

MISCELLANEOUS PUBLICATION 271

1957-58

Improvement of Sheep Through the Selection of Performance-Tested and Progeny-Tested Breeding Animals

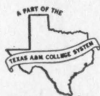
APRIL 16, 1958

RANCH EXPERIMENT STATION
SONORA, TEXAS



TEXAS AGRICULTURAL EXPERIMENT STATION

R. D. Lewis, Director, College Station, Texas



in cooperation with

TEXAS SHEEP BREEDERS

and the

U. S. DEPARTMENT OF AGRICULTURE

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IMPROVEMENT OF SHEEP THROUGH THE SELECTION OF PERFORMANCE-TESTED AND PROGENY-TESTED BREEDING ANIMALS, 1957-58

This report presents the results of the tenth year's work in ram testing at the Sonora Station. The shorn rams were weighed into the test officially on October 2, 1957. After weighing at 28-day intervals, the rams were weighed off the test at the conclusion of the sixth period on March 19, 1958.

Initially this test included 133 rams. Ninety-two were Rambouillets, 12 were Debouillets and Debouillet x Rambouillet, 25 were commercial rams, principally of Rambouillet breeding, and 4 were Columbias. Eighty-eight head were fed in 22 progeny groups in the small pens; the remaining 45 head were fed together in a nearby large lot. Eight rams died, 7 from urinary calculi and 1 from pneumonia, and 1 was removed from the test. Two other rams suffered from urinary calculi but survived.

This year's test was the first in this series to involve self-feeding of pellets as a principle of management. In the past, the ration has been hand-fed according to appetite and consisted of equal parts of oats and hay. The first ration used in this test was abandoned in mid-January because of the high incidence of urinary calculi. This ration was:

45% cottonseed hulls
15% dehydrated alfalfa meal (17% protein)
28% ground milo
12% cottonseed meal

At a meeting of breeders, College and Station personnel on January 3, 1958, it was decided to change the ration in an attempt to stop the trouble. The feed was altered as follows and fed to the rams beginning on January 7:

25 lb. dehydrated alfalfa leaf meal
200 lb. salt
20 gm. aureomycin
1800 lb. ground pellets (as above)

This was fed until some of the supplies on hand were used up and the remainder of the pellets ordered and fed consisted of:

30% cottonseed hulls
30% dehydrated alfalfa meal
23% ground milo
12% cottonseed meal
5% salt
20 gm. aureomycin per ton

No new cases of urinary calculi were found in the rams on the altered feed.

Initially the rams were sheared on October 1, 1957. They were sheared again on March 20, 1958. Staple length measurements, grease fleece weights and clean fleece weights were adjusted and reported on a 365-day basis.

The Texas Agricultural Experiment Station Wool and Mohair Laboratory scoured the entire fleeces to report clean yield. Moisture content was standardized to a 12 percent level. Fiber diameter determinations were made under the supervision of T. D. Watkins, Department of Animal Husbandry.

The committee system was used to establish body conformation, belly cover and face cover scores. The following values are assigned:

(Continued on Page 12)

Ram Test No.	Flock Number	Age in Months 4/1/58	Initial Weight 10/2/57	Final Weight 3/19/58	Total Gain	Average Daily Gain
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FALL DROPPED LAMBS FED IN PROGENY GROUPS

Sire: Lehfeldt P-161 Owner—Clyde Thate, Coleman

1	1014	16	137	246	109	.65
2	1142	16	127	207	80	.48
3	1157	16	128	229	101	.60
4	1164	16	129	223	94	.56
Average			130	226	96	.57

Sire: USDA 4271 Owner—Texas A & M College, College Station

6	A425	16	137	229	92	.55
7	A427	16	138	252	114	.68
8	A433	16	99	188	89	.53
Average			125	223	98	.58

Sire: Pat Rose 1795 Owner—Edwin S. Mayer, Jr., Barnhart

9	13	15	94	198	104	.62
10	17	15	92	173	81	.48
11	29	15	82	162	80	.48
12	37	16	100	204	104	.62
Average			92	184	92	.55

Sire: Pat Rose 1767 Owner—Edwin S. Mayer, Jr., Barnhart

13	19	15	94	189	95	.57
14	27	15	97	176	79	.47
15	45	15	88	182	94	.56
16	47	16	93	183	90	.54
Average			93	182	89	.53

Sire: L. R. 4662 Owner—Jack Preston, Utopia

17	135	16	125	212	87	.52
18	139	16	132	210	78	.46
19	142	16	133	215	82	.49
20	158	16	128	205	77	.46
Average			130	211	81	.48

Average for Fall Dropped Rambouillets 113 204 91 .54

SPRING DROPPED LAMBS FED IN PROGENY GROUPS

Sire: 5069 Owners—Leo and Rod Richardson, Iraan

21	3305	14	110	224	114	.68
22	3313	14	123	228	105	.62
23	3314	14	76	163	87	.52
Average			103	205	102	.61

Sire: R 965 Owners—Leo and Rod Richardson, Iraan

25	7181	14	111	203	92	.55
26	3554	12	101	191	90	.54
27	6566	14	117	235	118	.70
Average			110	210	100	.60

(1) Adjusted for Initial Body Weight

FLEECE RECORD — 365 DAYS

Wool Weight	Clean Fleece Weight	Adjusted Clean Fleece Weight (1)	Staple Length (Inches)	Fiber Diameter (Microns)	Spin- ning Count	Con- forma- tion	Belly Wool	Skin Folds	Face Cover
8.9	8.0	6.9	3.48	23.2	62	1.2	2.8	60	2.5
8.5	7.5	6.7	3.42	22.9	62	1.8	3.0	42	2.0
1.3	11.5	10.6	3.46	24.7	60	1.4	3.0	51	2.5
8.7	8.0	7.1	3.53	21.0	70	1.6	3.2	21	3.0
8.6	8.75	7.82	3.47			1.5	3.0	44	2.5
8.1	9.5	8.4	3.72	22.1	64	1.2	2.5	26	2.5
8.1	9.8	8.7	4.00	22.6	62	2.5	4.0	24	2.2
8.5	9.2	9.1	4.21	22.7	62	2.2	2.2	19	2.8
8.6	9.50	8.73	3.98			2.0	2.9	23	2.5
7.4	9.5	9.5	4.32	19.3	80	2.5	2.0	54	3.5
8.3	7.5	7.6	3.81	21.9	64	2.5	1.5	50	2.5
7.8	9.8	10.1	4.47	23.3	62	2.3	1.8	21	3.5
8.9	8.5	8.4	3.81	21.7	64	3.2	2.2	130	2.5
8.8	8.82	8.90	4.10			2.6	1.9	64	3.0
8.6	8.8	8.8	3.68	23.9	62	2.3	2.2	40	3.5
7.6	8.1	8.0	3.61	23.4	62	2.2	1.1	40	2.8
8.9	10.4	10.6	3.78	24.7	60	2.5	1.0	71	3.5
8.4	9.9	10.0	3.61	24.9	60	2.4	2.0	79	2.5
8.1	9.30	9.35	3.67			2.4	1.6	58	3.1
8.7	9.2	8.4	3.78	23.6	62	2.2	1.2	25	3.0
8.4	10.8	9.8	3.78	22.1	64	2.0	1.0	55	3.2
8.1	8.7	7.7	3.57	22.5	64	1.2	1.8	28	2.5
8.9	10.7	9.8	4.21	24.3	60	1.7	1.0	18	2.5
8.0	9.85	8.92	3.84			1.8	1.2	32	2.8
8.5	9.23	8.75	3.80			2.0	2.1	45	2.8
8.7	10.4	10.0	5.22	23.4	62	1.2	3.5	13	2.5
8.9	9.8	9.1	4.69	22.0	64	1.3	1.5	13	1.8
8.8	9.1	9.6	4.64	21.3	64	2.5	1.2	13	2.5
8.1	9.77	9.57	4.85			1.7	2.1	13	2.3
8.4	10.0	9.6	5.05	24.9	60	1.7	3.5	15	3.5
8.0	10.9	10.7	4.54	20.5	70	1.6	1.0	20	3.0
8.6	13.4	12.8	4.56	23.7	62	1.8	1.0	83	3.5
8.3	11.43	11.03	4.72			1.7	1.8	39	3.3

Ram Test No.	Flock Number	Age in Months 4/1/58	Initial Weight 10/2/57	Final Weight 3/19/58	Total Gain	Average Daily Gain
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SPRING DROPPED RAMBOUILLET LAMBS FED IN PROGENY GROUP (CONTINUED)

Sire: RRR 2104 Owner—Roger Landers, Menard

29	F102	15	98	187	89	.53
30	F103	15	102	204	102	.61
31	J105	13	87	184	97	.58
32	R625	14	99	194	95	.57
Average			96	192	96	.57

Sire: HCN R512 Owner—Wittenburg Company, Rocksprings

33	33	14	99	199	100	.60
34	35	11	66	164	98	.58
35	37	11	94	200	106	.63
Average			86	188	102	.61

Sire: R517 Owner—H. C. Noelke, Jr., Estate, Sheffield

37	1343	14	103	225	122	.73
38	1385	14	97	176	79	.47
40	1565	12	77	164	87	.52
Average			92	188	96	.57

Sire: R518 Owner—H. C. Noelke, Jr., Estate, Sheffield

41	1386	14	101	203	102	.61
42	1392	14	92	194	102	.61
43	1442	13	101	202	101	.60
44	1581	11	105	202	97	.58
Average			100	200	100	.60

Sire: PR 1935 Owners—Boyd Brothers, Rankin

53	28	14	87	198	111	.66
54	30	13	84	167	83	.49
55	32	13	71	194	123	.73
56	33	12	76	183	107	.64
Average			80	186	106	.63

Sire: Harris 600 Owner—Prentice Harris, Bronco

57	1452	11	78	170	92	.55
58	1499	11	78	206	128	.76
Average			78	188	110	.65

Sire: Harris 700 Owner—Prentice Harris, Bronco

61	1443	11	89	203	114	.68
62	1479	11	72	173	101	.60
63	1498	11	100	212	112	.67
64	1500	11	98	192	94	.56
Average			90	195	105	.62

(1) Adjusted for Initial Body Weight

FLEECE RECORD — 365 DAYS

Sheep No.	Clean Fleece Weight	Adjusted Clean Fleece Weight (1)	Staple Length (Inches)	Fiber Diameter (Microns)	Spin- ning Count	Con- forma- tion	Belly Wool	Skin Folds	Face Cover
19.4	10.1	10.0	4.88	23.2	62	1.8	1.0	17	1.8
18.9	10.1	9.9	4.69	21.3	64	1.5	1.0	18	1.2
20.0	9.1	9.3	4.21	24.9	60	1.9	2.0	18	2.2
18.5	7.5	7.4	3.81	22.7	62	1.9	2.5	34	2.0
19.2	9.20	9.15	4.40			1.8	1.6	22	1.8
17.2	8.6	8.5	3.61	22.4	64	1.7	3.0	38	2.2
16.1	8.6	9.4	4.49	22.0	64	2.5	2.8	21	2.2
16.1	8.3	8.3	3.96	22.4	64	2.2	2.5	21	2.5
18.5	8.50	8.73	4.02			2.1	2.8	27	2.3
19.6	9.6	9.4	4.19	23.4	62	2.0	2.5	18	2.2
15.3	8.8	8.7	4.02	23.6	62	2.4	1.8	27	3.5
19.8	8.5	9.0	3.96	22.7	62	2.6	2.5	63	2.0
18.2	8.97	9.03	4.06			2.3	2.3	36	2.6
19.1	7.9	7.7	3.61	22.3	64	2.3	3.0	14	3.2
18.5	8.7	8.8	3.87	23.4	62	3.2	2.0	90	2.8
19.8	8.9	8.7	4.32	23.5	62	1.8	3.0	11	2.8
22.1	9.7	9.4	3.96	23.2	62	2.6	2.2	83	2.8
19.9	8.80	8.65	3.94			2.5	2.6	50	2.9
22.1	7.8	8.0	3.31	25.4	60	2.1	2.2	47	3.0
19.4	9.8	10.1	3.78	25.2	60	2.6	2.5	25	3.0
21.1	8.9	9.5	3.74	23.0	62	2.0	2.5	48	2.2
22.6	7.5	8.0	3.63	24.2	60	2.4	2.5	39	3.0
21.3	8.50	8.90	3.62			2.3	2.4	40	2.8
20.6	11.3	11.7	5.12	23.7	62	1.6	2.0	33	1.8
17.4	9.2	9.6	4.95	22.8	62	1.3	1.0	9	1.0
19.0	10.25	10.65	5.04			1.4	1.5	21	1.4
18.9	9.7	9.9	4.88	21.4	64s	1.4	3.0	10	2.0
19.6	9.7	10.3	4.90	23.6	62s	2.3	1.5	29	3.2
22.6	10.1	10.0	4.67	23.3	62s	1.6	1.8	30	3.5
18.7	9.5	9.4	4.69	21.1	64s	1.4	3.0	8	2.8
20.0	9.75	9.90	4.78			1.7	2.3	19	2.9

Ram Test No.	Flock Number	Age in Months 4/1/58	Initial Weight 10/2/57	Final Weight 3/19/58	Total Gain	Average Daily Gain	Feed 100 lbs Gain
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SPRING DROPPED LAMBS FED IN PROGENY GROUPS — (Continued)

Sire: HCN R805 Owner—Substation 14, Sonora

65	5499	13	95	187	92	.55	
66	5508	13	69	182	113	.67	
67	5526	13	96	190	94	.56	
68	5543	13	86	182	96	.57	
Average			86	185	99	.59	

Sire: TS 5174 Owner—Substation 14, Sonora

69	5485	13	81	201	120	.71	
71	5513	13	88	199	111	.66	
Average			84	200	116	.69	

Sire: TS 5174 Owner—Substation 14, Sonora

73	5453	13	80	172	92	.55	
74	5465	13	98	216	118	.70	
75	5479	13	83	195	112	.67	
76	5519	13	88	193	105	.62	
Average			87	194	107	.64	

Sire: TS 5137 Owner—Substation 14, Sonora

77	5492	13	88	186	98	.58	
78	5531	13	70	178	108	.64	
79	5538	13	86	206	120	.71	
80	5551	13	81	195	114	.68	
Average			81	191	110	.65	

Sire: JW-5152 Owner—Ed Guy Branch, Rankin, Texas

85	1026	13	104	217	113	.67	
86	1027	13	72	166	94	.56	
87	1028	13	85	179	94	.56	
88	1029	13	108	193	85	.51	
Average			92	189	97	.58	
Average for Spring-Dropped Rambouillets			91	193	102	.61	
Averages—All Rambouillets			95	196	101	.60	

Debouillet and Debouillet x Rambouillets

Sire: J132 Owner—Phillip Robbins, Fort Stockton

45	115	11	91	183	92	.55	
46	125	11	89	182	93	.55	
47	128	11	79	142	63	.38	
48	145	11	83	183	100	.60	
Average			85	172	87	.52	

Sire: TS 5157 Owner—Phillip Robbins, Fort Stockton

49	119	11	75	182	107	.64	
50	139	11	93	190	97	.58	
51	141	11	81	184	103	.61	
52	158	11	79	178	99	.59	
Average			82	184	102	.61	

(1) Adjusted for Initial Body Weight

FLEECE RECORD — 365 DAYS

Clean Fleece Weight	Adjusted Clean Fleece Weight (1)	Staple Length (Inches)	Fiber Diameter (Microns)	Spinning Count	Conformation	Belly Wool	Skin Folds	Face Cover
9.6	9.6	4.94	20.6	70s	1.9	3.2	19	1.2
8.6	9.3	5.01	22.5	64s	2.1	3.2	35	3.0
9.0	9.0	4.69	21.3	64s	2.0	3.8	11	2.8
7.5	7.7	3.93	22.2	64s	2.6	2.8	15	1.2
8.68	8.90	4.64			2.2	3.2	20	2.0
10.3	10.7	4.41	23.7	62s	2.0	1.0	52	3.0
11.0	11.2	4.73	21.3	64s	1.2	2.5	23	1.0
10.65	10.95	4.57			1.6	1.8	38	2.0
8.3	8.7	4.19	21.5	64s	2.6	2.2	89	2.2
8.6	8.5	3.93	20.6	70s	1.9	3.8	38	1.5
9.4	9.7	4.41	20.6	70s	2.0	1.0	60	1.0
10.1	10.3	4.21	20.2	70s	1.8	2.2	47	1.2
9.10	9.30	4.18			2.1	2.3	58	1.5
8.9	9.1	4.41	21.4	64s	2.3	3.0	60	2.0
8.4	9.0	4.19	23.2	62s	2.6	2.5	82	2.2
9.1	9.3	4.15	23.5	62s	2.5	1.8	16	1.8
8.8	9.2	3.78	22.4	64s	1.8	3.0	37	1.5
8.80	9.15	4.13			2.3	2.6	49	1.9
8.0	7.8	3.59	20.8	70s	1.7	2.2	53	2.8
8.3	8.9	4.49	25.0	60s	2.6	2.2	9	3.0
8.7	9.0	4.24	23.0	62s	2.7	2.3	44	2.8
10.7	10.4	4.30	24.4	60s	1.8	1.5	59	3.0
8.92	9.02	4.16			2.2	2.3	41	2.9
9.27	9.38	4.32			2.0	2.3	35	2.4
9.27	9.26	4.20			2.1	2.2	36.4	2.6
7.2	7.3	4.52	20.2	70	2.4	4.0	14	2.2
6.2*		4.19	19.7	70	2.5	4.0	5	2.5
6.7*		4.62	20.1	70	3.4	4.0	11	3.0
7.6	7.9	4.21	21.8	64	1.9	3.9	31	2.2
7.40	7.60	4.38			2.6	4.0	15	2.5
7.4	7.9	4.47	20.3	70	2.2	3.5	31	1.0
11.1	11.2	4.75	23.6	62	2.6	2.0	55	3.2
7.2	7.6	4.08	22.7	62	2.7	3.0	50	2.8
7.7*		4.47	22.2	64	2.5	3.0	38	1.0
8.57	8.90	4.44			2.5	2.9	44	2.0

*Partially Shedded Records Not Included

Ram Test No.	Flock Number	Age in Months 4/1/58	Initial Weight 10/2/57	Final Weight 3/19/58	Total Gain	Average Daily Gain	Feed 100 Gain
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SPRING DROPPED COLUMBIA LAMBS FED IN PROGENY GROUP

Sire: H 1870 Owner—L. A. Nordan, Boerne

81	7	15	138	231	93	.55
82	24	14	140	255	115	.68
83	31	14	81	174	93	.55
84	33	14	108	206	98	.58
Average			117	217	100	.60

GROUP FED IN LARGE PEN

Sires: (Test 89 by 0398; others by Davis 1354) Owner—W. L. (Tom) Davis, San

89	13	12	76	181	105	.62
90	1781	11	87	180	93	.55
91	1785	11	77	176	99	.59
92	1801	11	72	150	78	.46
Average			78	172	94	.56

Sires Unknown Owners—Mayer & Mertz, San Angelo

93	1	13	100	200	100	.60
94	7	13	104	222	118	.70
95	9	13	97	190	93	.55
96	10	13	99	215	116	.69
97	11	13	97	196	99	.59
98	12	13	97	187	90	.54
99	14	13	92	202	110	.65
100	16	13	97	181	84	.50
101	17	13	94	173	79	.47
102	19	13	89	197	108	.64
Average			97	197	100	.60

Sires: Unknown Owner—Peterson Ranch Company, Bracketville

103	20	14	96	192	96	.57
104	21	14	104	201	97	.58
105	22	14	107	199	92	.55
106	23	14	95	230	135	.80
107	24	14	99	229	130	.77
108	25	14	94	193	99	.59
109	26	14	76	170	94	.56
110	27	14	99	189	90	.54
111	28	14	88	174	86	.51
112	29	14	85	187	102	.61
Average			94	196	102	.61

(1) Adjusted for Initial Body Weight

ECE RECORD — 365 DAYS

Clean Fleece Weight	Adjusted Clean Fleece Weight (1)	Staple Length (Inches)	Fiber Diameter (Microns)	Spinning Count	Con-formation	Belly Wool	Skin Folds	Face Cover
13.2	12.1	5.72	30.8	50s	1.4	3.0	8	1.0
10.6	9.4	4.52	29.9	50s	1.1	3.0	6	1.0
6.3	6.7	5.07	26.3	58s	2.7	4.0	5	1.0
10.1	9.8	5.14	28.4	56s	1.4	3.0	27	1.0
10.05	9.50	5.11			1.6	3.2	12	1.0

9.8	10.3	4.15	20.4	70	3.0	2.2	36	1.0
8.2	8.4	4.45	22.8	62	2.4	2.0	18	2.8
10.3	10.8	4.30	19.9	70	3.0	3.0	37	3.0
7.4	8.0	4.02	22.5	64	2.4	1.5	24	3.0
8.92	9.38	4.23			2.7	2.2	29	2.4

8.8	8.7	4.19	25.2	60	2.9	2.2	10	2.8
7.5	7.3	4.30	22.5	64	2.5	4.0	10	3.0
8.0	7.9	3.81	23.2	62	2.4	3.2	13	3.0
7.8	7.7	4.60	24.7	60	1.4	3.8	9	2.8
9.1	9.0	4.30	22.5	64	2.0	4.0	15	2.5
9.0	8.9	3.91	23.1	62	2.9	3.5	7	3.2
7.8	7.9	4.47	24.5	60	2.0	3.5	10	3.5
7.1	7.0	3.83	22.0	64	2.2	3.5	6	3.8
7.3	7.3	4.13	23.1	62	3.0	2.5	7	2.8
8.3	8.5	4.56	22.2	64	2.2	2.5	2	2.8
8.07	8.02	4.21			2.4	3.3	9	3.0

8.5	8.5	4.30	23.3	62	2.5	3.0	16	2.8
6.8	6.6	4.11	21.7	64	1.9	3.5	9	2.2
8.9	8.6	3.89	22.9	62	2.2	3.8	10	3.5
6.1*		3.70*	21.9	64	1.2	3.8	11	2.2
9.1	9.0	4.43	23.3	62	1.8	3.0	24	3.0
8.2	8.2	4.11	20.7	70	2.6	3.0	11	2.8
8.0	8.5	4.69	21.9	64	2.7	3.5	3	3.5
7.5	7.4	3.42	23.5	62	2.0	4.0	14	2.2
6.1	6.3	3.72	25.3	60	2.2	3.0	13	3.0
7.9	8.2	3.72	25.5	60	2.2	3.0	11	3.0
7.89	7.92	4.04			2.1	3.4	12	2.8

* Partially Shedded Records Not Included

Ram Test No.	Flock Number	Age in Months 4/1/58	Initial Weight 10/2/57	Final Weight 3/19/58	Total Gain	Average Daily Gain
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GROUP FED IN LARGE PEN — (Continued)

Sires: 600 (113) and 700 Owner—Prentice Harris, Bronco

113	1540	11	83	200	117	.70
114	1574	11	76	189	113	.67
Average			79	194	115	.68

Sires: PR1601, TS5175, HCNR523, TS5137, TS5137 Owner—Substation 14, Sonora

115	5442	13	70	168	98	.58
116	5460	13	78	198	120	.71
117	5488	13	93	192	99	.59
118	5516	13	69	193	124	.74
119	5554	12	78	194	116	.69
Average			78	189	111	.66

Sires: J132, J12, J12, TS4776 Owner—Phillip Robbins, Fort Stockton

120	118	11	74	168	94	.56
121	142	11	84	156	72	.43
122	147	11	77	178	101	.60
123	157	11	91	186	95	.57
Average			82	172	90	.54

Sire: R-965 Owners—Leo and Rod Richardson, Iraan

124	3249	12	106	208	102	.61
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Sires: Unknown Owner—Pat Rose, Jr., Del Rio

125	30	12	81	154	73	.43
126	31	12	84	185	101	.60
127	32	12	85	170	85	.51
128	33	12	100	210	110	.65
129	34	12	86	181	95	.57
Average			87	180	93	.55

Sires: TS5235, Hodges 275, Hodges 275, TS5235 Owner—Jess Barton, Sonora

130	12	13	89	184	95	.57
131	24	13	119	228	109	.65
132	25	13	115	212	97	.58
133	28	14	115	238	123	.73
Average			110	216	106	.63

Average for Open-Lot Group 91 191 100 .60

(1) Adjusted for Initial Body Weight

RECORD — 365 DAYS

Clean Fleece Weight	Adjusted Clean Fleece Weight (1)	Staple Length (Inches)	Fiber Diameter (Microns)	Spinning Count	Conformation	Belly Wool	Skin Folds	Face Cover
8.9	9.2	4.94	21.1	64	2.6	3.5	11	3.0
9.6	10.1	4.67	22.8	62	2.8	1.8	51	3.2
9.25	9.65	4.80			2.7	2.6	31	3.1
7.3	7.9	3.87	23.2	62	3.0	1.5	40	2.5
7.1	7.5	3.74	24.5	60	2.5	2.0	33	2.2
13.0	13.1	4.21	24.4	60	3.1	1.5	78	3.0
9.1	9.8	4.62	21.7	64	2.4	2.0	24	3.0
7.8	8.2	4.64	21.9	64	2.4	1.0	21	3.0
8.86	9.30	4.22			2.7	1.6	39	2.7
8.2	8.7	4.34	23.0	62	2.5	3.5	29	3.0
7.5	7.8	3.83	21.5	64	3.1	4.0	11	3.0
8.0	8.5	4.41	22.2	64	2.4	3.0	16	1.0
6.8	6.9	4.24	20.4	70	2.8	3.5	17	3.0
7.62	7.98	4.20			2.7	3.5	18	2.5
13.7	13.4	5.59	24.7	60s	2.4	1.0	16	3.5
9.1	9.5	4.45	20.6	70s	3.1	1.0	7	3.0
8.4	8.7	4.45	21.3	64s	2.2	2.2	16	2.8
8.9	9.2	5.14	24.2	60s	2.9	2.2	12	2.2
9.5	9.4	4.26	25.5	60s	2.2	1.0	11	3.0
11.2	11.4	5.07	25.0	60s	2.9	1.0	21	1.8
9.42	9.64	4.68			2.7	1.5	13	2.6
8.4*		4.28	24.1	60s	2.3	2.8	20	3.5
10.0	9.4	3.93	24.3	60s	1.7	3.5	21	3.5
9.1	8.6	3.55	24.0	62s	1.7	3.0	44	3.5
8.9	8.4	3.93	25.5	60s	1.4	2.0	36	3.0
9.33	8.80	3.92			1.8	2.8	30	3.4
8.59	8.71	4.26			2.4	2.7	19	2.8

* Shedded Records Not Included

Body conformation: Excellent (1); Good (2); Medium (3); Poor (4).

Belly wool: Good (1); Medium (2); Fair (3); Poor (4).

Face covering: Open (1); Medium (2); Covered (3); Wool blind (4).

Skinfold values are based on the number and size of folds. The higher the score, the greater the skin fold development.

As in the past, values for feed conversion and adjusted clean fleece weight have been adjusted for differences in size of the animals at the beginning of the test. These adjusted clean fleece figures should be used to compare animals whose weights differ considerably.

AVERAGE VALUES FOR RAMBOUILLET

Year	Daily gain, lb.	Grease wool, lb.	Clean wool, lb.	Staple length, in.	Face covering score	Skin fold count
1948-49	.37	13.8	6.6	3.36	2.7	33.8
1949-50	.45	16.7	7.8	3.57	2.8	38.9
1950-51	.49	18.0	8.1	3.34	2.7	44.8
1951-52	.46	17.7	8.2	3.47	3.3	25.1
1952-53	.48	18.4	8.6	3.56	3.0	40.7
1953-54	.51	19.5	9.3	3.80	2.9	31.3
1954-55	.49	17.8	8.7	4.07	2.8	32.2
1955-56	.48	19.9	9.2	3.87	2.7	26.6
1956-57	.50	18.8	9.1	4.02	2.8	25.7
1957-58	.60	19.2	9.3	4.20	2.6	36.4

A great difference will be noted in feed efficiency in this test in comparison with previous tests. The variation is due to the difference in the rations used. The amount of feed required per 100 pounds of gain for the Rambouillets last year was 811 pounds; this year it amounted to 1288 pounds. This variation reflects a need to utilize more economical rations in future tests, as costs of feed per head are somewhat higher this year.

One new column has been added this year—fiber diameter in microns. Spinning counts are determined from the actual measurement of the fibers as expressed in microns. The ranges for the various grades as commonly accepted are:

80s	—	18.1-19.5	60s	—	24.1-25.5
70s	—	19.6-21.0	58s	—	25.6-27.0
64s	—	21.1-22.5	56s	—	27.1-29.0
62s	—	22.6-24.0	50s	—	29.1-31.5

There appears to be a continuation of the trend toward coarser fleeces. This occurs as breeders select progressively for extreme length of staple and pounds of clean wool. Production of pounds of clean wool is realized in three ways: increased fiber length, increased fiber diameter and increased fiber density. Undoubtedly nutrition affects these things, but to what extent in these tests is not now known. Perhaps there is an optimum type ram fleece which does not require the extremes in pounds of clean wool.

Skinfold counts appear to be somewhat higher in this test. Management of the rams this year very likely has caused rapid skin development as a reflection of the high feed intake and rapid gains. Past studies on the Sonora and Barnhart stations have shown that rams with fold counts as high as 35 will produce very acceptable lambs.