

Observations on the Gestation Period of Ronderib-Afrikaner Sheep.

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Very little is known of the origin of the Ronderib-Afrikaner sheep, but it is generally believed to have been developed by selection from the indigenous sheep of the fat-tailed type which were in the possession of the Hottentots when the Cape was first occupied in 1652.

The Ronderib-Afrikaner is a very hardy breed and is to be found mostly in the dry North Western districts of the Cape Province. As the breed must of necessity continue to play an important part in the farming system of the more arid regions in the Union of South Africa, it was decided to obtain data on the age of sexual maturity, oestrus, the oestrous cycle, and the gestation period of these sheep. This publication deals only with the gestation period. The other aspects of the study on their sex-physiology will appear later.

METHOD.

The sheep were tested once daily, in the early morning, for oestrus by using vasectomised "teasers". Those showing oestrus were placed in a shed until later when they were allowed normal copulation, using selected rams, or they were artificially inseminated.

"Hand service" was commenced on 30/4/36 and discontinued on 21/6/36. Some of the Ronderib-Afrikaner ewes were mated to a ram of the same breed, others to a Welsh Mountain ram. The latter ram experienced great difficulty in mating with those ewes with exceptionally large tails and drooping rumps, and artificial insemination was resorted to in these cases.

The exact hour of service was not recorded, but all services were done between 8 a.m. and 10 a.m., consequently 9 a.m. is taken as the average time of service in the following calculations.

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During gestation the ewes were run under ordinary Karroo-veld conditions, but were brought into a kraal for close observation one week prior to the date on which they were expected to lamb. Confinement at this period was necessary so that the ewes could be kept under constant observation during the day. Inspections during the night were made at three hourly intervals. The gestation periods are, therefore, calculated to the nearest three hours.

The following distribution of the gestation periods, taken to the nearest 24 hours, gives a summarised reflection of the results obtained:—

TABLE I.

Gestation period in days...	146	147	148	149	150	151	152	153	154	155
Distribution of lambing....	3	6	3	11	5	4	4	4	—	1

In Table 2 complete details of 41 individual ewes, used for observation, are given.

DISCUSSION.

The gestation periods of 41 sheep showed a range of 145 days 12 hours to 155 days 9 hours, with a mode of 149 days, and a mean of 149·57 days. This duration of gestation is shorter than that recorded by Quinlan, Maré and Roux, 1932, for Merino sheep kept in a similar environment. These authors recorded the duration of the gestation periods of 99 Merino sheep. The range was from 146 to 156 days, and the mean 150·9 days.

REFERENCE.

- QUINLAN, J., MARE, G. S., AND ROUX, L. L. (1932). The Vitality of the Spermatozoon in the Genital Tract of the Merino ewe, with special reference to its Practical Application in Breeding. *18th Rept. Div. Vet. Serv. and Anim. Ind. U. of S.A.*

TABLE 2.

Ewe No.	Date Served.	By Ram.	Date Lambed.	Hour.	Lamb No.	Birth Wt. lb.	Gestation Period.	
							Days.	Hours.
RR 4.....	23/5/36	WM. 3.....	23/10/36	12.30 p.m.	WR. 87.....	6.8	135	3½
9.....	12/5/36	WM. 3.....	8/10/36	10.40 p.m.	76.....	7.3	149	11½
13.....	15/5/36	WM. 3 (U.S.)*.....	13/10/36	9.00 a.m.	—	7.0	151	0
14.....	17/6/36	WM. 3.....	16/11/36	8.55 p.m.	100.....	8.1	152	12
15.....	10/6/36	WM. 4.....	7/11/36	6.40 a.m.	98.....	6.8	149	22
16.....	19/6/36	WM. 4.....	18/11/36	5.30 p.m.	102.....	8.7	152	8½
17.....	7/6/36	WM. 1 (D.S.)†.....	2/11/36	6.00 p.m.	95.....	7.1	148	9
36.....	15/5/36	WM. 3.....	12/10/36	6.00 p.m.	79.....	7.1	156	9
38.....	6/6/36	WM. 4.....	3/11/36	3.30 p.m.	96.....	6.9	150	6½
40.....	25/5/36	WM. 3.....	25/10/36	9.00 a.m.	90.....	6.7	153	0
41.....	23/5/36	WM. 3.....	21/10/36	6.00 a.m.	84.....	6.8	150	21
44.....	18/5/36	WM. 3.....	14/10/36	11.5 a.m.	82.....	7.6	149	2
49.....	2/6/36	WM. 1 (D.S.)†.....	29/10/36	7.30 p.m.	92.....	6.6	149	10½
51.....	27/5/36	WM. 3.....	23/10/36	10.00 a.m.	86.....	7.0	149	1
54.....	16/5/36	WM. 3.....	12/10/36	6.00 p.m.	80.....	7.3	149	9
126.....	30/4/36	WM. 3.....	27/9/36	11.35 p.m.	64.....	7.2	150	14½
127.....	2/5/36	WM. 3 (U.S.)*.....	25/9/36	11.30 a.m.	61.....	6.5	146	2½
128.....	3/5/36	WM. 3 (U.S.)*.....	29/9/36	12.45 p.m.	68.....	5.6	149	3¼
130.....	11/5/36	WM. 3 (U.S.)*.....	6/10/36	7.45 a.m.	—	—	147	23
132.....	4/5/36	WM. 3.....	3/10/36	7.40 a.m.	72.....	7.2	151	23
133.....	2/5/36	WM. 3.....	28/9/36	3.00 a.m.	66.....	8.0	148	18
136.....	8/5/36	WM. 3.....	5/10/36	12 noon.	25.....	7.0	150	3

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TABLE 2 (continued).

Ewe No.	Date Served,	By Ram.	Date Lambed.	Hour.	Lamb No.	Birth Wt. lb.	Gestation Period.	
							Days.	Hours.
138.....	22/5/36	WM. 3.....	18/10/36	12 noon	83.....	7-4	149	3
139.....	18/5/36	WM. 3 (U.S.)*.....	12/10/36	3.00 a.m.	77.....	7-4	146	18
141.....	21/6/36	WM. 4.....	17/11/36	2.30 a.m.	101.....	7-6	148	17½
143.....	3/5/36	WM. 3.....	26/9/36	11.55 p.m.	63.....	7-0	146	15
145.....	2/5/36	WM. 3 (U.S.)*.....	26/9/36	6.50 a.m.	62.....	6-5	146	22
146.....	26/5/36	WM. 3 (U.S.)*.....	22/10/36	11.00 a.m.	85.....	7-2	149	2
147.....	3/5/36	WM. 3 (U.S.)*.....	27/9/36	11.35 p.m.	65.....	6-6	147	14½
148.....	29/5/36	WM. 3.....	23/10/36	7.00 p.m.	88.....	6-9	147	10
149.....	20/4/36	WM. 3.....	24/9/36	3.30 p.m.	59., } 60., }	5-0	147	6½
155.....	7/6/36	WM. 4.....	1/11/36	5.00 p.m.	94.....	6-6	147	8
160.....	30/4/36	WM. 3 (U.S.)*.....	28/9/36	11.55 p.m.	67.....	7-0	151	15
161.....	11/6/36	WM. 1 (D.S.)*.....	3/11/36	9.00 p.m.	97.....	7-2	145	12
162.....	5/6/36	WM. 1 (D.S.)*.....	1/11/36	5.00 a.m.	93.....	6-7	148	20
164.....	9/5/36	WM. 3.....	2/10/36	6.45 a.m.	71.....	6-8	145	22
25.....	8/5/36	RR. 65.....	10/10/36	6.00 p.m.	RR. 177.....	7-1	155	9
113.....	28/5/36	RR. 65.....	25/10/36	9.00 p.m.	RR. 179.....	6-8	150	12
117.....	30/4/36	RR. 65.....	29/9/36	10.40 a.m.	174., } 175., }	4-5	152	1½
118.....	7/5/36	RR. 65.....	6/10/36	11.25 p.m.	176.....	5-0	152	14½
123.....	19/5/36	RR. 65.....	16/10/36	12.10 p.m.	178.....	6-8	150	3

NOTE 1.—

* U.S. :—Indicates that semen was withdrawn from an ewe immediately after normal copulation, by means of a glass pipette, and injected in an undiluted condition with a pipette into the cranial extremity of the vagina of the ewe to be inseminated.

† D.S. :—Indicates that semen was taken from the artificial vagina of a dummy ewe, diluted 1 : 2, with G.P.S.-8, and injected into the cervix of the ewe to be inseminated by a suitable glass syringe and ebonite catheter, using a vaginal speculum to illuminate the genital passage.



Fig. 1.—Ronderib-Afrikaner Ram.



Fig. 2.—Ronderib-Afrikaner Ram.



Fig. 3.—Ronderib-Afrikaner Ram showing development of the tail.



Fig. 4.—Ronderib-Afrikaner Ewe.



Fig. 5.—Ronderib-Afrikaner Ewes with lambs.