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Yields of the Field Experiments 1981

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81/R/CS/200 and 81/W/CS/200 Factors Affecting Yield - Ryegrass, White Clover, Lucerne

Rothamsted Research

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81/R/CS/200 and 81/W/CS/200

FACTORS AFFECTING YIELD

Object: To study some of the factors limiting yield of grass, clover and lucerne - Rothamsted (R), Pastures and Woburn (W), Butt Furlong.

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The fifth year, ryegrass, white clover, lucerne.

For previous years see 77-80/R&W/CS/200.

Design: Single replicate of 2 plots split into 50.

Whole plot dimensions: Pastures (R): 23.8 x 24.5.
Butt Furlong (W): 22.3 x 24.5.

Treatments: Combinations of:-

Whole plots

1. IRRIGATN	Irrigation:
NONE	None
FULL	Irrigated to reduce a soil moisture deficit of 25 mm to zero

Sub plots

2. TREATMNT	Treatments, combinations of:
	Species:
	Ryegrass, S.23, (RG)
	Ryegrass, S.23 + Clover, Blanca (GB)
	Ryegrass, S.23 + Clover, S.100 (GS)
	Clover, Blanca (CL)
	Lucerne, Vertus (LU)
	Cutting frequencies:
	Three times (3)
	Six times (6)
	Amounts of nitrogen fertiliser (kg N total per annum, applied as (25:0:16)):
	0, 100, 200, 300, 400, 500, 600 (N0, N1, N2, N3, N4, N5, N6)
	Times of applying nitrogen fertiliser:
	Not applied (--), N0 only
	Divided equally between cuts (DE)
	In spring only (SP)
	Half in spring, half in summer (SS)

81/R/CS/200 and 81/W/CS/200

Control of pathogens:

None (-)

Controlled (C)

The following combinations are tested:

RG6N0---	GB3N0--- (duplicated)	CL3N0--- (duplicated)
RG6N1DE-	GB3N1DE-	CL3N2DE-
RG6N2DE-	GB3N2DE-	CL3N0--C
RG6N3DE-	GB3N3DE-	CL3N2DEC
RG6N4DE-	GB3N4DE-	
RG6N5DE-		LU3N0---
RG6N6DE-	GB3N0--C	LU3N0--C
	GB3N1DEC	
GB6N0---	GB3N2DEC	
GB6N1DE-	GB3N3DEC	
GB6N2DE-	GB3N4DEC	
GB6N3DE-		
GB6N4DE-	GB3N1SP- (duplicated)	
	GB3N1SS-	
GS6N0---	GB3N2SS	
GS6N1DE-		
GS6N2DE-	RG3N2DE-	
GS6N3DE-	RG3N2DEC	
GS6N4DE-		

NOTES: (1) Pathogen control consisted of:- (1) Aldicarb at 10 kg applied in the spring except to LU which received phorate at 5.0 kg, (2) benomyl foliar spray at 0.56 kg + phorate at 5.0 kg, applied as granules, after each cut, (3) four additional benomyl foliar sprays at 0.56 kg in winter, (4) Methiocarb at 0.48 kg, as pellets, applied at monthly intervals from October.

(2) Irrigation was applied as follows (mm water):

Pastures (R)		Butt Furlong (W)	
18 June	25	19 May	25
2 July	25	12 June	12.5
8 July	25	19 June	12.5
2 Sept	25	25 June	25
		9 July	20
Total	100	16 July	12.5
		5 Aug	12.5
		20 Aug	25
		3 Sept	25
		Total	170

(3) NO plots received 192 kg K2O, as muriate of potash, after the fourth cutting occasion.

Standard applications:

Pastures (R) All plots: Manures: (0:14:28) at 1070 kg. Weedkillers:

Propyzamide at 0.70 kg in 700 l to CL and LU plots only.

Dicamba with mecoprop and MCPA (as 'Tetralex Plus' at 4.2 l) in 340 l to RG plots only.

81/R/CS/200 and 81/W/CS/200

Butt Furlong (W) All plots: Manures: Magnesian limestone at 2.5 t, (0:14:28) at 1080 kg. Propyzamide at 0.70 kg in 700 l to CL and LU plots only. Dicamba with mecoprop and MCPA (as 'Tetralix Plus' at 4.2 l) in 340 l to RG plots only.

Seed: S23 Perennial ryegrass alone sown at 20 kg.

S23 Perennial ryegrass sown at 10 kg either with Blanca white clover sown at 4 kg or with S.100 white clover at 4 kg.

Blanca white clover alone sown at 4 kg.

Lucerne, Vertus sown at 10 kg, inoculated with Rhizobium.

Pastures (R) sown: 20 May, 1977.

Butt Furlong (W) sown: 23 May, 1977.

Cultivations, etc.:-

Pastures (R): Methiocarb applied: 2 Oct, 1980; 6 Nov, 3 Dec, 7 Jan, 1981; 5 Feb, 8 Apr, 14 May, 10 June, 9 July, 4 Aug, 3 Sept. Propyzamide applied: 13 Oct, 1980. Benomyl applied: 4 Nov, 2 Dec, 6 Jan, 1981; 4 Feb. PK applied: 21 Oct, 1980. NK applied: 5 Mar, 1981. Aldicarb applied to all C plots except LU; phorate applied to C plots of LU: 19 Mar. Weedkillers applied to RG plots: 5 May. NK, benomyl and phorate applied: 12 May, 9 June, 7 July, 4 Aug, 1 Sept. '6 cut' plots cut: 12 May, 9 June, 7 July, 4 Aug, 1 Sept, 29 Sept. '3 cut' plots cut: 9 June, 4 Aug, 29 Sept.

Butt Furlong (W): Methiocarb applied: 2 Oct, 1980; 6 Nov, 3 Dec, 8 Jan, 1981; 5 Feb, 5 Mar, 10 Apr, 14 May, 10 June, 9 July, 6 Aug, 3 Sept. Propyzamide applied: 10 Oct, 1980. Magnesian limestone applied: 24 Oct. Benomyl applied: 4 Nov, 2 Dec, 6 Jan, 1981; 5 Feb. PK applied: 4 Dec, 1980. NK applied: 5 Mar, 1981. Aldicarb applied to all C plots except LU; phorate applied to C plots of LU: 19 Mar. Weedkillers applied to RG plots: 5 May. NK, benomyl and phorate applied: 13 May, 10 June, 8 July, 5 Aug, 2 Sept. '6 cut' plots cut: 13 May, 10 June, 8 July, 5 Aug, 2 Sept, 1 Oct. '3 cut' plots cut: 10 June, 5 Aug, 1 Oct.

NOTE: Assessments of pests and diseases were made during the season. Nitrogen percentages of crop produce were measured.

81/R/CS/200 PASTURES (R)

1ST CUTTING OCCASION (12/5/81) DRY MATTER TONNES/HECTARE

***** TABLES OF MEANS *****

IRRIGATN TREATMNT	NONE	FULL	MEAN
RG6N0---	0.05	0.05	0.05
RG6N1DE-	0.25	0.16	0.20
RG6N2DE-	0.90	0.76	0.83
RG6N3DE-	0.74	0.77	0.76
RG6N4DE-	1.15	1.58	1.37
RG6N5DE-	2.04	2.09	2.07
RG6N6DE-	1.61	2.18	1.90
GB6N0---	0.51	0.33	0.42
GB6N1DE-	0.93	0.49	0.71
GB6N2DE-	0.98	1.09	1.04
GB6N3DE-	1.19	1.28	1.23
GB6N4DE-	1.30	1.13	1.22
GS6N0---	0.28	0.57	0.43
GS6N1DE-	0.63	1.00	0.82
GS6N2DE-	0.92	1.26	1.09
GS6N3DE-	1.17	1.51	1.34
GS6N4DE-	1.61	2.20	1.90
MEAN	0.96	1.09	1.02

1ST CUTTING OCCASION MEAN DM% 16.4

* USE STANDARD ERRORS ON FOLLOWING PAGES ONLY TO COMPARE TREATMNT LEVELS
 GB3N0---,GB3N1SP-,GB3N1SS-,GB3N2SS-,RG3N2DE-,RG3N2DEC,
 CL3N0---,CL3N2DE-,CL3N0--C,CL3N2DEC,LU3N0---,LU3N0--C
 AND WITHIN THE SAME LEVEL OF IRRIGATN

81/R/CS/200 PASTURES (R)
2ND CUTTING OCCASION (9/6/81) DRY MATTER TONNES/HECTARE
***** TABLES OF MEANS *****

IRRIGATN TREATMNT	NONE	FULL	MEAN
RG6N0---	0.58	0.61	0.60
RG6N1DE-	1.37	0.93	1.15
RG6N2DE-	2.46	2.66	2.56
RG6N3DE-	4.12	3.54	3.83
RG6N4DE-	3.64	3.79	3.71
RG6N5DE-	3.81	3.16	3.48
RG6N6DE-	4.65	3.81	4.23
GB6N0---	2.84	2.60	2.72
GB6N1DE-	3.39	2.65	3.02
GB6N2DE-	3.83	3.29	3.56
GB6N3DE-	3.78	3.13	3.45
GB6N4DE-	3.22	4.18	3.70
GS6N0---	2.36	2.51	2.44
GS6N1DE-	2.76	2.56	2.66
GS6N2DE-	2.84	3.44	3.14
GS6N3DE-	2.78	3.22	3.00
GS6N4DE-	4.31	3.14	3.73
GB3N0---	3.53	1.45	2.49
GB3N1DE-	3.68	2.89	3.29
GB3N2DE-	3.91	2.91	3.41
GB3N3DE-	3.32	3.02	3.17
GB3N4DE-	4.03	3.56	3.79
GB3N0--C	4.69	4.70	4.70
GB3N1DEC	5.26	3.81	4.54
GB3N2DEC	4.41	5.02	4.72
GB3N3DEC	4.77	4.47	4.62
GB3N4DEC	5.81	3.46	4.63
GB3N1SP-	5.72	3.13	4.43
GB3N1SS-	4.35	2.58	3.46
GB3N2SS-	4.28	3.78	4.03
RG3N2DE-	4.07	3.71	3.89
RG3N2DEC	4.69	3.69	4.19
CL3N0---	1.52	1.29	1.41
CL3N2DE-	1.74	1.68	1.71
CL3N0--C	3.03	2.59	2.81
CL3N2DEC	3.37	2.56	2.96
LU3N0---	4.37	2.50	3.44
LU3N0--C	5.07	4.34	4.70
MEAN	3.68	2.99	3.34

***** STANDARD ERRORS OF DIFFERENCES OF MEANS *****

TABLE	TREATMNT*	IRRIGATN* TREATMNT
-----	-----	-----
SED	0.343	0.485

***** STRATUM STANDARD ERRORS AND COEFFICIENTS OF VARIATION *****

STRATUM	DF	SE	CV%
WP.SP	24	0.485	14.5

2ND CUTTING OCCASION MEAN DM% 15.4

81/R/CS/200 PASTURES (R)

3RD CUTTING OCCASION (7/7/81) DRY MATTER TONNES/HECTARE

***** TABLES OF MEANS *****

IRRIGATN TREATMNT	NONE	FULL	MEAN
RG6N0---	0.32	0.29	0.30
RG6N1DE-	0.70	0.66	0.68
RG6N2DE-	1.39	1.15	1.27
RG6N3DE-	1.16	1.51	1.34
RG6N4DE-	1.41	1.76	1.59
RG6N5DE-	0.93	1.59	1.26
RG6N6DE-	0.25	1.32	0.78
GB6N0---	1.01	1.77	1.39
GB6N1DE-	1.10	1.35	1.22
GB6N2DE-	1.04	1.25	1.15
GB6N3DE-	0.90	1.34	1.12
GB6N4DE-	1.29	0.98	1.13
GS6N0---	1.10	1.27	1.18
GS6N1DE-	1.23	1.02	1.13
GS6N2DE-	1.07	1.27	1.17
GS6N3DE-	1.40	1.14	1.27
GS6N4DE-	0.37	1.32	0.85
MEAN	0.98	1.23	1.11

3RD CUTTING OCCASION MEAN DM% 19.9

81/R/CS/200 PASTURES (R)
4TH CUTTING OCCASION (4/8/81) DRY MATTER TONNES/HECTARE
***** TABLES OF MEANS *****

IRRIGATN TREATMNT	NONE	FULL	MEAN
RG6N0---	0.40	0.45	0.43
RG6N1DE-	0.77	0.78	0.78
RG6N2DE-	1.36	1.40	1.38
RG6N3DE-	2.05	1.95	2.00
RG6N4DE-	2.11	3.07	2.59
RG6N5DE-	1.77	3.77	2.77
RG6N6DE-	1.46	3.25	2.35
GB6N0---	1.42	2.15	1.78
GB6N1DE-	1.43	2.42	1.93
GB6N2DE-	1.73	2.60	2.17
GB6N3DE-	1.78	2.46	2.12
GB6N4DE-	2.11	3.38	2.74
GS6N0---	1.38	2.26	1.82
GS6N1DE-	1.45	2.36	1.91
GS6N2DE-	1.59	2.72	2.15
GS6N3DE-	1.73	2.82	2.27
GS6N4DE-	1.66	3.09	2.37
GB3N0---	2.83	3.43	3.13
GB3N1DE-	3.09	2.94	3.02
GB3N2DE-	3.04	2.67	2.86
GB3N3DE-	3.61	3.29	3.45
GB3N4DE-	3.88	3.47	3.68
GB3N0--C	3.34	3.93	3.64
GB3N1DEC	3.57	3.13	3.35
GB3N2DEC	3.72	3.85	3.79
GB3N3DEC	4.06	4.15	4.11
GB3N4DEC	3.64	4.93	4.28
GB3N1SP-	2.62	3.47	3.04
GB3N1SS-	2.69	2.93	2.81
GB3N2SS-	2.45	3.01	2.73
RG3N2DE-	3.00	3.52	3.26
RG3N2DEC	3.21	4.52	3.86
CL3N0---	2.28	2.38	2.33
CL3N2DE-	2.70	2.88	2.79
CL3N0--C	2.72	4.05	3.38
CL3N2DEC	3.05	3.46	3.26
LU3N0---	5.30	4.32	4.81
LU3N0--C	4.87	4.40	4.63
MEAN	2.67	3.16	2.92

***** STANDARD ERRORS OF DIFFERENCES OF MEANS *****

TABLE	TREATMNT*	IRRIGATN* TREATMNT

SED	0.355	0.502

***** STRATUM STANDARD ERRORS AND COEFFICIENTS OF VARIATION *****

STRATUM	DF	SE	CV%
WP.SP	24	0.502	17.2

4TH CUTTING OCCASION MEAN DM% 16.4

81/R/CS/200 PASTURES (R)

5TH CUTTING OCCASION (1/9/81) DRY MATTER TONNES/HECTARE

***** TABLES OF MEANS *****

IRRIGATN TREATMNT	NONE	FULL	MEAN
RG6N0---	0.25	0.61	0.43
RG6N1DE-	0.56	0.69	0.62
RG6N2DE-	1.19	1.15	1.17
RG6N3DE-	1.68	1.22	1.45
RG6N4DE-	2.22	2.06	2.14
RG6N5DE-	1.99	2.17	2.08
RG6N6DE-	2.16	2.22	2.19
GB6N0---	1.65	1.73	1.69
GB6N1DE-	1.65	1.71	1.68
GB6N2DE-	1.95	1.69	1.82
GB6N3DE-	2.00	1.90	1.95
GB6N4DE-	2.42	1.68	2.05
GS6N0---	1.60	1.59	1.59
GS6N1DE-	1.37	1.60	1.48
GS6N2DE-	1.15	1.69	1.42
GS6N3DE-	1.71	1.70	1.70
GS6N4DE-	2.30	1.91	2.11
MEAN	1.64	1.61	1.62

5TH CUTTING OCCASION MEAN DM% 17.9

81/R/CS/200 PASTURES (R)
6TH CUTTING OCCASION (29/9/81) DRY MATTER TONNES/HECTARE
***** TABLES OF MEANS *****

IRRIGATN TREATMNT	NONE	FULL	MEAN
RG6N0---	0.26	0.20	0.23
RG6N1DE-	0.19	0.38	0.28
RG6N2DE-	0.60	0.79	0.69
RG6N3DE-	0.77	1.27	1.02
RG6N4DE-	0.91	1.31	1.11
RG6N5DE-	0.68	1.72	1.20
RG6N6DE-	1.02	1.27	1.15
GB6N0---	0.59	1.00	0.79
GB6N1DE-	0.63	1.09	0.86
GB6N2DE-	0.64	1.27	0.95
GB6N3DE-	0.70	1.19	0.94
GB6N4DE-	0.77	1.28	1.02
GS6N0---	0.87	0.87	0.87
GS6N1DE-	0.75	0.96	0.86
GS6N2DE-	0.60	1.22	0.91
GS6N3DE-	0.51	1.32	0.91
GS6N4DE-	0.53	1.45	0.99
GB3N0---	1.96	1.71	1.84
GB3N1DE-	2.38	1.61	2.00
GB3N2DE-	2.05	1.58	1.82
GB3N3DE-	2.64	1.91	2.27
GB3N4DE-	2.60	2.38	2.49
GB3N0--C	2.28	2.43	2.35
GB3N1DEC	2.29	2.19	2.24
GB3N2DEC	2.53	2.13	2.33
GB3N3DEC	2.37	2.47	2.42
GB3N4DEC	2.65	2.24	2.45
GB3N1SP-	2.04	1.90	1.97
GB3N1SS-	2.01	1.76	1.89
GB3N2SS-	2.16	1.88	2.02
RG3N2DE-	1.88	2.66	2.27
RG3N2DEC	1.62	2.75	2.19
CL3N0---	1.31	1.54	1.43
CL3N2DE-	1.48	1.75	1.62
CL3N0--C	1.92	2.51	2.22
CL3N2DEC	2.24	2.23	2.23
LU3N0---	3.23	3.05	3.14
LU3N0--C	3.58	3.35	3.46
MEAN	1.67	1.83	1.75

***** STANDARD ERRORS OF DIFFERENCES OF MEANS *****

TABLE	TREATMNT*	IRRIGATN* TREATMNT
SED	0.199	0.281

***** STRATUM STANDARD ERRORS AND COEFFICIENTS OF VARIATION *****

STRATUM	DF	SE	CV%
WP.SP	24	0.281	16.0

6TH CUTTING OCCASION MEAN DM% 13.8

81/R/CS/200 PASTURES (R)
TOTAL OF 6 CUTTING OCCASIONS DRY MATTER TONNES/HECTARE
***** TABLES OF MEANS *****

IRRIGATN TREATMNT	NONE	FULL	MEAN
RG6N0---	1.87	2.20	2.04
RG6N1DE-	3.84	3.60	3.72
RG6N2DE-	7.88	7.91	7.89
RG6N3DE-	10.53	10.25	10.39
RG6N4DE-	11.45	13.57	12.51
RG6N5DE-	11.22	14.51	12.86
RG6N6DE-	11.15	14.05	12.60
GB6N0---	8.02	9.58	8.80
GB6N1DE-	9.12	9.70	9.41
GB6N2DE-	10.17	11.20	10.68
GB6N3DE-	10.35	11.28	10.82
GB6N4DE-	11.11	12.63	11.87
GS6N0---	7.58	9.08	8.33
GS6N1DE-	8.19	9.51	8.85
GS6N2DE-	8.17	11.60	9.88
GS6N3DE-	9.30	11.71	10.50
GS6N4DE-	10.78	13.12	11.95
GB3N0---	8.31	6.59	7.45
GB3N1DE-	9.16	7.45	8.30
GB3N2DE-	9.01	7.16	8.08
GB3N3DE-	9.57	8.22	8.90
GB3N4DE-	10.51	9.41	9.96
GB3N0--C	10.32	11.06	10.69
GB3N1DEC	11.12	9.13	10.12
GB3N2DEC	10.67	11.01	10.84
GB3N3DEC	11.21	11.09	11.15
GB3N4DEC	12.10	10.62	11.36
GB3N1SP-	10.38	8.50	9.44
GB3N1SS-	9.05	7.27	8.16
GB3N2SS-	8.88	8.67	8.78
RG3N2DE-	8.95	9.89	9.42
RG3N2DEC	9.52	10.96	10.24
CL3N0---	5.11	5.22	5.17
CL3N2DE-	5.92	6.30	6.11
CL3N0--C	7.66	9.15	8.41
CL3N2DEC	8.66	8.25	8.45
LU3N0---	12.91	9.86	11.39
LU3N0--C	13.51	12.08	12.80
MEAN	9.24	9.32	9.28

***** STANDARD ERRORS OF DIFFERENCES OF MEANS *****

TABLE	TREATMNT*	IRRIGATN* TREATMNT
-----	-----	-----
SED	0.581	0.821

***** STRATUM STANDARD ERRORS AND COEFFICIENTS OF VARIATION *****

STRATUM	DF	SE	CV%
WP.SP	24	0.821	8.8

TOTAL OF 6 CUTTING OCCASIONS MEAN DM% 15.6 SUB PLOT AREA HARVESTED 0.00038

81/W/CS/200 BUTT FURLONG (W)

1ST CUTTING OCCASION (13/5/81) DRY MATTER TONNES/HECTARE

***** TABLES OF MEANS *****

IRRIGATN TREATMNT	NONE	FULL	MEAN
RG6N0---	0.07	0.08	0.07
RG6N1DE-	0.21	0.57	0.39
RG6N2DE-	0.80	0.82	0.81
RG6N3DE-	1.19	2.16	1.68
RG6N4DE-	2.10	2.31	2.20
RG6N5DE-	2.11	2.27	2.19
RG6N6DE-	2.75	2.68	2.72
GB6N0---	2.47	1.83	2.15
GB6N1DE-	2.13	2.27	2.20
GB6N2DE-	2.17	2.16	2.17
GB6N3DE-	2.84	2.09	2.47
GB6N4DE-	3.12	2.67	2.90
GS6N0---	1.89	2.54	2.21
GS6N1DE-	1.52	2.19	1.86
GS6N2DE-	1.26	1.52	1.39
GS6N3DE-	1.32	1.58	1.45
GS6N4DE-	1.98	2.45	2.21
MEAN	1.76	1.89	1.83

1ST CUTTING OCCASION MEAN DM% 19.2

81/W/CS/200 BUTT FURLONG (W)
2ND CUTTING OCCASION (10/6/81) DRY MATTER TONNES/HECTARE
***** TABLES OF MEANS *****

IRRIGATN TREATMNT	NONE	FULL	MEAN
RG6N0---	0.44	0.54	0.49
RG6N1DE-	1.09	1.43	1.26
RG6N2DE-	2.28	2.15	2.21
RG6N3DE-	2.60	3.17	2.88
RG6N4DE-	3.29	3.45	3.37
RG6N5DE-	3.15	4.28	3.71
RG6N6DE-	3.55	3.30	3.42
GB6N0---	2.51	3.22	2.86
GB6N1DE-	2.76	2.42	2.59
GB6N2DE-	2.71	2.30	2.50
GB6N3DE-	2.87	3.18	3.03
GB6N4DE-	2.45	2.91	2.68
GS6N0---	2.11	2.61	2.36
GS6N1DE-	2.66	2.78	2.72
GS6N2DE-	2.69	3.34	3.02
GS6N3DE-	2.47	3.14	2.81
GS6N4DE-	3.54	3.40	3.47
GB3N0---	3.59	3.59	3.59
GB3N1DE-	4.13	3.06	3.59
GB3N2DE-	4.32	3.91	4.12
GB3N3DE-	4.52	3.30	3.91
GB3N4DE-	2.95	3.47	3.21
GB3N0--C	3.40	4.60	4.00
GB3N1DEC	4.72	3.90	4.31
GB3N2DEC	4.03	4.10	4.07
GB3N3DEC	4.81	4.91	4.86
GB3N4DEC	5.29	6.77	6.03
GB3N1SP-	4.31	3.75	4.03
GB3N1SS-	3.80	3.24	3.52
GB3N2SS-	3.89	3.45	3.67
RG3N2DE-	4.57	5.78	5.18
RG3N2DEC	5.03	6.47	5.75
CL3N0---	3.63	3.26	3.45
CL3N2DE-	3.14	3.23	3.18
CL3N0--C	3.51	3.31	3.41
CL3N2DEC	3.98	3.76	3.87
LU3N0---	5.42	4.97	5.20
LU3N0--C	5.05	4.93	4.99
MEAN	3.62	3.70	3.66

***** STANDARD ERRORS OF DIFFERENCES OF MEANS *****

TABLE	TREATMNT*	IRRIGATN* TREATMNT
SED	0.419	0.593

***** STRATUM STANDARD ERRORS AND COEFFICIENTS OF VARIATION *****

STRATUM	DF	SE	CV%
WP.SP	24	0.593	16.2

2ND CUTTING OCCASION MEAN DM% 16.9

81/W/CS/200 BUTT FURLONG (W)

3RD CUTTING OCCASION (8/7/81) DRY MATTER TONNES/HECTARE

***** TABLES OF MEANS *****

IRRIGATN TREATMNT	NONE	FULL	MEAN
RG6N0---	0.17	0.24	0.21
RG6N1DE-	0.48	0.31	0.40
RG6N2DE-	0.62	0.86	0.74
RG6N3DE-	1.12	2.16	1.64
RG6N4DE-	1.19	2.39	1.79
RG6N5DE-	0.95	2.82	1.88
RG6N6DE-	1.28	2.48	1.88
GB6N0---	0.56	1.88	1.22
GB6N1DE-	0.95	2.16	1.55
GB6N2DE-	0.96	1.85	1.40
GB6N3DE-	1.06	1.89	1.47
GB6N4DE-	1.36	2.10	1.73
GS6N0---	0.51	1.57	1.04
GS6N1DE-	0.92	1.72	1.32
GS6N2DE-	0.77	1.78	1.28
GS6N3DE-	0.73	1.62	1.17
GS6N4DE-	1.02	2.70	1.86
MEAN	0.86	1.79	1.33

3RD CUTTING OCCASION MEAN DM% 24.7

81/W/CS/200 BUTT FURLONG (W)
4TH CUTTING OCCASION (5/8/81) DRY MATTER TONNES/HECTARE
***** TABLES OF MEANS *****

IRRIGATN TREATMNT	NONE	FULL	MEAN
RG6N0---	0.11	0.00	0.05
RG6N1DE-	0.15	0.08	0.11
RG6N2DE-	0.43	0.49	0.46
RG6N3DE-	0.59	1.38	0.99
RG6N4DE-	0.37	2.35	1.36
RG6N5DE-	0.51	2.73	1.62
RG6N6DE-	0.76	3.00	1.88
GB6N0---	1.00	2.33	1.66
GB6N1DE-	1.35	1.89	1.62
GB6N2DE-	1.19	2.13	1.66
GB6N3DE-	1.12	2.16	1.64
GB6N4DE-	1.12	2.31	1.71
GS6N0---	0.84	1.99	1.42
GS6N1DE-	0.73	1.78	1.25
GS6N2DE-	0.45	1.62	1.03
GS6N3DE-	0.52	1.64	1.08
GS6N4DE-	0.59	2.37	1.48
GB3N0---	2.06	2.55	2.30
GB3N1DE-	2.06	2.95	2.51
GB3N2DE-	1.98	3.14	2.56
GB3N3DE-	2.25	2.18	2.22
GB3N4DE-	2.46	2.31	2.39
GB3N0--C	2.34	3.84	3.09
GB3N1DEC	2.69	2.67	2.68
GB3N2DEC	3.19	3.06	3.13
GB3N3DEC	2.47	3.43	2.95
GB3N4DEC	3.05	4.08	3.56
GB3N1SP-	1.71	2.58	2.15
GB3N1SS-	2.09	2.13	2.11
GB3N2SS-	1.98	2.39	2.19
RG3N2DE-	0.95	2.29	1.62
RG3N2DEC	1.77	3.92	2.84
CL3N0---	2.05	2.40	2.23
CL3N2DE-	2.29	2.18	2.24
CL3N0--C	2.83	2.98	2.91
CL3N2DEC	2.57	3.20	2.88
LU3N0---	4.90	4.87	4.88
LU3N0--C	5.35	5.36	5.35
MEAN	1.91	2.63	2.27

***** STANDARD ERRORS OF DIFFERENCES OF MEANS *****

TABLE	TREATMNT*	IRRIGATN* TREATMNT

SED	0.219	0.309

***** STRATUM STANDARD ERRORS AND COEFFICIENTS OF VARIATION *****

STRATUM	DF	SE	CV%
WP.SP	24	0.309	13.6

4TH CUTTING OCCASION MEAN DM% 18.5

81/W/CS/200 BUTT FURLONG (W)

5TH CUTTING OCCASION (2/9/81) DRY MATTER TONNES/HECTARE

***** TABLES OF MEANS *****

IRRIGATN TREATMNT	NONE	FULL	MEAN
RG6N0---	0.06	0.08	0.07
RG6N1DE-	0.35	0.37	0.36
RG6N2DE-	0.55	0.78	0.66
RG6N3DE-	1.28	1.10	1.19
RG6N4DE-	1.54	1.38	1.46
RG6N5DE-	1.77	1.54	1.65
RG6N6DE-	2.06	1.36	1.71
GB6N0---	1.47	1.48	1.47
GB6N1DE-	1.67	1.20	1.43
GB6N2DE-	1.56	1.00	1.28
GB6N3DE-	1.67	1.31	1.49
GB6N4DE-	1.95	1.47	1.71
GS6N0---	1.44	1.55	1.50
GS6N1DE-	1.57	1.14	1.36
GS6N2DE-	0.86	1.20	1.03
GS6N3DE-	1.34	1.17	1.25
GS6N4DE-	1.24	1.18	1.21
MEAN	1.32	1.14	1.23

5TH CUTTING OCCASION MEAN DM% 18.7

81/W/CS/200 BUTT FURLONG (W)
6TH CUTTING OCCASION (1/10/81) DRY MATTER TONNES/HECTARE
***** TABLES OF MEANS *****

IRRIGATN TREATMNT	NONE	FULL	MEAN
RG6N0---	0.05	0.10	0.07
RG6N1DE-	0.30	0.33	0.32
RG6N2DE-	0.57	0.52	0.54
RG6N3DE-	0.95	1.51	1.23
RG6N4DE-	0.96	1.70	1.33
RG6N5DE-	1.15	1.83	1.49
RG6N6DE-	0.96	1.60	1.28
GB6N0---	0.97	0.96	0.97
GB6N1DE-	0.68	0.77	0.72
GB6N2DE-	0.96	0.96	0.96
GB6N3DE-	1.06	0.81	0.93
GB6N4DE-	0.80	1.17	0.99
GS6N0---	0.87	1.05	0.96
GS6N1DE-	0.82	1.13	0.97
GS6N2DE-	0.93	1.26	1.09
GS6N3DE-	1.14	1.51	1.33
GS6N4DE-	1.16	1.37	1.26
GB3N0---	1.27	1.82	1.55
GB3N1DE-	1.41	1.58	1.50
GB3N2DE-	1.73	2.03	1.88
GB3N3DE-	1.79	1.53	1.66
GB3N4DE-	1.90	1.44	1.67
GB3N0--C	2.47	2.35	2.41
GB3N1DEC	2.04	2.17	2.11
GB3N2DEC	2.19	2.50	2.35
GB3N3DEC	1.99	2.57	2.28
GB3N4DEC	2.16	3.66	2.91
GB3N1SP-	1.51	1.25	1.38
GB3N1SS-	1.33	1.20	1.26
GB3N2SS-	1.83	1.57	1.70
RG3N2DE-	1.60	2.23	1.92
RG3N2DEC	2.04	2.91	2.47
CL3N0---	1.43	1.44	1.44
CL3N2DE-	1.31	1.59	1.45
CL3N0--C	2.03	2.29	2.16
CL3N2DEC	1.92	2.21	2.07
LU3N0---	3.01	3.10	3.05
LU3N0--C	3.06	2.95	3.00
MEAN	1.53	1.75	1.64

***** STANDARD ERRORS OF DIFFERENCES OF MEANS *****

TABLE	TREATMNT*	IRRIGATN* TREATMNT
SED	0.197	0.279

***** STRATUM STANDARD ERRORS AND COEFFICIENTS OF VARIATION *****

STRATUM	DF	SE	CV%
WP.SP	24	0.279	17.0

6TH CUTTING OCCASION MEAN DM% 13.2

81/W/CS/200 BUTT FURLONG (W)
 TOTAL OF 6 CUTTING OCCASIONS DRY MATTER TONNES/HECTARE
 ***** TABLES OF MEANS *****

IRRIGATN TREATMNT	NONE	FULL	MEAN
RG6N0---	0.90	1.03	0.96
RG6N1DE-	2.58	3.10	2.84
RG6N2DE-	5.25	5.61	5.43
RG6N3DE-	7.73	11.48	9.60
RG6N4DE-	9.44	13.58	11.51
RG6N5DE-	9.63	15.47	12.55
RG6N6DE-	11.36	14.42	12.89
GB6N0---	8.97	11.71	10.34
GB6N1DE-	9.54	10.69	10.11
GB6N2DE-	9.55	10.39	9.97
GB6N3DE-	10.61	11.44	11.03
GB6N4DE-	10.80	12.63	11.72
GS6N0---	7.66	11.31	9.49
GS6N1DE-	8.22	10.74	9.48
GS6N2DE-	6.96	10.73	8.84
GS6N3DE-	7.53	10.67	9.10
GS6N4DE-	9.52	13.47	11.50
GB3N0---	6.92	7.96	7.44
GB3N1DE-	7.61	7.59	7.60
GB3N2DE-	8.03	9.09	8.56
GB3N3DE-	8.55	7.02	7.79
GB3N4DE-	7.32	7.22	7.27
GB3N0--C	8.21	10.79	9.50
GB3N1DEC	9.44	8.74	9.09
GB3N2DEC	9.41	9.67	9.54
GB3N3DEC	9.28	10.91	10.09
GB3N4DEC	10.50	14.51	12.50
GB3N1SP-	7.53	7.58	7.56
GB3N1SS-	7.22	6.56	6.89
GB3N2SS-	7.70	7.41	7.56
RG3N2DE-	7.11	10.30	8.71
RG3N2DEC	8.83	13.30	11.07
CL3N0---	7.11	7.11	7.11
CL3N2DE-	6.75	7.00	6.87
CL3N0--C	8.37	8.58	8.48
CL3N2DEC	8.47	9.17	8.82
LU3N0---	13.33	12.94	13.13
LU3N0--C	13.45	13.24	13.35
MEAN	8.40	9.73	9.07

***** STANDARD ERRORS OF DIFFERENCES OF MEANS *****

TABLE	TREATMNT*	IRRIGATN* TREATMNT
SED	0.583	0.824

***** STRATUM STANDARD ERRORS AND COEFFICIENTS OF VARIATION *****

STRATUM	DF	SE	CV%
WP.SP	24	0.824	9.1

TOTAL OF 6 CUTTING OCCASIONS MEAN DM% 16.8 SUB PLOT AREA HARVESTED 0.00038