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Sheep production systems on Mediterranean annual pastures.

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**SHEEP PRODUCTION SYSTEMS ON MEDITERRANEAN ANNUAL PASTURES -
84V2/4616EX**

The background, aims and measurements have been detailed in previous annual reports (SEE 1987 Experimental Summary).

1988 Results

As in the previous 4 years of this trial the 1988 pasture measurements have confirmed the hypothesis that "increasing stocking rates result in a reduction in pasture growth rates, and in turn a reduction in total annual pasture production.

Heavily grazed pastures are also characterised by a low grass and high subclover component relative to a poorly grazed sward.

The trial has now been terminated. All the 1984-1988 results are being processed for publication. (See attached tables for the 1988 data).

SHEEP PRODUCTION SYSTEMS ON MEDITERRANEAN ANNUAL PASTURES>

84V2/4616EX - VASSE RESEARCH STATION

1988 PASTURE ASSESSMENT

	PASTURE ON OFFER (kg/ha) *	TOTAL PASTURE PRODUCTION (kg/ha)	PASTURE GROWTH RATE * (kg/ha/day)	VISUAL PASTURE COMPOSITION *		
				CLOVER %	GRASS %	OTHERS %
<i>STOCKING RATE</i>						
LOW	2310	6990	36	15	38	48
MEDIUM	2100	6240	31	25	25	50
HIGH	1880	5880	30	37	17	46
<i>SHEEP TYPE</i>						
CROSSBRED EWE	2240	6640	34	19	36	45
MERINO EWE	2160	6390	32	19	40	43
MERINO WETHER	2000	6010	30	33	18	50
MERINO WEANER	1980	6450	32	32	13	55
<i>OVERALL MEAN</i>	2100	6370	32	26	27	48

* AVERAGED OVER WHOLE OF GROWING SEASON

SHEEP PRODUCTION SYSTEMS ON MEDITERRANEAN ANNUAL PASTURES

1988 PASTURE ON OFFER (kg/ha) 84V2/4616EX

SAMPLING DATE			30/05/88	21/06/88	12/07/88	01/08/88	22/08/88	12/09/88	03/10/88	24/10/88	14/11/88	MEAN
Plot No's	Stocking Rate	Sheep Type										
16, 24	Low	XB.E	750	710	1240	1510	2200	2390	2760	5130	5280	2440
5, 22	Low	MO.E	730	600	1310	1240	1780	2010	2390	4790	5150	2220
18, 19	Low	MO.W	750	550	990	1170	1750	2080	2570	4920	4860	2180
1, 12	Low	MO.WN	790	760	1410	1480	2120	2350	2690	4990	4880	2390
6, 11	Medium	XB.E	740	660	1280	1350	1920	2130	2510	5080	5190	2320
14, 23	Medium	MO.E	770	750	1010	1470	2080	2240	2600	4730	4910	2280
3, 21	Medium	MO.W	710	560	1100	1170	1550	1880	2430	4860	4630	2100
4, 13	Medium	MO.WN	750	410	810	1070	1260	1470	2030	4030	3590	1710
2, 8	High	XB.E	770	600	1070	1130	1430	1660	1980	4420	4650	1970
17, 20	High	MO.E	740	590	1030	1210	1600	1830	2080	4410	4410	1990
9, 15	High	MO.W	760	400	1200	1000	1340	1470	1730	3940	3600	1720
7, 10	High	MO.WN	760	380	720	1010	1380	1740	1990	4410	4130	1840
		\bar{X}	750	580	1100	1230	1700	1940	2310	4640	4610	2100
STOCKING RATE												
Low			760	660	1240	1350	1960	2210	2600	4960	5040	2310
Medium			740	600	1050	1270	1700	1930	2390	4680	4580	2100
High			760	490	1010	1090	1440	1680	1950	4300	4200	1880
SHEEP TYPE												
Crossbred Ewe	(XB.E)		750	660	1200	1330	1850	2060	2420	4880	5040	2240
Merino Ewe	(MO.E)		750	650	1120	1310	1820	2030	2360	4640	4820	2160
Merino Wether	(MO.W)		740	500	1100	1110	1550	1810	2240	4570	4360	2000
Merino Weaner	(MO.WN)		770	520	980	1190	1590	1850	2240	4480	4200	1980

SHEEP PRODUCTION SYSTEMS ON MEDITERRANEAN ANNUAL PASTURES

1988 PASTURE GROWTH RATES (kg/ha/day) 84V2/4616EX

SAMPLING DATE			30/05/88	21/06/88	12/07/88	01/08/88	22/08/88	12/09/88	03/10/88	24/10/88	14/11/88	MEAN
Plot No's	Stocking Rate	Sheep Type										
16, 24	Low	XB.E	41	-16	45	10	40	16	28	133	24	36
5, 22	Low	MO.E	39	-27	35	16	29	25	16	127	-8	28
18, 19	Low	MO.W	42	-23	35	17	25	29	30	138	22	35
1, 12	Low	MO.WN	43	-16	50	15	48	30	37	148	35	43
6, 11	Medium	XB.E	42	-15	41	18	34	18	22	129	27	35
14, 23	Medium	MO.E	42	-16	41	13	37	16	25	126	34	35
3, 21	Medium	MO.W	42	-20	36	22	21	18	23	121	17	31
4, 13	Medium	MO.WN	41	-24	30	27	10	21	16	103	-7	24
2, 8	High	XB.E	42	-21	33	18	17	22	19	120	20	30
17, 20	High	MO.E	43	-20	38	19	25	28	24	126	19	34
9, 15	High	MO.W	41	-25	31	24	12	25	11	105	-2	25
7, 10	High	MO.WN	41	-24	29	30	16	34	18	123	6	30
		X	42	-21	37	19	26	24	22	125	16	32
STOCKING RATE												
Low			41	-21	41	15	36	25	28	137	18	36
Medium			42	-19	37	20	26	18	22	120	18	31
High			42	-23	33	23	18	27	18	119	11	30
SHEEP TYPE												
Crossbred Ewe	(XB.E)		42	-17	40	15	30	19	23	127	24	34
Merino Ewe	(MO.E)		41	-21	38	16	30	23	22	126	15	32
Merino Wether	(MO.W)		42	-23	34	21	19	24	21	121	12	30
Merino Weaner	(MO.WN)		42	-21	36	24	25	28	24	125	11	32

SHEEP PRODUCTION SYSTEMS ON MEDITERRANEAN ANNUAL PASTURES

1988 CUMULATIVE PASTURE GROWTH (kg/ha) 84V2/4616EX

<i>SAMPLING DATE</i>			30/05/88	21/06/88	12/07/88	01/08/88	22/08/88	12/09/88	03/10/88	24/10/88	14/11/88
Plot No's	Stocking Rate	Sheep Type									
16, 24	Low	XB.E	1190	840	1790	1990	2820	3160	3740	6540	7040
5, 22	Low	MO.E	1130	540	1290	1600	2210	2740	3070	5730	5560
18, 19	Low	MO.W	1200	710	1440	1770	2290	2910	3530	6420	6890
1, 12	Low	MO.WN	1240	890	1930	2240	3230	3860	4640	7750	8480
6, 11	Medium	XB.E	1230	890	1760	2110	2830	3200	3660	6370	6930
14, 23	Medium	MO.E	1230	880	1740	1990	2770	3110	3640	6290	7000
3, 21	Medium	MO.W	1220	770	1520	1970	2420	2790	3280	5810	6180
4, 13	Medium	MO.WN	1200	670	1310	1850	2060	2500	2830	5000	4860
2, 8	High	XB.E	1210	740	1430	1790	2150	2610	3000	5510	5940
17, 20	High	MO.E	1240	800	1600	1970	2510	3090	3590	6220	6620
9, 15	High	MO.W	1190	630	1280	1770	2030	2560	2800	5000	4970
7, 10	High	MO.WN	1180	650	1250	1840	2180	2900	3280	5870	6000
		\bar{X}	1210	750	1530	1910	2460	2950	3420	6040	6370
<i>STOCKING RATE</i>											
Low			1190	750	1610	1900	2640	3170	3750	6610	6990
Medium			1220	800	1580	1980	2520	2900	3350	5870	6240
High			1210	710	1390	1840	2220	2790	3170	5650	5880
<i>SHEEP TYPE</i>											
Crossbred Ewe	(XB.E)		1210	820	1660	1960	2600	2990	3470	6140	6640
Merino Ewe	(MO.E)		1200	740	1540	1850	2500	2980	3430	6080	6390
Merino Wether	(MO.W)		1200	700	1410	1840	2250	2750	3200	5740	6010
Merino Weaner	(MO.WN)		1210	740	1500	1980	2490	3090	3580	6210	6450

SHEEP PRODUCTION SYSTEMS ON MEDITERRANEAN ANNUAL PASTURES

1988 VISUAL PASTURE COMPOSITION (% SUBCLOVER) 84V2/4616EX

<i>SAMPLING DATE</i>			30/05/88	12/07/88	22/08/88	03/10/88	14/11/88	MEAN
Plot No's	Stocking Rate	Sheep Type						
16, 24	Low	XB.E	13	16	17	16	4	13
5, 22	Low	MO.E	5	4	10	10	8	7
18, 19	Low	MO.W	14	18	18	24	9	17
1, 12	Low	MO.WN	22	25	30	26	8	22
6, 11	Medium	XB.E	12	11	13	20	9	13
14, 23	Medium	MO.E	14	19	12	20	10	15
3, 21	Medium	MO.W	27	39	49	47	25	37
4, 13	Medium	MO.WN	22	36	33	49	39	36
2, 8	High	XB.E	23	32	40	47	18	32
17, 20	High	MO.E	21	40	40	41	23	33
9, 15	High	MO.W	29	54	56	47	39	45
7, 10	High	MO.WN	31	47	41	43	27	38
		X	19	28	30	33	18	26
<i>STOCKING RATE</i>								
Low			14	16	19	19	7	15
Medium			19	26	27	34	21	25
High			26	43	44	45	27	37
<i>SHEEP TYPE</i>								
Crossbred Ewe	(XB.E)		16	20	23	28	10	19
Merino Ewe	(MO.E)		13	21	19	22	14	19
Merino Wether	(MO.W)		23	37	41	39	24	33
Merino Weaner	(MO.WN)		25	36	35	39	25	32

SHEEP PRODUCTION SYSTEMS ON MEDITERRANEAN ANNUAL PASTURES

1988 VISUAL PASTURE COMPOSITION (% GRASS) 84V2/4616EX

SAMPLING DATE			30/05/88	12/07/88	22/08/88	03/10/88	14/11/88	MEAN
Plot No's	Stocking Rate	Sheep Type						
16, 24	Low	XB.E	33	43	41	39	60	43
5, 22	Low	MO.E	51	64	51	42	67	55
18, 19	Low	MO.W	23	28	34	22	46	31
1, 12	Low	MO.WN	18	26	19	25	31	24
6, 11	Medium	XB.E	36	41	32	34	47	38
14, 23	Medium	MO.E	32	32	33	34	52	37
3, 21	Medium	MO.W	11	17	15	17	24	17
4, 13	Medium	MO.WN	10	6	6	8	14	9
2, 8	High	XB.E	19	33	27	28	33	28
17, 20	High	MO.E	27	27	25	26	33	28
9, 15	High	MO.W	6	6	5	6	7	6
7, 10	High	MO.WN	7	7	8	7	8	7
		X	23	28	25	24	35	27
STOCKING RATE								
Low			31	40	36	32	51	38
Medium			22	24	22	23	34	25
High			15	18	16	17	20	17
SHEEP TYPE								
Crossbred Ewe	(XB.E)		29	39	33	34	47	36
Merino Ewe	(MO.E)		37	41	36	34	51	40
Merino Wether	(MO.W)		13	17	18	15	26	18
Merino Weaner	(MO.WN)		12	13	11	13	18	13

SHEEP PRODUCTION SYSTEMS ON MEDITERRANEAN ANNUAL PASTURES

1988 VISUAL PASTURE COMPOSITION (% OTHERS) 84V2/4616EX

<i>SAMPLING DATE</i>			30/05/88	12/07/88	22/08/88	03/10/88	14/11/88	MEAN
Plot No's	Stocking Rate	Sheep Type						
16, 24	Low	XB.E	55	42	43	46	37	45
5, 22	Low	MO.E	45	33	40	48	31	39
18, 19	Low	MO.W	64	54	48	55	45	53
1, 12	Low	MO.WN	61	50	51	50	62	55
6, 11	Medium	XB.E	52	49	55	47	45	50
14, 23	Medium	MO.E	55	50	56	47	38	49
3, 21	Medium	MO.W	63	45	36	37	52	47
4, 13	Medium	MO.WN	69	58	61	44	48	56
2, 8	High	XB.E	59	35	33	26	49	40
17, 20	High	MO.E	53	34	36	33	44	40
9, 15	High	MO.W	65	41	39	48	55	50
7, 10	High	MO.WN	62	47	52	51	61	55
		\bar{X}	59	45	46	44	47	48
<i>STOCKING RATE</i>								
Low			56	45	46	50	44	48
Medium			60	51	52	44	46	50
High			60	39	40	40	52	46
<i>SHEEP TYPE</i>								
Crossbred Ewe	(XB.E)		55	42	44	40	44	45
Merino Ewe	(MO.E)		51	39	44	43	38	43
Merino Wether	(MO.W)		64	47	41	47	51	50
Merino Weaner	(MO.WN)		64	52	55	48	57	55