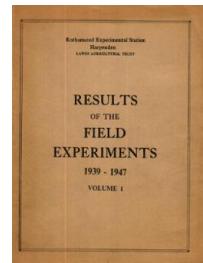


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Yields of the Field Experiments 1939-1947 Volume 1

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BA/1 Two-course Rotation

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Ba/1.1

TWO COURSE ROTATION EXPERIMENT

Long Hoos (begun in 1942)

Cumulative Effects of Agricultural Salt

The experiment was designed to test the cumulative effects of agricultural salt and muriate of potash, and to compare two methods of application of the salt.

The rotation is 1st year Sugar beet, 2nd year Barley.

There are 2 series (one for each crop in any particular year), each consisting of 4 blocks of 12 plots each. Area of each plot in acres:

Series	Total	Sugar Beet	Barley
		Harvested	
1	0.0219	0.0190	0.0207
2	0.0200	0.0173	0.0189

Treatments: all combinations of

- (1) Agricultural salt (rates for sugar beet): None (0), $2\frac{1}{2}$ cwt. (Na 1), 5 cwt. (Na 2) and $7\frac{1}{2}$ cwt. (Na 3) per acre.
- (2) Muriate of potash: None (0), the equivalent of half the single dressing of salt (K1) (approximately 1 cwt. K₂O per acre), the equivalent of the double dressing of salt (K2), applied to sugar beet at sowing.
- (3) Time of application of salt: in seed bed before sowing (A), before ploughing during the winter (B).
- (4) Salt applied to sugar beet only (0), salt repeated at half rate on barley (R).

The following interactions are partially confounded with block differences:-

(A-B) x R; (3-2+1-0) Na x (A-B); (3-2+1-0) Na x R;

and the interactions of these with K.

Basal dressings, applied to all plots at sowing:

Barley: 0.3 cwt. N per acre as sulphate of ammonia
Sugar beet: 0.8 cwt. N per acre as sulphate of ammonia
0.6 cwt. P₂O₅ per acre as superphosphate.

Crop Notes

Sugar beet: Klein E		Barley: Plumage Archer	
Sown	Lifted	Sown	Harvested
1942	April 25	Dec. 2	(Series 2 grew preliminary wheat)
1943	April 14	Nov. 12	March 13 Aug. 10
1944	April 22	Oct. 26, Nov. 23	March 8 Aug. 10
1945	April 12	Nov. 5	March 27 Aug. 8
1946	April 15	Nov. 22	March 21 Aug. 14
1947	April 25	Oct. 30	April 11 Aug. 11

Ba/1.2

In 1942, 1943, samples were taken at intervals from one end of each plot for physiological and chemical study. The yields given are corrected for the reduced area per plot. In 1944, 12 of the 48 plots of sugar beet were lifted Oct. 26th. This had an appreciable effect on tops and sugar percentage, which have been adjusted by means of a regression. There was no effect on the other results.

Ba/1.3

Two Course Rotation Experiment

		Sugar Beet						
		Year						
		Salt cwt.	1942	1943	1944	1945	1946	
		Roots (washed): tons per acre						
Muriate of potash K ₂ O cwt. per acre	0	14.98	15.46	8.51	16.18	15.34	5.92	
	2.5	16.95	17.60	10.96	17.96	17.71	9.04	
	5.0 (a)	17.12	17.63	10.61	17.15	16.86	9.33	
	7.5	16.72	16.68	9.69	16.86	16.32	9.23	
	Mean (b)	16.44	16.84	9.94	17.04	16.56	8.38	
0.0	0	14.73	16.97	8.04	16.97	15.19	7.48	
	2.5	16.08	17.03	11.25	16.88	17.08	8.50	
	5.0 (a)	16.86	17.12	10.53	17.34	17.61	9.99	
	7.5	17.61	16.08	11.34	16.39	17.16	9.74	
	Mean (b)	16.32	16.80	10.29	16.90	16.76	8.93	
1.0	0	15.68	16.87	9.34	16.57	16.93	7.54	
	2.5	16.28	16.45	10.96	17.12	17.56	8.72	
	5.0 (a)	16.65	16.91	10.28	17.55	17.21	9.26	
	7.5	17.28	16.87	11.24	16.21	17.02	10.20	
	Mean (b)	16.47	16.78	10.46	16.86	17.18	8.93	
		Salt applied						
		Winter	2.5	16.04	17.43	10.71	17.27	
			5.0 (a)	16.58	17.32	10.09	17.21	
			7.5	17.10	16.23	11.10	16.63	
			Mean (e)	16.57	16.99	10.63	17.04	
		In seed bed	2.5	16.83	16.62	11.40	17.37	
			5.0 (a)	17.17	17.12	10.86	17.48	
			7.5	17.31	16.86	10.41	16.35	
			Mean (e)	17.10	16.87	10.89	17.07	
		Mean						
			0	15.13	16.43	8.63	16.57	
			2.5	16.44	17.03	11.06	17.32	
			5.0 (c)	16.88	17.22	10.47	17.35	
			7.5	17.20	16.54	10.76	16.49	
		Mean						
		Standard errors (28 d.f. in 1942, 22 d.f. in other years)	(a)	0.517	0.577	0.503	0.384	
			(b)	0.259	0.289	0.251	0.192	
			(c)	0.299	0.333	0.290	0.222	
			(d)	0.395	0.441	0.384	0.294	
			(e)	0.239	0.266	0.232	0.177	
		Per plot						
		%	age	1.035	1.154	1.005	0.769	
			age	6.3	6.9	9.8	4.5	
		N						

Ba/I.4

Sugar Beet

	Salt cwt. per acre	Year					
		1942	1943	1944	1945	1946	1947
Muriate of potash		Sugar Percentage					
K ₂ O cwt. per acre	0	18.19	18.44	16.24	18.03	17.04	19.34
0.0	2.5	18.02	18.84	16.93	18.47	17.04	20.42
	5.0 (a)	18.54	18.85	17.02	18.81	17.14	21.07
	7.5	18.31	18.81	16.60	18.57	17.18	20.40
	Mean (b)	18.27	18.74	16.70	18.47	17.10	20.31
	0	18.19	18.48	16.62	18.49	16.96	20.86
1.0	2.5	18.30	18.97	16.84	18.46	16.79	20.48
	5.0 (a)	18.16	18.72	16.76	18.38	17.29	20.58
	7.5	17.98	18.60	16.66	18.64	17.16	20.54
	Mean (b)	18.16	18.69	16.72	18.49	17.05	20.62
	0	18.26	18.78	16.68	18.57	17.49	20.48
2.0	2.5	18.53	18.83	16.92	18.83	17.38	20.76
	5.0 (a)	18.38	18.84	16.78	18.58	17.21	20.43
	7.5	18.26	18.60	16.89	18.70	16.98	21.03
	Mean (b)	18.35	18.76	16.82	18.67	17.26	20.68
Salt applied	2.5	18.30	19.00	16.85	18.64	17.08	20.33
Winter	5.0 (d)	18.34	18.85	16.72	18.53	17.10	20.76
	7.5	18.08	18.61	16.83	18.63	17.10	20.94
	Mean (e)	18.24	18.82	16.80	18.60	17.09	20.68
In seed bed	2.5	18.27	18.76	16.94	18.53	17.05	20.78
	5.0 (d)	18.37	18.76	16.98	18.65	17.33	20.63
	7.5	18.28	18.73	16.60	18.65	17.12	20.38
	Mean (e)	18.31	18.75	16.84	18.61	17.17	20.60
Mean	0	18.21	18.57	16.51	18.36	17.16	20.23
	2.5	18.28	18.88	16.90	18.59	17.07	20.55
	5.0 (c)	18.36	18.80	16.85	18.59	17.21	20.69
	7.5	18.18	18.67	16.72	18.64	17.11	20.66
	Mean	18.26	18.73	16.74	18.54	17.14	20.54
Standard errors	(a)	0.180		0.220	0.165	0.262	
(28 d.f. in 1942,	(b)	0.090		0.110	0.082	0.131	
21 d.f. in 1944,	(c)	0.104		0.127	0.095	0.151	
22 d.f. in other	(d)	0.137		0.168	0.126	0.200	
years)	(e)	0.083		0.102	0.076	0.121	
	Per plot	0.360		0.441	0.329	0.524	

Ba/1.5.

Two Course Rotation ExperimentSugar Beet

	Salt cwt. per acre	Year					
		1942	1943	1944	1945	1946	1947
Muriate of potash K_2O cwt. per acre		Total sugar: cwt. per acre					
0.0	0	54.5	57.0	27.2	58.3	52.3	23.7
	2.5	61.1	66.3	36.6	66.3	60.2	37.2
	5.0 (a)	63.5	66.5	36.1	64.5	57.9	39.5
	7.5	61.2	62.7	32.2	62.7	56.0	37.9
	Mean (b)	60.1	63.1	33.0	63.0	56.6	34.6
	0	53.6	62.7	27.1	62.8	51.5	31.3
1.0	2.5	58.8	64.6	37.4	62.3	57.5	35.1
	5.0 (a)	61.2	64.1	35.8	63.8	60.9	41.1
	7.5	63.3	59.8	37.7	61.1	58.8	40.4
	Mean (b)	59.2	62.8	34.5	62.5	57.2	37.0
	0	57.3	63.3	31.6	61.5	59.2	31.1
	2.5	60.4	62.0	37.1	64.4	61.0	36.5
2.0	5.0 (a)	61.1	63.9	34.5	65.2	59.2	38.4
	7.5	63.1	62.8	37.9	60.6	57.8	42.9
	Mean (b)	60.5	63.0	35.3	62.9	59.3	37.2
	0	58.6	66.2	35.8	64.3	60.3	35.4
	2.5	60.8	65.3	34.1	63.9	59.4	40.0
	5.0 (d)	61.8	60.3	37.3	61.7	55.5	42.5
In seed bed	7.5	60.4	63.9	35.7	63.3	58.4	39.3
	2.5	61.6	62.4	38.3	64.4	58.9	37.2
	5.0 (d)	63.1	64.3	36.9	65.1	59.3	39.4
	7.5	63.3	63.2	34.6	61.3	59.7	38.3
	Mean (e)	62.6	63.3	36.6	63.6	59.3	38.3
	0	55.1	61.0	28.6	60.9	54.3	28.7
Mean	2.5	60.1	64.3	37.0	64.3	59.6	36.3
	5.0 (c)	61.9	64.8	35.5	64.5	59.3	39.7
	7.5	62.5	61.8	35.9	61.5	57.5	40.4
	Mean	59.9	63.0	34.3	62.8	57.7	36.3
	(a)	1.85	2.17	1.74	1.52	1.91	2.50
Standard errors (28 d.f. in 1942, 22 d.f. in other years)	(b)	0.92	1.08	0.87	0.76	0.96	1.25
	(c)	1.07	1.25	1.00	0.87	1.10	1.44
	(d)	1.41	1.66	1.32	1.16	1.46	1.91
	(e)	0.85	1.00	0.80	0.71	0.88	1.15
	Per plot	3.69	4.34	3.47	3.03	3.82	5.00
	%age	6.2	6.9	10.1	4.8	6.6	13.8

Ba/1.6

Sugar Beet

	Salt cwt. per acre	1942	1943	1944	1945	1946	1947
Tops: tons per acre							
Muriate of potash K_2O cwt. per acre	0	10.06	9.55	10.69	12.20	17.05	4.59
0.0	2.5	11.23	10.76	13.20	11.82	18.01	6.94
	5.0 (a)	10.56	11.55	13.01	11.80	17.71	7.23
	7.5	11.42	11.60	12.52	12.74	17.21	7.01
	Mean (b)	10.82	10.86	12.36	12.14	17.50	6.44
1.0	0	10.41	10.62	12.40	11.89	17.73	5.81
	2.5	12.19	11.10	13.80	13.58	17.73	6.40
	5.0 (a)	10.20	10.50	11.98	12.43	16.65	7.66
	7.5	13.30	10.74	14.27	12.20	18.18	7.26
	Mean (b)	11.53	10.74	13.11	12.52	17.57	6.78
2.0	0	10.43	10.24	11.70	11.76	17.31	5.83
	2.5	11.74	10.17	12.06	12.05	16.93	6.59
	5.0 (a)	11.42	10.34	11.49	11.49	17.07	7.30
	7.5	11.77	11.12	12.63	11.45	16.49	7.48
	Mean (b)	11.34	10.47	11.97	11.69	16.95	6.80
Salt applied Winter	2.5	11.55	10.49	12.69	12.08	17.83	6.63
	5.0 (d)	10.58	10.80	12.47	11.62	17.54	7.52
	7.5	12.17	11.06	13.89	11.91	17.48	7.62
	Mean (e)	11.43	10.78	13.02	11.87	17.62	7.26
In seed bed	2.5	11.88	10.87	13.34	12.89	17.29	6.65
	5.0 (d)	10.87	10.79	11.86	12.19	16.75	7.27
	7.5	12.17	11.25	12.39	12.35	17.10	6.88
	Mean (e)	11.64	10.97	12.53	12.48	17.05	6.93
Mean	0	10.30	10.14	11.59	11.95	17.36	5.41
	2.5 (c)	11.72	10.68	13.02	12.48	17.56	6.64
	5.0	10.73	10.80	12.16	11.91	17.14	7.40
	7.5	12.17	11.15	13.14	12.13	17.29	7.25
	Mean	11.23	10.69	12.48	12.12	17.34	6.68
Standard errors (28 d.f. in 1942, 21 d.f. in 1944, 22 d.f. in other years)	(a)	0.569	0.600	0.680	0.382	0.813	0.353
	(b)	0.334	0.300	0.340	0.191	0.407	0.177
	(c)	0.386	0.346	0.392	0.221	0.470	0.204
	(d)	0.511	0.458	0.519	0.292	0.621	0.270
	(e)	0.309	0.277	0.314	0.176	0.375	0.163
	Per plot %age	1.338	1.200	1.359	0.764	1.627	0.707
		11.9	11.2	10.9	6.3	9.4	10.6

Two Course Rotation Experiment

Ba/1.7

X

	Salt cwt. per acre	Sugar Beet					
		1942	1943	1944	1945	1946*	1947
Muriate of potash K_2O cwt. per acre		Plant Number: thousands per acre					
0.0	0	25.9	23.5	27.7	27.6	16.3	
	2.5	25.3	25.6	29.1	28.5	19.5	
	5.0 (a)	26.0	25.3	27.8	28.4	19.1	
	7.5	26.3	24.5	24.6	28.1	19.1	
	Mean (b)	25.9	24.7	27.3	28.2	18.5	
1.0	0	25.2	23.9	27.9	28.3	19.2	
	2.5	23.4	24.5	27.7	27.7	19.7	
	5.0 (a)	27.4	24.1	29.2	28.6	21.2	
	7.5	27.3	22.6	26.7	27.9	20.6	
	Mean (b)	25.8	23.8	27.9	28.1	20.2	8
2.0	0	24.8	25.1	27.8	28.2	18.1	
	2.5	24.5	22.7	27.7	27.9	18.8	
	5.0 (a)	27.1	24.0	28.5	27.6	19.7	
	7.5	26.5	23.5	27.7	27.0	22.1	
	Mean (b)	25.7	23.8	27.9	27.7	19.7	
Salt applied Winter	2.5	24.8	24.1	28.3	27.8	18.8	
	5.0 (d)	27.3	24.3	28.7	27.8	19.6	
	7.5	26.5	23.8	26.2	27.9	21.4	
	Mean (e)	26.2	24.1	27.7	27.8	19.9	
In seed bed	2.5	24.0	24.4	28.0	28.3	19.8	
	5.0 (d)	26.3	24.6	28.4	28.6	20.4	
	7.5	26.9	23.2	26.4	27.4	19.8	
	Mean (e)	25.7	24.1	27.6	28.1	20.0	
Mean	0	25.3	24.1	27.8	28.0	17.9	
	2.5	24.4	24.3	28.2	28.0	19.3	
	5.0 (c)	26.8	24.5	28.5	28.2	20.0	
	7.5	26.7	23.5	26.3	27.7	20.6	
	Mean	25.8	24.1	27.7	28.0	19.5	
In seed bed	2.5	24.0	24.4	28.0	28.3	19.8	8
	5.0 (d)	26.3	24.6	28.4	28.6	20.4	
	7.5	26.9	23.2	26.4	27.4	19.8	
	Mean (e)	25.7	24.1	27.6	28.1	20.0	
Standard errors (28 d.f. in 1942, 22 d.f. in other years)	(a)	0.93	1.00	0.94	0.56		
	(b)	0.46	0.50	0.47	0.28		
	(c)	0.54	0.58	0.55	0.32		
	(d)	0.71	0.76	0.72	0.43		
	(e)	0.43	0.46	0.44	0.26		
	Per plot	1.86	2.00	1.89	1.12		
	%age	7.2	8.3	6.8	4.0		

* The plant numbers were not counted in 1946.

Ba/1.8

Barley

Salt applied in previous year cwt. per acre	Year	Salt applied in previous year cwt. per acre				
		1943	1944	1945	1946	1947
Muriate of potash applied in previous year K ₂ O cwt. per acre	0	24.0	30.0	27.1	32.6	23.1
	2.5	24.9	31.1	27.8	31.9	23.9
	5.0 (a)	23.8	30.2	27.5	33.0	22.1
	0.0	7.5	23.7	29.8	26.5	32.0
		Mean (b)	24.1	30.3	27.2	32.4
		0	22.5	30.3	26.4	34.3
		2.5	26.9	29.6	29.4	32.7
	1.0	5.0 (a)	22.7	30.5	26.6	35.5
		7.5	26.6	30.1	29.5	32.4
		Mean (b)	24.7	30.1	28.0	33.7
		0	23.3	29.4	26.1	32.8
		2.5	25.7	30.7	28.0	33.0
	2.0	5.0 (a)	23.9	29.4	27.2	33.3
		7.5	26.4	30.7	29.3	31.9
		Mean (b)	24.8	30.0	27.6	32.8
Salt in current year	2.5	24.4	30.8	27.6	33.2	23.4
	5.0 (c)	22.7	30.0	26.4	33.4	22.7
	None	7.5	26.1	29.8	28.7	31.3
		Mean (d)	24.4	30.2	27.6	32.6
		2.5	27.3	30.1	29.1	31.9
		5.0 (c)	24.2	30.1	27.8	34.5
	Half Rate	7.5	25.1	30.5	28.2	32.9
		Mean (d)	25.5	30.2	28.4	33.1
Salt applied Winter	2.5	25.1	30.0	27.9	32.7	25.4
	5.0 (c)	23.2	30.0	26.8	34.3	22.4
	Winter	7.5	27.2	30.5	29.5	32.4
		Mean (d)	25.2	30.2	28.1	33.1
		2.5	26.6	31.0	28.9	32.4
		5.0 (c)	23.8	30.1	27.4	33.5
	In seed bed	7.5	23.9	29.8	27.4	31.8
		Mean (d)	24.8	30.3	27.9	32.6
Mean	0	23.3	29.9	26.5	33.2	23.3
	2.5	25.8	30.5	28.4	32.5	24.8
	5.0 (e)	23.5	30.0	27.1	33.9	22.4
	7.5	25.6	30.2	28.4	32.1	23.3
	Mean	24.5	30.1	27.6	32.9	23.4
Standard errors (22 d.f.)	(a)	0.92	0.68	0.66	1.43	0.82
	(b)	0.46	0.34	0.33	0.72	0.41
	(c)	0.71	0.52	0.50	1.09	0.63
	(d)	0.43	0.32	0.31	0.66	0.38
	(e)	0.53	0.40	0.38	0.83	0.47
Per plot	1.85	1.37	1.31	2.86	1.64	
%age	7.5	4.6	4.8	8.7	7.0	

Two Course Rotation Experiment

Ba/1.9

Barley

		Salt applied in previous year cwt. per acre	Year				
			1943	1944	1945	1946	1947
Muriate of potash applied in previous year K ₂ O cwt. per acre	0.0	0	27.9	28.9	31.7	36.5	21.2
		2.5	25.7	28.9	33.0	36.6	22.0
		5.0 (a)	25.8	27.3	32.7	36.3	21.1
		7.5	24.6	28.4	30.2	37.5	20.9
		Mean (b)	26.0	28.4	31.9	36.7	21.3
	1.0	0	23.9	28.9	32.2	36.2	22.2
		2.5	29.4	28.4	34.3	38.3	24.4
		5.0 (a)	24.3	28.4	32.2	39.0	21.8
		7.5	27.6	29.2	34.8	37.3	24.3
		Mean (b)	26.3	28.7	33.4	37.7	23.2
Salt in current year	None	0	24.8	27.4	31.0	38.0	22.1
		2.5	27.1	29.0	32.9	37.8	22.7
		5.0 (a)	25.4	27.6	32.8	37.7	21.5
		7.5	27.8	27.6	34.5	38.6	23.0
		Mean (b)	26.3	27.9	32.8	38.0	22.3
	Half rate	2.5	25.7	29.1	32.6	37.9	22.2
		5.0 (c)	24.5	28.3	32.4	37.9	22.0
		7.5	27.2	28.3	34.1	37.7	23.8
		Mean (d)	25.8	28.6	33.0	37.8	22.7
		2.5	29.1	28.5	34.1	37.3	23.8
Salt applied Winter	Winter	5.0 (c)	25.8	27.3	32.7	37.4	21.0
		7.5	26.2	28.5	32.2	37.8	21.6
		Mean (d)	27.0	28.1	33.0	37.5	22.1
		2.5	26.9	28.4	33.1	37.2	23.0
		5.0 (c)	24.8	28.2	32.5	38.6	22.1
	In seed bed	7.5	27.8	29.0	34.4	38.5	20.5
		Mean (d)	26.5	28.5	33.4	38.1	21.9
		2.5	27.9	29.2	33.7	37.9	23.1
		5.0 (c)	25.5	27.4	32.6	36.7	20.8
		7.5	25.6	27.8	31.9	37.1	24.9
Mean		Mean (a)	26.4	28.1	32.7	37.2	22.9
		0	25.5	28.4	31.6	36.9	21.8
		2.5	27.4	28.8	33.4	37.6	23.0
		5.0 (e)	25.2	27.8	32.6	37.7	21.5
		7.5	26.7	28.4	33.2	37.8	22.7
	Mean	Mean	26.2	28.4	32.7	37.5	22.3
Standard errors (22 d.f.)			(a)		0.80	1.25	
			(b)		0.39	0.62	
			(c)		0.61	0.95	
			(d)		0.37	0.58	
			(e)		0.46	0.72	
			Per plot		1.61	2.50	
			%age		4.9	6.7	

PERIOD	TIME	AMOUNT	TYPE	STATE/PROVINCE	REMARKS
5.15	2.30	1.10	0.50	2.10	(a) C
5.20	2.30	0.45	0.45	2.10	(b) C
5.25	2.30	5.00	5.00	2.10	(c) C
6.00	2.30	2.00	2.00	2.10	(d) C
6.15	2.30	0.45	0.45	2.10	(e) C
6.30	2.30	3.00	3.00	2.10	(f) C
6.45	2.30	4.00	4.00	2.10	(g) C
7.00	2.30	4.00	4.00	2.10	(h) C
7.15	2.30	2.00	2.00	2.10	(i) C
7.30	2.30	4.00	4.00	2.10	(j) C
7.45	2.30	4.00	4.00	2.10	(k) C
8.00	2.30	0.50	0.50	2.10	(l) C
8.15	2.30	0.50	0.50	2.10	(m) C
8.30	2.30	0.45	0.45	2.10	(n) C
8.45	2.30	0.45	0.45	2.10	(o) C
9.00	2.30	0.45	0.45	2.10	(p) C
9.15	2.30	0.45	0.45	2.10	(q) C
9.30	2.30	0.45	0.45	2.10	(r) C
9.45	2.30	0.45	0.45	2.10	(s) C
10.00	2.30	0.45	0.45	2.10	(t) C
10.15	2.30	0.45	0.45	2.10	(u) C
10.30	2.30	0.45	0.45	2.10	(v) C
10.45	2.30	0.45	0.45	2.10	(w) C
11.00	2.30	0.45	0.45	2.10	(x) C
11.15	2.30	0.45	0.45	2.10	(y) C
11.30	2.30	0.45	0.45	2.10	(z) C
11.45	2.30	0.45	0.45	2.10	(aa) C
12.00	2.30	0.45	0.45	2.10	(bb) C
12.15	2.30	0.45	0.45	2.10	(cc) C
12.30	2.30	0.45	0.45	2.10	(dd) C
12.45	2.30	0.45	0.45	2.10	(ee) C
1.00	2.30	0.45	0.45	2.10	(ff) C
1.15	2.30	0.45	0.45	2.10	(gg) C
1.30	2.30	0.45	0.45	2.10	(hh) C
1.45	2.30	0.45	0.45	2.10	(ii) C
1.50	2.30	0.45	0.45	2.10	(jj) C
1.55	2.30	0.45	0.45	2.10	(kk) C
1.58	2.30	0.45	0.45	2.10	(ll) C
1.59	2.30	0.45	0.45	2.10	(mm) C
1.60	2.30	0.45	0.45	2.10	(nn) C
1.61	2.30	0.45	0.45	2.10	(oo) C
1.62	2.30	0.45	0.45	2.10	(pp) C
1.63	2.30	0.45	0.45	2.10	(qq) C
1.64	2.30	0.45	0.45	2.10	(rr) C
1.65	2.30	0.45	0.45	2.10	(ss) C
1.66	2.30	0.45	0.45	2.10	(tt) C
1.67	2.30	0.45	0.45	2.10	(uu) C
1.68	2.30	0.45	0.45	2.10	(vv) C
1.69	2.30	0.45	0.45	2.10	(ww) C
1.70	2.30	0.45	0.45	2.10	(xx) C
1.71	2.30	0.45	0.45	2.10	(yy) C
1.72	2.30	0.45	0.45	2.10	(zz) C
1.73	2.30	0.45	0.45	2.10	(aa) C
1.74	2.30	0.45	0.45	2.10	(bb) C
1.75	2.30	0.45	0.45	2.10	(cc) C
1.76	2.30	0.45	0.45	2.10	(dd) C
1.77	2.30	0.45	0.45	2.10	(ee) C
1.78	2.30	0.45	0.45	2.10	(ff) C
1.79	2.30	0.45	0.45	2.10	(gg) C
1.80	2.30	0.45	0.45	2.10	(hh) C
1.81	2.30	0.45	0.45	2.10	(ii) C
1.82	2.30	0.45	0.45	2.10	(jj) C
1.83	2.30	0.45	0.45	2.10	(kk) C
1.84	2.30	0.45	0.45	2.10	(ll) C
1.85	2.30	0.45	0.45	2.10	(mm) C
1.86	2.30	0.45	0.45	2.10	(nn) C
1.87	2.30	0.45	0.45	2.10	(oo) C
1.88	2.30	0.45	0.45	2.10	(pp) C
1.89	2.30	0.45	0.45	2.10	(qq) C
1.90	2.30	0.45	0.45	2.10	(rr) C
1.91	2.30	0.45	0.45	2.10	(ss) C
1.92	2.30	0.45	0.45	2.10	(tt) C
1.93	2.30	0.45	0.45	2.10	(uu) C
1.94	2.30	0.45	0.45	2.10	(vv) C
1.95	2.30	0.45	0.45	2.10	(ww) C
1.96	2.30	0.45	0.45	2.10	(xx) C
1.97	2.30	0.45	0.45	2.10	(yy) C
1.98	2.30	0.45	0.45	2.10	(zz) C
1.99	2.30	0.45	0.45	2.10	(aa) C
2.00	2.30	0.45	0.45	2.10	(bb) C
2.01	2.30	0.45	0.45	2.10	(cc) C
2.02	2.30	0.45	0.45	2.10	(dd) C
2.03	2.30	0.45	0.45	2.10	(ee) C
2.04	2.30	0.45	0.45	2.10	(ff) C
2.05	2.30	0.45	0.45	2.10	(gg) C
2.06	2.30	0.45	0.45	2.10	(hh) C
2.07	2.30	0.45	0.45	2.10	(ii) C
2.08	2.30	0.45	0.45	2.10	(jj) C
2.09	2.30	0.45	0.45	2.10	(kk) C
2.10	2.30	0.45	0.45	2.10	(ll) C
2.11	2.30	0.45	0.45	2.10	(mm) C
2.12	2.30	0.45	0.45	2.10	(nn) C
2.13	2.30	0.45	0.45	2.10	(oo) C
2.14	2.30	0.45	0.45	2.10	(pp) C
2.15	2.30	0.45	0.45	2.10	(qq) C
2.16	2.30	0.45	0.45	2.10	(rr) C
2.17	2.30	0.45	0.45	2.10	(ss) C
2.18	2.30	0.45	0.45	2.10	(tt) C
2.19	2.30	0.45	0.45	2.10	(uu) C
2.20	2.30	0.45	0.45	2.10	(vv) C
2.21	2.30	0.45	0.45	2.10	(ww) C
2.22	2.30	0.45	0.45	2.10	(xx) C
2.23	2.30	0.45	0.45	2.10	(yy) C
2.24	2.30	0.45	0.45	2.10	(zz) C
2.25	2.30	0.45	0.45	2.10	(aa) C
2.26	2.30	0.45	0.45	2.10	(bb) C
2.27	2.30	0.45	0.45	2.10	(cc) C
2.28	2.30	0.45	0.45	2.10	(dd) C
2.29	2.30	0.45	0.45	2.10	(ee) C
2.30	2.30	0.45	0.45	2.10	(ff) C
2.31	2.30	0.45	0.45	2.10	(gg) C
2.32	2.30	0.45	0.45	2.10	(hh) C
2.33	2.30	0.45	0.45	2.10	(ii) C
2.34	2.30	0.45	0.45	2.10	(jj) C
2.35	2.30	0.45	0.45	2.10	(kk) C
2.36	2.30	0.45	0.45	2.10	(ll) C
2.37	2.30	0.45	0.45	2.10	(mm) C
2.38	2.30	0.45	0.45	2.10	(nn) C
2.39	2.30	0.45	0.45	2.10	(oo) C
2.40	2.30	0.45	0.45	2.10	(pp) C
2.41	2.30	0.45	0.45	2.10	(qq) C
2.42	2.30	0.45	0.45	2.10	(rr) C
2.43	2.30	0.45	0.45	2.10	(ss) C
2.44	2.30	0.45	0.45	2.10	(tt) C
2.45	2.30	0.45	0.45	2.10	(uu) C
2.46	2.30	0.45	0.45	2.10	(vv) C
2.47	2.30	0.45	0.45	2.10	(ww) C
2.48	2.30	0.45	0.45	2.10	(xx) C
2.49	2.30	0.45	0.45	2.10	(yy) C
2.50	2.30	0.45	0.45	2.10	(zz) C
2.51	2.30	0.45	0.45	2.10	(aa) C
2.52	2.30	0.45	0.45	2.10	(bb) C
2.53	2.30	0.45	0.45	2.10	(cc) C
2.54	2.30	0.45	0.45	2.10	(dd) C
2.55	2.30	0.45	0.45	2.10	(ee) C
2.56	2.30	0.45	0.45	2.10	(ff) C
2.57	2.30	0.45	0.45	2.10	(gg) C
2.58	2.30	0.45	0.45	2.10	(hh) C
2.59	2.30	0.45	0.45	2.10	(ii) C
2.60	2.30	0.45	0.45	2.10	(jj) C
2.61	2.30	0.45	0.45	2.10	(kk) C
2.62	2.30	0.45	0.45	2.10	(ll) C
2.63	2.30	0.45	0.45	2.10	(mm) C
2.64	2.30	0.45	0.45	2.10	(nn) C
2.65	2.30	0.45	0.45	2.10	(oo) C
2.66	2.30	0.45	0.45	2.10	(pp) C
2.67	2.30	0.45	0.45	2.10	(qq) C
2.68	2.30	0.45	0.45	2.10	(rr) C
2.69	2.30	0.45	0.45	2.10	(ss) C
2.70	2.30	0.45	0.45	2.10	(tt) C
2.71	2.30	0.45	0.45	2.10	(uu) C
2.72	2.30	0.45	0.45	2.10	(vv) C
2.73	2.30	0.45	0.45	2.10	(ww) C
2.74	2.30	0.45	0.45	2.10	(xx) C
2.75	2.30	0.45	0.45	2.10	(yy) C
2.76	2.30	0.45	0.45	2.10	(zz) C
2.77	2.30	0.45	0.45	2.10	(aa) C
2.78	2.30	0.45	0.45	2.10	(bb) C
2.79	2.30	0.45	0.45	2.10	(cc) C
2.80	2.30	0.45	0.45	2.10	(dd) C
2.81	2.30	0.45	0.45	2.10	(ee) C
2.82	2.30	0.45	0.45	2.10	(ff) C
2.83	2.30	0.45	0.45	2.10	(gg) C
2.84	2.30	0.45	0.45	2.10	(hh) C
2.85	2.30	0.45	0.45	2.10	(ii) C
2.86	2.30	0.45	0.45	2.10	(jj) C
2.87	2.30	0.45	0.45	2.10	(kk) C
2.88	2.30	0.45	0.45	2.10	(ll) C
2.89	2.30	0.45	0.45	2.10	(mm) C
2.90	2.30	0.45	0.45	2.10	(nn) C
2.91	2.30	0.45	0.45	2.10	(oo) C
2.92	2.30	0.45	0.45	2.10	(pp) C
2.93	2.30	0.45	0.45	2.10	(qq) C
2.94	2.30	0.45	0.45	2.10	(rr) C
2.95	2.30	0.45	0.45	2.10	(ss) C
2.96	2.30	0.45	0.45	2.10	(tt) C
2.97	2.30	0.45	0.45	2.10	(uu) C
2.98	2.30	0.45	0.45	2.10	(vv) C
2.99	2.30	0.45	0.45	2.10	(ww) C
3.00	2.30	0.45	0.45	2.10	(xx) C
3.01	2.30	0.45	0.45	2.10	(yy) C
3.02	2.30	0.45	0.45	2.10	(zz) C
3.03	2.30	0.45	0.45	2.10	(aa) C
3.04	2.30	0.45	0.45	2.10	(bb) C
3.05	2.30	0.45	0.45	2.10	(cc) C
3.06	2.30	0.45	0.45	2.10	(dd) C
3.07	2.30	0.45	0.45	2.10	(ee) C
3.08	2.30	0.45	0.45	2.10	(ff) C
3.09	2.30	0.45	0.45	2.10	(gg) C
3.10	2.30	0.45</			