilization of stable resistance to pearl millet downy mildew	S.D. Singh	1982	Contg.
59	*M-Path.NI.3(78)	Evaluation of alternative control measures for pearl millet downy mildew	S.D. Singh	Terminated	

Sl. No.	Project number	Title of the project	Project scientist	Year of revision	Year of completion
60	*M-Path-N2.1(76)	Studies on the biology and epidemiology of ergot	R.P.Thakur	1982	Contg.
61	*M-Path-N2.2(78)	Identification and utilization of stable resistance to ergot	R.P. Thakur	1982	Contg.
62	*M-PathN.2.3(78)	Evaluation of alternative ergot control measures	R.P. Thakur	1982	Contg.
63	*M-Path-N3.1(81)	Studies on the biology and epidemiology of smut	R.P. Thakur	1983	Contg.
64	*M-Path-N3.2(78)	Identification and utilization of stable smut resistance	R.P. Thakur	1982	Contg.
65	*M-Path-N4.1(78)	Studies on the biology and epidemiology of rust	S.D. Singh	1982	Contg.
66	*M-PathN4.2(78)	Identification and utilization of stable rust resistance	S.D. Singh	1982	Contg.
67	M-Path-N5.1(79)	Study on the biology and epidemiology of blast	Not initiated		
68	M-Path.N5.2(80)	Evaluation of millet hybrids and cultivars for resistance to blast	Not initiated		

#### MILLET ENTOMOLOGY

69	M-B&N-1(74)	Past incidence on pearl millet	K.V.Seshu Raddy	Terminated	
70	M-Ent-2(80)	Studies on pearl millet insects of potential economic importance	H.C.Sharma	1982	Contg.

#### MILLET GRAIN QUALITY & BIOCHEMISTRY

71	M-B&N-1(74)	Improvement of nutritional quality of pearl millet	V.Subramanian	Terminated	
72	M-B&N-2(78)	Physico-chemical properties and cooking characteristics of pearl millet	V.Subramanian	Terminated	

Sl No	Project Number	Title of the project	Project scientist	Year of revision	Year of completion
73	M-GQSB-3(80)	Evaluation of protein and lysine contents in pearl millet	V.Subramanian	1982	
74	M-GQSB-4(80)	Physicochemical properties and cooking characteristics of pearl millet	V.Subramanian	1982	
<b><u>MILLET MICROBIOLOGY</u></b>					
75	*M-Micro-PM-1(81)	Host genetic differences in promoting N <sub>2</sub> fixation associated with millet		1984	Contg.
76	*M-Micr-2(81)	Measurement of N <sub>2</sub> fixation associated with millet, sorghum and related species and transferred to the crop		1984	Contg.
77	*M-Micr-3(81)	Bacteria associated with N <sub>2</sub> fixation in millet, sorghum and related species and the response to inoculation	D.B.Godse	1984	Contg.
78	*M-Micr-4(81)	Mycorrhiza	P.J.Dart	1984	Contg.
<b><u>PIGEONPEA BREEDING</u></b>					
79	*PP-brd-1(77)	Dev. of early duration cultivars and superior breeding lines for grain production	S.C.Gupte	1982	Contg.
80	*PP-brd-2(77)	Dev. of medium duration cultivars and superior breeding lines for grain production	L.J. Reddy	1982	Contg.
81	*PP-brd-3(77)	Dev. of late maturing cultivars and breeding population for grain production	S.C. Gupta K.B.Saxena	1982	Contg.



Sl. No	Project Number	Title of the project	Project scientist	Year of revision	Date of completion
82	PP-brd-4(75)	International cooperation	D.G.Faris	1982	Contg.
83	PP-brd-5(75)	Intergeneric hybridization	Terminated		
84	PP-brd-6(77)	Study of pollination in pigeonpea	J.M. Green	Terminated	
85	PP-brd-7(77)	Dev. of cultivars and breeding populations for non-traditional cropping systems	K.B. Saxena	1982	Contg.
86	PP-brd-8(77)	Breeding for new plant types	K.C. Jain	Terminated	
87	*PP-brd-9(77)	Population breeding and alternative breeding systems	G.K.Bhatia	1982	Contg.
88	*PP-brd-10(77)	Development of hybrids	L.J.Reddy	1982	Contg.
89	*PP-brd-11(77)	Breeding for high protein	K.C. Jain	1982	Contg.
90	PP-brd-12(77)	Comparison of breeding methods	Terminated		
91	*PP-brd-13(77)	Diallel selective mating scheme evaluation	Terminated		
92	*PP-brd-14(77)	Evaluation of diallel for genetic analysis	L.J. Reddy	Terminated	
93	PP-brd-15(77)	Generation tests	K.C. Jain	Terminated	
94	*PP-brd-16(81)	Dev. of new variability for the breeding program	L.J.Reddy K.B.Saxena	1983	Contg
95	*PP-brd-17(81)	Bulk seed production and rapid advancement of breeding lines	G.K. Bhatia	1983	Contg.
96	*PP-brd-18(81)	Breeding to overcome physiological constraints to yield	K.B. Saxena	1983	Contg.
97	*PP-brd-Path-19(81)	Breeding for disease resistance	L.J.Reddy K.C.Jain M.V.Reddy J.Kannalyan	1983	Contg.
98	*PP-brd-Ent-20(81)	Breeding for insect resistance	G.K.Bhatia S.S. ...	1983	Contg.

Sl No.	Project number	Title of the project	Project scientist	Year of revision	Year of completion
<u>PIGEONPEA PATHOLOGY</u>					
99	APP-Path-1(78)	Studies on pigeonpea wilt	Terminated		
100	APP-Path-2(78)	Studies on sterility mosaic of pigeonpea	M.V.Raddy	1982	Contg.
101	APP-Path-3(78)	Studies on phytophthora blight of pigeonpea	Terminated		
102	APP-Path-4(78)	International survey of pigeonpea diseases	Terminated		
103	APP-Path-5(81)	Dev. of techniques to screen for resistance to potentially serious diseases of pigeonpea	J.Kannaiyan M.V. Reddy	1983	Contg.
104	APP-Path-6( 1)	Identification of multiple disease resistance in pigeonpea	Y.L. Nene	1983	Contg.
105	APP-Path-7(81)	Study on the pigeonpea wilt and phytophthora blight	J. Kannaiyan	1983	Contg.
<u>PIGEONPEA PHYSIOLOGY</u>					
106	PP-Phy-1(80)	Comparison of pigeonpea genotypes	I.M. Rao	1982	Contg.
107	PP-Phy-2(80)	Response of pigeonpeas to environment and cultural practices	I.M. Rao	1982	Contg.
108	PP-Phy-3(80)	Source-sink relationship in pigeonpeas	I.M. Rao	1982	Contg.
<u>PIGEONPEA ENTOMOLOGY</u>					
109	APP-Ent-1(77)	Pest distribution and associated losses in pigeonpea	S.S.Lateef	Terminated	
110	APP-Ent-2(77)	Dev. of technique and study of host plant resistance to pests in pigeonpea and its relatives	S.S. Lateef	Terminated	

Sl No	Project number	Title of the project	Project scientist	Year of revision	
111	*PP-Ent-3(77)	Integrated pest management on pigeonpea	S.Sithanatham	1982	Contg
112	*PP-CP-Ent-4(77)	Biology and ecology of the pests of pigeonpea and chickpea	S.Sithanatham	1982	Contg
113	*PP-Ent-5(81)	Studies on the biology, ecology and control of pigeonpea pod-fly, <u>Meiagromyza obtusa</u> .	S.Sithanatham	1983	Contg
114	*PP-Ent-6(81)	Studies on the problems of insecticide use on pigeonpea	C.S. Pauer	1983	Contg.
115	*PP-CP-Ent-7(81)	Studies of <u>Heliothis</u> populations	C.S. Pauer V.S.Bhatnagar	1983	Contg.
116	*PP-CP-Ent-8(81)	Studies on the augmentation of the natural control elements of the pulse pests	S.Sithanatham	1983	Contg.

#### PIGEONPEA GRAIN QUALITY & BIOCHEMISTRY

117	PP-B&N-1(74)	Screening of germplasm and breeding material for protein content and limiting amino acids	Umaid Singh	Terminated	
118	PP-B&N-2(76)	Study some of the factors affecting the nutritional quality of pigeonpea including cooking quality	Umaid Singh	Terminated	
119	PP-GQ&B-3(80)	Evaluation of methods for the estimation of methionine, cystine and tryptophan	Umaid Singh	1982	Contg.
120	PP-GQ&B-4(80)	Study some of the factors affecting the grain quality of pigeonpea	Umaid Singh	1982	Contg.

#### PIGEONPEA MICROBIOLOGY

121	*PP-Micro-1(76)	Soil Rhizobium population nodulating pigeonpea	Terminated		
122	*PP-Micro-2(76)	Response of pigeonpea to infection with Rhizobium	Terminated		

Sl No.	Project number	Title of the project	Project scientist	Year of revision	Year of completion
123	*PP-Micr-3(76)	Nitrogen fixation by pigeonpea			Terminated
124	*PP-Micr-4(76)	Host plant rhizobium genetic interactions in nodulation of pigeonpea			Terminated
125	*PP-Micro-5(81)	Ecology of pigeonpea rhizobia and selection of inoculant strains	JVDK Kumar Rao	1984	Contg.
126	*PP-Micr-6(81)	Nitrogen fixation by pigeonpea	JVDK Kumar Rao	1984	Contg.
127	*PP-Micr-7(81)	Selection of pigeonpea germplasm for nitrogen fixation	JVDK Kumar	1984	Contg.

#### CHICKPEA BREEDING

128	*CP-brd-1(77)	Dev. of Desi cultivars and superior breeding lines	C.L.L.Gowda	1982	Contg.
129	*CP-brd-2(77)	Dev. of kabuli cultivars and superior breeding material	J.Kumar	1982	Contg.
130	CP-brd-3(77)	Dev. of superior cultivars and breeding lines for northern latitudes			Terminated
131	*CP-brd-5(78)	Breeding for adaptation to breeding inputs and sowing	S.C.Sethi	1982	Contg.
132	*CP-brd-6(77)	Dev. of high protein breeding lines	J.Kumar	1982	Contg.
133	*CP-brd-7(77)	Breeding for new plant types	C.L.L.Gowda	1982	Contg.
134	CP-brd-8(77)	Evaluation of recurrent selection as a breeding method	C.L.L.Gowda		Terminated
135	*CP-brd-9(77)	Comparison of breeding methods	S.C.Sethi	1982	Contg.
136	CP-brd-10(75)	Plot technique investigation	K.B.Singh		Terminated
137	*CP-brd-11(77)	International cooperation	J.B.Smithson	1982	Contg.
138	*CP-brd-12(77)	Genetic studies of qualitative and quantitative characters	S.C. Sethi	1982	Contg.

Sl. No.	Project number	Title of the project	Project scientist	Year of revision	Year of completion
139	*CP-brd-13(81)	Breeding for adaptation to early sowing in peninsular India	C.L.L.Gowda	1983	Contg.
140	*CP-brd-14(81)	Studies on desi-kabuli Introgression	C.L.L.Gowda	1983	Contg.
141	*CP-brd-15(81)	Breeding kabuli chickpeas at ICARDA	K.B.Singh G.C.Mawtin	1983	Contg.
142	*CP-brd-Path-16(81)	Breeding for disease resistance	J.Kumar	1983	Contg.
143	*CP-brd-Ent-17(81)	Breeding for insect resistance	C.L.L.Gowda	1983	Contg.
144	*ICRISAT-ICARDA-CP-brd-1(78)	Dev. of kabuli cultivars and superior breeding material	Terminated		
145	*ICRISAT-ICARDA-CP-brd-2(78)	International cooperation	Terminated		
<u>CHICKPEA PATHOLOGY</u>					
146	*CP-Path-1(78)	Studies on fusarium wilt of chickpea	M.P.Haware	Terminated	
147	*CP-Path-2(78)	Studies on stem and root rots of chickpea	M.P. Haware	Terminated	
148	*CP-Path-3(78)	Studies on the virus complex in chickpea	M.V. Reddy	1982	Contg.
149	*CP-Path-4(78)	Studies on Ascochyta blight	M.V.Reddy	Terminated	
150	*CP-Path-5(78)	International chickpea nurseries	Y.L. Nene	Terminated	
151	*CP-Path-6(81)	Studies on the wilt and root rot of chickpea	M.P.Haware	1983	Contg.
152	*CP-Path-7(81)	Studies on potentially serious diseases of chickpea	M.P.Haware	1983	Contg.
153	*CP-Path-8(81)	Identification of multiple disease resistance in chickpea	M.P.Haware M.V.Reddy	1983	Contg.

Sl No	Project number	Title of the project	Project scientist	Year of revision	Year of completion
<b><u>CHICKPEA PHYSIOLOGY</u></b>					
154	CP-Phy-1(80)	Comparison of chickpea genotypes	N.P.Saxena	1982	Contg
155	CP-Phy-2(80)	Response of chickpea to environment and cultural practices	N.P. Saxena	1982	Contg
156	CP-Phy-3(80)	Source-link relationships in chickpeas	N.P. Saxena	1982	Contg
157	*CP-Phy-4(80)	Water relations of chickpea and growth of chickpea under adverse conditions	N.P. Saxena	1982	Contg
<b><u>CHICKPEA ENTOMOLOGY</u></b>					
158	*CP-Ent-1(77)	Pest distribution and associated crop losses on chickpea in the major producing countries	S.Sithanantham	1982	Contg.
159	*CP-Ent-2(77)	Host plant resistance to pests in chickpea	S.S.Lateef	1982	contg.
160	*CP-Ent-3(77)	Integrated pest management of chickpea	S.Sithanantham	1982	Contg.
<b><u>CHICKPEA GRAIN QUALITY &amp; BIOCHEMISTRY</u></b>					
161	CP-B&N-1(77)	Evaluation of germplasm and breeding material for protein content and limiting amino acids	Umaid Singh	Terminated	
162	CP-B&N-2(75)	Study some of the factors affecting nutritional quality of chickpea including cooking quality	Umaid Singh	Terminated	
163	CP-GQSB-3(80)	Identification of suitable methods for the estimation of methionine, cystine and tryptophan for screening purpose	Umaid Singh	1982	Contg.
164	CP-GQSB-4(80)	Study some of the factors affecting nutritional quality of chick-	U. Singh	1982	Contg.

Sl No.	Project number	Title of the project	Project scientist	Year of revision	Year of completion
<b><u>CHICKPEA MICROBIOLOGY</u></b>					
165	*CP-Micr-1(76)	Cicer Rhizobium populations in soil	O.P. Rupela		Terminated
166	*CP-Micr-2(76)	Response of chickpea to inoculation with Rhizobium	O.P. Rupela		Terminated
167	*CP-Micr-3(76)	Nitrogen fixation by chickpea	O.P. Rupela		Terminated
168	*CP-Micr-4(76)	Host Rhizobium genetic interactions in nodulation of chickpea	O.P. Rupela		Terminated
169	*CP-Micr-5(81)	Ecology of chickpea rhizobia and selection of inoculant strains	O.P. Rupela	1984	Contg.
170	*CP-Micr-6(81)	Nitrogen fixation by chickpea	O.P. Rupela	1984	Contg.
171	*CP-Micr-7(81)	Selection of chickpea germplasm for nitrogen fixation	O.P. Rupela	1984	Contg.

**MICROBIOLOGY JOINT PROJECTS**

172	*CP-PP-G-Micr-1(81)	Rhizobium culture collection and evaluation and inoculant preparation.	O.P. Rupela JVDK Kumar Rao P.T.C.Nambiar	1984	Contg.
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Sl. No.	Project Number	Title of the Project	Project Scientist	Year of revision	Year of completion
<b><u>GROUNDNUT BREEDING</u></b>					
173	G-brd-1(80)	Breeding for resistance to leafspots (Cercospora arachidicola and Cercosporidium personatum)	S.N. Nigam	1982	Contg.
174	G-brd-2(80)	Breeding for resistance to rust (Puccinia arachidis)	S.N. Nigam	1982	Contg.
175	G-brd-3(77)	Breeding for resistance to Aspergillus flavus	S.N. Nigam	1980	Contg.
176	G-brd-4(80)	Breeding for earliness	S.N. Nigam	1982	Contg.
177	G-brd-5(80)	Breeding for increased yield and quality.	S.N. Nigam	1982	Contg.
178	G-brd-6(80)	Breeding for pest resistance	S.L. Dwivedi	1982	Contg.
179	G-brd-7(80)	Development of groundnut cultivars for the Vertisols and other dark Alluvial soils.	S.L. Dwivedi	1982	Contg.
<b><u>GROUNDNUT PATHOLOGY</u></b>					
180	G-Path-1(76)	Investigations on bud necrosis or bud blight virus disease	A.M.Ghanekar		DROPPED
181	G-Path-2(76)	Survey for incidence and investigations on chlorotic leaf streakvirus, veinbanding disease, peanut mottle virus and other viruses or diseases associated with mycoplasma like agents and Rickettsiae.	A.M.Ghanekar		DROPPED
182	G-Path-3(76)	Investigations on the biology and epidemiology of groundnut rust and identification of sources of stable resistance.	P. Subrahmanyam		DROPPED
183	G-Path-4(76)	Investigations on leafspots of groundnut caused by Cercospora arachidicola and Cercosporidium personatum.	P. Subrahmanyam		DROPPED
184	G-Path-5(77)	Investigations on Aspergillus flavus and other fungal diseases of groundnut	P. Subrahmanyam		DROPPED



Sl. No.	Project Number	Title of the Project	Project Scientist	Year of revision	Year of completion
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GROUNDNUT PATHOLOGY (Cont'd..)

185	G-Path-6(80)	Investigations on Clump virus disease.	D.V.R. Reddy	1982	Contg.
186	G-Path-7(80)	Investigations on Peanut mottle virus disease.	D.V.R. Reddy	1982	Contg.
187	G-Path-8(80)	Investigation on seed and seedling diseases.	V.K. Mehan	1982	Contg.
188	G-Path-9(80)	Investigations on Pod Rots	V.K. Mehan	1982	Contg.
189	G-Path-10(80)	Investigations on Mycotoxin-producing Fungi in seeds	V.K. Mehan	1982	Contg.
190	G-Path-11(80)	Investigations on bud necrosis virus	A.M.Ghanekar	1982	Contg.
191	G-Path-12(80)	Investigations on diseases caused by viruses, mycoplasma-like agents, spiroplasma, rickettsiae and deficiency diseases.	A.M.Ghanekar	1982	Contg.
192	G-Path-13(80)	Investigations on rust disease	P.Subrahmanyam	1982	Contg.
193	G-Path-14(80)	Investigations on leaf-spot diseases caused by Cercospora arachidicola and Cercosporidium personatum.	P.Subrahmanyam	1982	Contg.
194	G-Path-15(80)	Investigations on diseases caused by fungi, bacteria and nematodes.	P.Subrahmanyam	1982	Contg.

GROUNDNUT ENTOMOLOGY

195	G-Ent-1(77)	Groundnut entomology	A.B. Mohammed	DROPPED	
196	G-Ent-2(80)	Host plant resistance to pests in groundnut and its relatives.	P.W. Amin	1982	Contg.
197	G-Ent-3(80)	Anthropod vectors of viral diseases of groundnut, their ecology and control.	P.M. Amin	1982	Contg.
198	G-Ent-4(80)	Survey of pests of groundnuts and associated crop loss assessment	A.B.Mohammed	1982	Contg.

Sl. No.	Project Number	Title of the Project	Project Scientist	Year of revision	Year of completion
<u>GROUNDNUT CYTOGENETICS</u>					
199	G-Cyt-1(80)	Utilization of wild arachis species.	A.K. Singh	1982	Contg.
200	G-Cyt-2(80)	Cytogenetic analysis of wild species of arachis.	A.K. Singh	1982	Contg.
201	G-Cyt-3(80)	Investigations of barriers to hybridization in arachis.	D.C. Sastri	1982	Contg.
<u>GROUNDNUT MICROBIOLOGY</u>					
202	*G-Micr-1(78)	Soil <u>rhizobium</u> populations nodulating groundnut	P.T.C. Nambiar	1984	Contg
203	*G-Micr-2(77)	Response of groundnut to inoculation with Rhizobium.	P.T.C. Nambiar	1984	Contg
204	*G-Micr-3(76)	Nitrogen fixation by groundnut	P.T.C. Nambiar T. Matsumoto	1984	Contg
205	*G-Micr-4(76)	Host plant - Rhizobium genetic interactions in nodulation of groundnut.	P.T.C. Nambiar	1984	Contg

Sl. No.	Project Number	Title of the Project	Project Scientist	Year of revision	Year of completion
<b>GENETIC RESOURCES UNIT</b>					
206	GRU-S-1(74)	Maintenance, evaluation and documentation of sorghum germplasm.	K.E.Prasada Rao	1982	Contg.
207	GRU-S-2(75)	Assembly of sorghum germplasm from other germplasm centers and collection within India.	K.E.Prasada Rao	1982	Contg.
208	GRU-S-3(74)	Introgression and conversion of sorghum germplasm.	K.E.Prasada Rao	1982	Contg.
209	GRU-MM-1(76)	Assembly, maintenance and evaluation of minor millets.	K.E.Prasada Rao	1982	Contg.
210	GRU-S/M-1(80)	International cereals germplasm exploration and collection	M.H. Mengesha K.E.Prasada Rao S. Appa Rao	Annual	Contg.
211	GRU-PH-1(73)	Pearl millet germplasm, evaluation and maintenance.	S. Appa Rao	1982	Contg.
212	GRU-PH-2(78)	Collection of pearl millet germplasm in India.	SS. Appa Rao	1982	Contg.
213	GRU-PH-3(80)	Evaluation of selected pearl millet germplasm under different environmental conditions in India, Upper Volta and Niger.	M.H. Mengesha S. Appa Rao	Annual	1982
214	GRU-PH-4(80)	Estimation of Pollen distribution in pearl millet	S. Appa Rao	NOT APPROVED	
215	GRU-PP-1(75)	Maintenance and evaluation of pigeonpea germplasm.	P. Ramchandam	1982	Contg.
216	GRU-PP-2(75)	Collection of <u>Cajanus</u> and <u>Atylosia</u> germplasm and preparation of taxonomical revision.	LJG van der Maesen	1982	Contg.
217	GRU-CP-1(75)	Maintenance and evaluation of chickpea germplasm.	R.P.S. Pundir	1982	Contg.
218	GRU-CP-2(74)	Collection of <u>Cicer</u> germplasm and updating <u>Cicer</u> taxonomy.	LJG van der Maesen	1982	Contg.
219	GRU-CP-3(77)	Interspecific hybridization in <u>Cicer</u> .	R.P.S. Pundir	1982	Contg.

Sl. No.	Project Number	Title of the Project	Project Scientist	Year of Revision	Year of completion
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GENETIC RESOURCE UNIT (Cont'd...)

220	GRU-GN-1(76)	Collection and assembly of Arachis germplasm classification and documentation.	V.Ramanatha Rao	1982	Contg.
221	GRU-GN-2(76)	Maintenance and evaluation of groundnut germplasm.	V.Ramanatha Rao	1982	Contg.
222	GRU-GN-3(80)	International groundnut germplasm collection & assembly.	V.Ramanatha Rao	1982	Contg.

ECONOMICS

223	EC-Prod-1A-E(74)	Studies of traditional farming practices and resource availabilities in SAT India.	DROPPED		
224	EC-Prod-2(80)	Implications of Human nutritional status on the SAT for research strategies and policies.	Mrs.P.Bidinger	-	1980
225	EC-Prod-3A-D(75)	Risk and uncertainty in semi-arid tropical agriculture	DROPPED		
226	EC-Prod-4(74)	Economic comparison of human, animal and mechanical power sources.	DROPPED		
227	EC-Prod-5A(80)	Watershed and Steps in improved technology analysis	J.G. Ryan	-	1981
228	EC-Prod-5B(80)	Water Harvesting simulation study	J.G. Ryan	-	1981
229	EC-Prod-6A&B(74)	History and economics of existing tank irrigation in India.	DROPPED		
230	EC-Prod-7(75)	Approaches to group action and organisation for improved land and water resource utilization in the SAT.	DROPPED		

Sl. No.	Project Number	Title of the Project	Project Scientist	Year of revision	Year of completion
<b>ECONOMICS (Cont'd...)</b>					
231	EC-Mark-1(74)	Evaluation of relevant economic characteristics of legumes and cereals in the SAT.	M. von Oppen		DROPPED
232	EC-Mark-2A(75)	All India Market channels			DROPPED
233	EC-Mark-2B(75)	Rural marketing system in Mahbubnagar district.			DROPPED
234	EC-Mark-3(75)	Estimates of supply and demand elasticities of ICRISAT crops in India.	M. von Oppen		Suspended. Will be terminated by 1980
235	EC-Mark-4(76)	Agricultural marketing, regional specialization and aggregate productivity.			DROPPED
236	EC-10(80)	Fertilizer use in semi-arid tropical India.	D. Jha	-	1980
237	EC-11A(80)	Credit markets, credit institutions and differential access to credit.	J.G. Ryan	-	1980
238	EC-11B(80)	Fluctuations and determinants of rural incomes and assets.	R.P. Singh	1981	Contg.
239	EC-11C(80)	Rural labor markets in SAT villages in India.	J.G. Ryan	-	1981
240	EC-11D(80)	Features of traditional farming systems.	R.P. Singh	-	1982
241	EC-11E(80)	Village documentation	R.P. Singh	-	1982
242	EC-12(80)	Assessment of technological options available to semi-arid tropical farmers with the help of activity analysis.	R.D. Ghodake	-	Contg.
243	EC-13(79)	Study of sorghum fodder market in Hyderabad.			NOT APPROVED
244	EC-14(80)	Equity effects of market access	M. von Oppen	-	1980
245	EC-15(80)	Study of Kinship and caste in Indian VLS villages.	Y.S. Doherty	1981	1982

Sl. No.	Project Number	Title of the Project	Project Scientist	Year of revision	Year of completion
<u>ECONOMICS (Cont'd...)</u>					
246	EC-16(80)	Analysis of Indigenous watershed development in central peninsular SAT India.	V.S. Doherty	1981	1982
247	EC-17(80)	Population growth and the development of SAT agriculture.	V.S. Doherty	-	1981
248	EC-18(80)	Determinants of kharif fallow and cropping intensities in deep Vertisols in SAT India.	G.H. Michaels	-	1982
249	EC-19(80)	Technical and administrative feasibility of tank irrigation authority (TIA).	M. von Oppen	-	1980
250	EC-20(80)	Impact of commercialization on small and large farmers in SAT India.	V.T. Raju	Annual	Contg.
251	EC-21(80)	Comparison of different methods of assessing consumer preferences for sorghum.	M. von Oppen	-	1981
252	EC-22(80)	Group action and watershed development analysis of On-farm experiments.	V.S. Doherty	1982	Contg.
<u>FARMING SYSTEMS - AGROCLIMATOLOGY</u>					
253	*FS-CL-1(77)	Collection and interpretation of climatic data of semi-arid tropics.	S.J. Reddy	1982	Contg.
254	FS-CL-2(80)	The Quantification of moisture environment for crop growth.	S.M. Virmani	1982	Contg.
255	FS-CL-3(80)	Microclimatological and crop phenological investigations in the crop canopies.	MVK Sivakumar	1982	Contg.
256	FS-CL-4(80)	Studies on crop-weather modeling : sorghum, pearl millet, chickpea, pigeonpea and groundnut.	AKS Huda	1982	1982

Sl. No.	Project Number	Title of the Project	Project Scientist	Year of revision	Year of completion
<b><u>ENVIRONMENTAL PHYSICS</u></b>					
257	FS-SP-1(80)	Physical characterization of Alfisols and Vertisols.	Sardar Singh	1982	1982
258	FS-SP-2(80)	Soil-plant-water relations and water balance studies.	Sardar Singh	1982	Contg.
<b><u>LAND &amp; WATER MANAGEMENT</u></b>					
259	FS-LW-1A(75)	Resource utilization under present management practices: Part-A : Effects of contour bunding.	F.P. Hulbers	DROPPED	
260	FS-LW-1B(80)	Resource utilization under present management practices: Part-B : Existing small reservoir(Tank) Irrigation systems.	P.N. Sharma	1982	Contg.
261	*FS-LW-2(75)	Effect of land treatments on crop yields and soil and water losses.	F.P. Hulbers	1982	Contg.
262	*FS-LW-3(74)	The collection and storage of runoff and the recharge and recovery of groundwater.	P. Pathak	1982	1980
263	*FS-LW-4(74)	Land management effects on runoff, drainage, profile storage and evapotranspiration.	P. Pathak	1982	
264	FS-LW-5(80)	Conveyance and optimum use of supplemental water.	R.C. Sachan	1982	Contg.
265	FS-LW-6(80)	Land and water management on an Alfisol-watershed.	F.P. Hulbers	1982	Contg.
266	*FS-LW-8(80)	Simulation of soil moisture profiles & groundwater recharge in cultivated fields	V.V.N. Murthy	1982	Contg.
<b><u>FARM POWER &amp; EQUIPMENT</u></b>					
267	FS-FPE-1(80)	Machinery management for improved farming systems	Harbans Lal	1982	Contg.
268	FS-FPE-2(80)	Development of improved tillage planting and inter-cultural practice.	M.C. Klaij		1980

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Sl. No.	Project Number	Title of the Project	Project Scientist	Year of revision	Year of completion
<b><u>FARM POWER &amp; EQUIPMENT</u></b> (Cont'd...)					
269	FS-FPE-3(78)	Harvest and post-harvest technology	O.P.Singhal		DROPPED
270	FS-FPE-4(80)	Design and development of farm machinery.	R.K.Bansal	1982	Contg.
271	FS-FPE-5(80)	Development of improved tillage planting, and interrow cultivation practices for crop production on Alfisols.	M.C. Klalj	1982	
<b><u>PRODUCTION AGRONOMY</u></b>					
272	FS-Prod.Agron. 1(80)	Investigations on the factors affecting crop-weed balance.	SVR Shetty	1982	Contg.
273	FS-Prod.Agron. 2(80)	Development of effective weed management systems for the SAT.	SVR Shetty	1982	Contg.
274	*FS-Prod.Agron-3(77)	Forage, Fodder and fuel crops investigations.	S.K.Sharma		TERMINATED
275	FS-Prod.Agron. 4(75)	Agronomy investigations on an operational scale.	S.K.Sharma		TERMINATED
<b><u>CROPPING SYSTEMS</u></b>					
276	FS-CS-1(80)	Crop physiology studies in intercropping	M.S.Reddy M.Natarajan	1982	Contg.
277	FS-CS-2(80)	Agronomic studies in intercropping.	M. R. Rao	1982	Contg.
278	FS-CS-3(80)	A study of double cropping by means of relay, sequential or ratoon systems.	M. S. Reddy	1982	Contg.
279	FS-CS-4(80) New	International coordinated research for intercropping studies.			Kept in abeyance
<b><u>SOIL FERTILITY &amp; CHEMISTRY</u></b>					
280	FS-SFC-1(78)	Nitrogen balance investigations in major soils of SAT.	T. J. Rego		DROPPED
281	*FS-SFC-2(75)	Soil fertility management and fertilization investigations in major soils of SAT.	T. J. Rego		Annual



S1. No.	Project number	Title of the project	Project scientist	Year of revision	Year of completion
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CROPPING ENTOMOLOGY

282	FS-Ent-9(80)	Entomological studies in sorghum/pigeonpea inter-cropping systems	V.S. Bhatnagar	1982	Contg.
283	*FS-Ent-12(74)	Pest monitoring by light traps	V.S. Bhatnagar	1982	contg.
284	FS-Ent-13(80)	Survey of biotic control agents of <u>Heliothis armigera</u> (Hubner)	V.S. Bhatnagar	1982	contg.

## SUMMARY

Program	Reviewed in 1980/81		To be re- vis- ed	Projects in opera- tion in 1980/81	Total projects
	Approved including (new) projects	Dropped/Not approved/ kept in abeyance			
<b><u>SORGHUM</u></b>					
- Breeding	6(1)	3	5	11	14
- Physiology	5(3)	2	-	5	7
- Pathology	2	1	2	4	5
- Entomology	1	4	4	5	9
- G.Q. & Biochem.	-	2	1	1	3
Microbiology	Sorghum & Millet microbiology projects were combined and are shown under millet program				
Sorghum total	14	12	12	26	38
<b><u>MILLETS</u></b>					
- Breeding	10	3	1	11	14
- Physiology	4	-	-	4	4
- Pathology	9	3	-	9	12
- Entomology	-	1	1	1	2
- G.Q. & Biochem.	-	2	2	2	4
- Microbiology	4	-	-	4	4
Millets total	27	9	4	31	40
<b><u>PIGEONPEA</u></b>					
- Breeding	11(5)	6	3	14	20
- Pathology	4(3)	3	-	4	7
- Physiology	-	-	3	3	3
- Entomology	6(4)	2	-	6	8
- G.Q. & Biochem.	-	2	2	2	4
- Microbiology	3(3)	4	-	3	7
Pigeonpea total	24	17	8	32	49

Program	Reviewed in 1980/81		To be reviewed	Projects in operation in 1980/81	Total projects
	Approved including (new) projects	Dropped/Not approved/kept in abeyance			
<u>CHICKPEA</u>					
- Breeding	13(4)	5	-	13	18
- Pathology	4(3)	4	-	4	8
- Physiology	1	-	3	4	4
- Entomology	3	-	-	3	3
- G.O. & Biochem.	-	2	2	2	4
- Microbiology	3(3)	4	-	3	7
<b>Total</b>	<b>24</b>	<b>15</b>	<b>5</b>	<b>29</b>	<b>44</b>
Joint Projects (Microbiology)	1	-	-	1	1
<u>GROUNDNUT</u>					
- Breeding	-	-	7	7	7
- Pathology	-	5	10	10	15
- Entomology	-	1	3	3	4
- Cytogenetics	-	-	3	3	3
- Microbiology	4	-	-	4	4
<b>Total</b>	<b>4</b>	<b>6</b>	<b>23</b>	<b>27</b>	<b>33</b>
<u>GENETIC RESOURCES</u>					
UNIT	-	1	16	16	17
ECONOMICS	-	10	20	20	30

Program	Reviewed in 1980/81		To be reviewed	Projects in operation in 1980/81	Total projects
	Approved including (New) projects	Dropped/Not approved/Kept in abeyance			

FARMING SYSTEMS

- Agroclimatology	1	-	3	4	4
- Environmental Physics	-	-	2	2	2
- Land & Water Management	4(1)	1	3	7	8
- Farm Power & Equipment	-	1	4	4	5
- Production Agronomy	-	2	2	2	4
- Cropping Systems	-	1	3	3	4
- Soil Fertility & Chemistry	1	1	-	1	2
- Cropping Entomology	1	-	2	3	3
PSEP total	7	6	19	26	32
Grand total	101	76	107	208	284