

### Dark Soil

Plot No.	146	145	144	143	142	141	140	139	138	137	136	135	134	15 m
Treatment Code	D <sub>1</sub> R <sub>1</sub> V <sub>1</sub>	D <sub>3</sub> R <sub>2</sub> V <sub>1</sub>	D <sub>1</sub> R <sub>2</sub> V <sub>1</sub>	D <sub>2</sub> R <sub>2</sub> V <sub>1</sub>	D <sub>2</sub> R <sub>2</sub> V <sub>2</sub>	D <sub>2</sub> R <sub>1</sub> V <sub>1</sub>	D <sub>3</sub> R <sub>2</sub> V <sub>2</sub>	D <sub>1</sub> R <sub>1</sub> V <sub>1</sub>	D <sub>2</sub> R <sub>1</sub> V <sub>2</sub>	D <sub>3</sub> R <sub>1</sub> V <sub>1</sub>	D <sub>1</sub> R <sub>2</sub> V <sub>2</sub>	D <sub>3</sub> R <sub>1</sub> V <sub>2</sub>	Bare	15 m

Plot No.	121	122	123	124	125	126	127	128	129	130	131	132	133	15 m
Treatment Code	D <sub>2</sub> R <sub>1</sub> V <sub>2</sub>	D <sub>1</sub> R <sub>1</sub> V <sub>2</sub>	D <sub>3</sub> R <sub>2</sub> V <sub>1</sub>	D <sub>3</sub> R <sub>2</sub> V <sub>2</sub>	D <sub>2</sub> R <sub>2</sub> V <sub>1</sub>	D <sub>1</sub> R <sub>2</sub> V <sub>2</sub>	D <sub>2</sub> R <sub>1</sub> V <sub>1</sub>	D <sub>1</sub> R <sub>2</sub> V <sub>1</sub>	D <sub>1</sub> R <sub>1</sub> V <sub>1</sub>	D <sub>3</sub> R <sub>1</sub> V <sub>2</sub>	D <sub>2</sub> R <sub>2</sub> V <sub>2</sub>	D <sub>3</sub> R <sub>1</sub> V <sub>1</sub>	Bare	15 m
													4 m	

### Light Soil

Plot No.	161	162	163	164	165	166	167	168	169	170	171	172	173	15 m
Treatment Code	D <sub>2</sub> R <sub>1</sub> V <sub>1</sub>	D <sub>3</sub> R <sub>2</sub> V <sub>1</sub>	D <sub>1</sub> R <sub>2</sub> V <sub>1</sub>	D <sub>3</sub> R <sub>2</sub> V <sub>2</sub>	D <sub>2</sub> R <sub>2</sub> V <sub>1</sub>	D <sub>2</sub> R <sub>1</sub> V <sub>2</sub>	Bare	D <sub>1</sub> R <sub>1</sub> V <sub>2</sub>	D <sub>1</sub> R <sub>2</sub> V <sub>2</sub>	D <sub>1</sub> R <sub>1</sub> V <sub>1</sub>	D <sub>3</sub> R <sub>1</sub> V <sub>1</sub>	D <sub>2</sub> R <sub>2</sub> V <sub>2</sub>	D <sub>3</sub> R <sub>1</sub> V <sub>2</sub>	15 m

Plot No.	174	175	176	177	178	179	180	181	182	183	184	185	186	15 m
Treatment Code	D <sub>2</sub> R <sub>2</sub> V <sub>2</sub>	D <sub>1</sub> R <sub>2</sub> V <sub>2</sub>	D <sub>3</sub> R <sub>2</sub> V <sub>1</sub>	D <sub>2</sub> R <sub>1</sub> V <sub>1</sub>	D <sub>2</sub> R <sub>1</sub> V <sub>2</sub>	D <sub>3</sub> R <sub>1</sub> V <sub>2</sub>	D <sub>1</sub> R <sub>2</sub> V <sub>1</sub>	D <sub>2</sub> R <sub>2</sub> V <sub>1</sub>	D <sub>3</sub> R <sub>1</sub> V <sub>1</sub>	Bare	D <sub>3</sub> R <sub>3</sub> V <sub>2</sub>	D <sub>1</sub> R <sub>1</sub> V <sub>1</sub>	D <sub>1</sub> R <sub>1</sub> V <sub>2</sub>	15 m
													3.8 m	

### Treatment Descriptions

#### Planting Date

#### Dark Soil

D<sub>1</sub>=May 10  
D<sub>2</sub>=May 24  
D<sub>3</sub>=June 15

#### Light Soil

D<sub>1</sub>=May 24  
D<sub>2</sub>=June 15  
D<sub>3</sub>=July 3

#### Row Width

R<sub>1</sub>=25 cm  
R<sub>2</sub>=76 cm

#### Variety

V<sub>1</sub>=Amsoy 71  
V<sub>2</sub>=Williams

Figure 103.1 Design and treatment descriptions of the 1979 Purdue Agronomy Farm soybean cultural practices experiment.

LARSPEC Identification Record Codes:

Factor		Level	
<u>Code</u>	<u>Description</u>	<u>Code</u>	<u>Description</u>
1:	Planting date	1:	May 10, 1979
		2:	May 24, 1979 "darker soil"
		3:	June 15, 1979
		1:	May 24, 1979
		2:	June 15, 1979 "lighter soil"
		3:	July 3, 1979
2:	Row width	1:	25 centimeters
		2:	76 centimeters
3:	Variety	1:	Amsoy 71
		2:	Williams
4:	Soil	1:	Chalmers silty clay loam - "darker"
		2:	Russell - "lighter soil"
5:	Block or replication	1:	First block
		2:	Second block

2. Experimenter Parameters.

Experimenter parameter 09: Air temperature as measured by a probe attached to the boom supporting the multiband radiometer in degrees Celsius.

Experimenter parameter 10: Radiant temperature as measured by a precision radiation thermometer (PRT-5) obliquely viewing the top surface of the canopy in degrees Celsius.

Dates Spectral Data Collected (Exotech 100)

Plot Number	Number of Observations Collected								
	5/29	6/4	6/11	6/14	6/15	6/21	6/25	6/26	7/2
121	-	2	2	2	2	2	2	2	2
122	2	2	2	2	2	2	2	2	2
123	-	2	2	2	2	2	2	2	2
124	-	2	2	2	2	2	2	2	2
125	-	2	2	2	2	2	2	2	2
126	2	2	2	2	2	2	2	2	2
127	-	2	2	2	2	2	2	2	2
128	2	2	2	2	2	2	2	2	2
129	2	2	2	2	2	2	2	2	2
130	-	2	2	2	2	2	2	2	2
131	-	2	2	2	2	2	2	2	2
132	2	2	2	2	2	2	2	2	2
133	-	-	-	-	-	2	2	2	2
134	-	-	-	-	-	2	2	2	-
135	2	2	2	2	2	2	2	2	2
136	2	2	2	2	2	2	2	2	2
137	-	2	2	2	2	2	2	2	2
138	-	2	2	2	2	2	2	2	2
139	2	2	2	2	2	2	2	2	2
140	-	2	2	2	2	2	2	2	2
141	-	2	2	2	2	2	2	2	2
142	-	2	2	2	2	2	2	2	2
143	-	2	2	2	2	2	2	2	2
144	2	2	2	2	2	2	2	2	2
145	-	2	2	2	2	2	2	2	2
146	2	2	2	2	2	2	2	2	-
161	-	-	-	-	-	2	2	2	2
162	-	-	-	-	-	2	2	2	2
163	-	-	2	2	2	2	2	2	2
164	-	-	-	-	-	2	2	2	2
165	-	-	-	-	-	2	2	2	2
166	-	-	-	2	2	2	2	2	2
167	-	-	2	-	-	2	2	2	2
168	-	-	2	2	2	2	2	2	2
169	-	-	2	2	2	2	2	2	2
170	-	-	2	2	2	2	2	2	2
171	-	-	-	-	-	2	2	2	2
172	-	-	-	-	-	2	2	2	2
173	-	-	-	-	-	2	2	2	2
174	-	-	-	-	-	2	2	2	2
175	-	-	2	2	2	2	2	2	2
176	-	-	-	-	-	2	2	2	2
177	-	-	-	-	-	2	2	2	2
178	-	-	-	2	2	2	2	2	2
179	-	-	-	-	-	2	2	2	2
180	-	-	2	2	2	2	2	2	2
181	-	-	-	-	-	2	2	2	2
182	-	-	-	-	-	2	2	2	2
183	-	-	2	-	-	2	2	2	2
184	-	-	-	-	-	2	2	2	2
185	-	-	2	2	2	2	2	2	2
186	-	-	2	2	2	2	2	2	2

Dates Spectral Data Collected (Exotech 100 con't)

Plot Number	Number of Observations Collected							
	7/10	7/16	7/18	8/12	9/4	9/9	9/17	9/24
121	-	2	2	2	2	2	2	2
122	-	2	2	2	2	2	2	2
123	-	2	2	2	2	2	2	2
124	-	2	2	2	2	2	2	2
125	-	2	2	2	2	2	2	2
126	-	2	2	2	2	2	2	2
127	-	2	2	2	2	2	2	2
128	-	2	2	2	2	2	2	2
129	-	2	2	2	2	2	2	2
130	-	2	2	2	2	2	2	2
131	-	2	2	2	2	2	2	2
132	-	2	2	2	2	2	2	2
133	-	2	2	2	2	2	2	2
134	-	-	2	2	2	2	2	2
135	-	-	2	2	2	2	2	2
136	-	-	2	2	2	2	2	2
137	-	-	2	2	2	2	2	2
138	-	-	2	2	2	2	2	2
139	-	-	2	2	2	2	2	2
140	-	-	2	2	2	2	2	2
141	-	-	2	2	2	2	2	2
142	-	-	2	2	2	2	2	2
143	-	-	2	2	2	2	2	2
144	-	-	2	2	2	2	2	2
145	-	-	2	2	2	2	2	2
146	-	-	2	2	2	2	2	2
161	2	2	-	2	2	2	2	2
162	2	2	-	2	2	2	2	2
163	2	2	-	2	2	2	2	2
164	2	2	-	2	2	2	2	2
165	2	2	-	2	2	2	2	2
166	2	2	-	2	2	2	2	2
167	2	2	-	2	2	2	2	2
168	2	2	-	2	2	2	2	2
169	2	2	-	2	2	2	2	2
170	2	2	-	2	2	2	2	2
171	2	2	-	2	2	2	2	2
172	2	2	-	2	2	2	2	2
173	2	2	2	2	2	2	2	2
174	2	2	2	2	2	2	2	2
175	2	2	2	2	2	2	2	2
176	2	2	2	2	2	2	2	2
177	2	2	2	2	2	2	2	2
178	2	2	2	2	2	2	2	2
179	2	2	2	2	2	2	2	2
180	2	2	2	2	2	2	2	2
181	2	2	2	2	2	2	2	2
182	2	2	2	2	2	2	2	2
183	2	2	2	2	2	2	2	2
184	2	2	2	2	2	2	2	2
185	2	2	2	2	2	2	2	2
186	2	2	2	2	2	2	2	2

Illumination Conditions for Spectral Data Collection (Exotech 100)

Date	Day of Year	Time Period (GMT)		Solar Zenith Angle Range (degrees)	Solar Azimuth Angle Range (degrees)	Cloud Cover (%)
		Start	Stop	max-min-max		
5/29	149	16:40	17:11	23 - 20	139-157	?
6/4	155	16:43	17:00	23 - 21	139-148	?
6/11	162	16:11	16:51	27 - 21	123-141	0-10
6/14	165	16:35	17:13	23 - 19	133-154	?
6/15	166	16:07	16:42	27 - 22	121-136	0
6/21	172	16:21	17:07	25 - 19	126-149	5-10
6/25	176	16:07	16:52	28 - 21	120-140	1-5
6/26	177	16:35	17:17	23 - 18	131-155	10
7/2	183	16:11	17:00	27 - 21	122-144	5
7/10	191	16:36	16:46	24 - 23	132-137	15
7/16	197	16:46	17:20	24 - 20	138-157	5
7/18	199	16:08	17:09	30 - 22	123-150	0-5
8/12	224	15:54	17:02	36 - 28	126-153	0
9/4	247	16:41	17:37	36 - 33	151-175	5
9/9	252	16:56	17:55	37 - 35	159-184	0
9/17	260	17:20	18:35	38 - 40	171-201	?
9/24	267	17:41	18:52	40 - 44	180-207	?

Dates Spectral Data Collected (Exotech 20C)

Plot Number	Number of Observations Collected	
	7/16	8/7
121	-	1
122	-	2
123	-	1
124	-	1
125	-	1
126	-	2
127	-	1
128	-	2
129	1	1
130	1	2
131	1	1
132	-	1
133	-	1

Illumination Conditions for Spectral Data Collection (Exotech 20C)

Date	Day of Year	Time Period (GMT)		Solar Zenith Angle Range	Solar Azimuth Angle Range	Cloud Cover (%)
		Start	Stop	(degrees) max-min-max	(degrees)	
7/16	197	17:50	18:03	19 - 19	177-186	5
8/7	219	18:21	19:49	25 - 34	196-235	0