

RESEARCHES INTO STERILITY OF COWS IN SOUTH AFRICA.

TABLE XIV—(continued).
The Dioestrous Periods, 1929-1941.

GROUP,	FIFTH PERIOD, 1934-35.			SIXTH PERIOD, 1935-36.		
	DIOESTROUS PERIODS,		PERCENTAGE OF CASES IN WHICH OESTRUS REURRED AFTER NORMAL INTERVAL OF 18-23 DAYS.	DIOESTROUS PERIODS,		PERCENTAGE OF CASES IN WHICH OESTRUS REURRED AFTER NORMAL INTERVAL OF 18-23 DAYS.
	RANGE,	MODE,		RANGE,	MODE,	
A.....	Days. 18-74	Days. 21	68.8	Days. 4-100	Days. 20	73.9
B.....	1-156	20	50.0	20-22	20	100.0
C.....	9-437	20	58.8	10-74	19	30.2
ALL GROUPS,...	1-437	—	59.2	4-100	—	68.0

GROUP,	SEVENTH PERIOD, 1936-37.			EIGHTH PERIOD, 1937-38.		
	DIOESTROUS PERIODS,		PERCENTAGE OF CASES IN WHICH OESTRUS REURRED AFTER NORMAL INTERVAL OF 18-23 DAYS.	DIOESTROUS PERIODS,		PERCENTAGE OF CASES IN WHICH OESTRUS REURRED AFTER NORMAL INTERVAL OF 18-23 DAYS.
	RANGE,	MODE,		RANGE,	MODE,	
A.....	Days. 6-44	Days. 20	40.0	Days. 19-79	Days. 22	53.9
B.....	13-155	21, 22	57.7	20-40	20	70.0
C.....	20-24	21	92.3	11-107	20	57.1
ALL GROUPS,...	6-155	—	63.3	11-107	—	59.5

TABLE XXXIV—(continued).
The Dioestrous Periods, 1929-1941.

Group.	NINTH PERIOD, 1938-39,			TENTH PERIOD, 1939-40		
	Dioestrous Periods.	Range.	Mode.	Dioestrous Periods.	Range.	Mode.
A.....	Days.	15- 62	21	Days.	17- 41	19
B.....		6-106	20		18-67	19
C.....		20-117	20, 22		2-49	20
ALL GROUPS....		6-117	—		2-67	—
 ELEVENTH PERIOD, 1940-41.						
Group.	Dioestrous Periods.			TWELFTH PERIOD, 1941-42.		
	Range.	Mode.	Days.	Range.	Mode.	Days.
A.....	Days.	6- 56	20	Days.	41	41
B.....		19- 86	a		—	—
C.....		22-244	a		41	41
ALL GROUPS....		6-244	—		42-4	41

1930-1931-1932.

1931-1932-1933.

Group and Cow No.	Date of Service.	Date of Calving.	Gestation Period.	Sex of Calf.	Birth-weight of Calf.	Ib.	Date of Service.	Date of Calving.	Gestation Period.
GROUP A.									
3591.....	27/1/30 5/5/31	Killed in extremis. 6/2/32	277	Female.	60-0	—	Died 11/2/32 $\left\{ \begin{array}{l} 13/4/32 \\ 18/9/32 \end{array} \right\}$	—	—
3592.....	18/10/30	21/7/31	277	Female.	60-0	—	—	—	281
3593.....	1/11/30	13/8/31	285	Male.	80-5	—	—	—	279
3594.....	24/12/30	25/9/31	275	Male.	75-5	—	25/11/31 $\left\{ \begin{array}{l} 30/11/31 \\ 5/2/32 \end{array} \right\}$	9/9/32	284
3595.....	28/10/30	3/8/31	280	Male.	75-0	—	19/12/31 $\left\{ \begin{array}{l} 16/9/32 \\ 24/6/32 \end{array} \right\}$	16/9/32	277
3596*.....	10/11/30	18/8/31	281	Female.	73-5	—	20/11/31 $\left\{ \begin{array}{l} 28/8/32 \\ 1/10/32 \end{array} \right\}$	4/4/33	272
3597.....	23/11/30	31/8/31	281	Female.	72-0	—	20/12/31 $\left\{ \begin{array}{l} 28/8/32 \\ 1/10/32 \end{array} \right\}$	28/8/32	284
3598.....	17/11/30	24/8/31	280	Female.	90-5	—	—	—	282
3599.....	3600.....	—	—	—	—	—	—	—	286
GROUP B.									
3601.....	9/4/31	11/1/32	277	Female.	66-0	17/4/32 $\left\{ \begin{array}{l} 29/8/32 \\ 8/6/33 \end{array} \right\}$	24/1/33 $\left\{ \begin{array}{l} 8/6/33 \\ 8/6/33 \end{array} \right\}$	282	282
3602.....	16/4/31	(Aborted 13/1/32 at 272 days).	—	—	—	—	—	—	284
3603*.....	—	3/2/32 7/1/32	281	Female.	51-0	9/4/32 $\left\{ \begin{array}{l} 17/4/32 \\ 5/4/32 \end{array} \right\}$	15/1/33 $\left\{ \begin{array}{l} 16/1/33 \\ 16/1/33 \end{array} \right\}$	281	281
3604.....	4/4/31	2/2/32	278	Female.	61-0	—	—	—	281
3605.....	21/4/31	13/1/32	287	Male.	86-0	15/4/32 $\left\{ \begin{array}{l} 13/4/32 \\ 28/4/32 \end{array} \right\}$	4/1/33 $\left\{ \begin{array}{l} 23/1/33 \\ 23/1/33 \end{array} \right\}$	264	286
3606.....	1/4/31	20/1/32	287	Female.	80-0	—	—	—	285
3607.....	16/4/31	—	279	Male.	70-0	—	1/2/33 $\left\{ \begin{array}{l} 3/4/32 \\ 10/1/33 \end{array} \right\}$	1/2/33	279
3608.....	—	—	—	—	—	—	—	—	282
3609*.....	—	—	—	—	—	—	—	—	—
GROUP C.									
3611.....	8/11/30	14/8/31	279	Male.	65-6	14/2/32 $\left\{ \begin{array}{l} 9/12/31 \\ 14/12/31 \end{array} \right\}$	21/11/32 $\left\{ \begin{array}{l} 8/9/32 \\ 23/9/32 \end{array} \right\}$	281	281
3612.....	3/12/30	31/8/31	271	Male.	65-0	—	—	—	274
3613.....	29/10/30	12/8/31	288	Male.	96-0	—	—	—	284
3614*.....	—	—	—	Female.	77-5	6/1/32 $\left\{ \begin{array}{l} 24/1/32 \\ 9/12/31 \end{array} \right\}$	14/10/32 $\left\{ \begin{array}{l} 18/9/32 \\ 14/9/32 \end{array} \right\}$	282	282
3615.....	24/10/30	5/8/31	286	Female.	75-0	—	—	—	281
3616.....	20/10/30	4/8/31	289	Female.	87-5	—	—	—	284
3617.....	1/11/30	9/8/31	282	Male.	—	—	—	—	286
3618.....	—	—	—	—	—	—	—	—	286
3619.....	14/11/30	18/8/31	277	Male.	69-0	9/1/32 $\left\{ \begin{array}{l} 4/12/31 \\ 9/9/32 \end{array} \right\}$	12/10/32 $\left\{ \begin{array}{l} 9/9/32 \\ 9/9/32 \end{array} \right\}$	277	280
3620.....	22/10/30	30/7/31	282	Female.	75-0	—	—	—	280

* Drafted into experiment

TABLE XXV.

Data, 1930-1942.

1932-1933.

1932-1933-1934.

1933-1934-1935.

Sex of Calf.	Birthweight of Calf.	Date of Service.	Date of Calving.	Gestation Period.	Sex of Calf.	Birth-weight of Calf.	Date of Service.	Date of Calving.	Gestation Period.	Sex of Calf.	Birth-weight of Calf.	Ib.
—	—	—	—	—	—	—	—	—	—	—	—	—
Male.	82.0	24/8/33	1/6/34	281	Female.	69.0	26/8/34	7/6/35	285	Female.	59.0	
Male.	77.0	7/12/32	15/9/33	282	Female.	74.5	27/12/33	6/10/34	283	Female.	77.5	
Female.	67.0	8/9/33	14/5/34	278	Male.	71.0	5/8/34	5/5/35	273	Male.	65.0	
Male.	83.5	29/1/33	31/10/33	275	Female.	64.0	26/1/34	25/10/34	272	Female.	61.0	
Female.	68.0	28/12/32	5/10/33	281	Male.	81.0	9/1/34	14/10/34	278	Male.	75.0	
Female.	77.0	20/1/34	23/10/34	276	Female.	53.0	—	—	—	—	—	
Male.	80.0	6/2/33	16/11/33	283	Male.	87.0	28/2/34	4/12/34	279	Male.	78.0	
Female.	94.0	16/7/33	28/10/33	285	Male.	99.0	13/2/34	22/11/34	282	Female.	54.5	
Male.	79.0	26/5/33	4/3/34	282	Female.	78.0	3/7/34	11/4/35	282	Male.	51.0	
Female.	50.5	18/9/33	1/7/34	286	Male.	69.5	5/10/34	8/7/35	276	Female.	67.0	
Male.	79.5	23/5/33	28/2/34	281	Male.	68.0	1/6/34	28/2/35	272	Female.	57.0	
Female.	60.0	1/8/33	9/5/34	281	Female.	53.0	13/8/34	13/5/35	273	Male.	59.0	
Female.	75.5	21/5/33	21/2/34	276	Male.	76.0	1/6/34	5/3/35	277	Male.	53.0	
Female.	52.0	4/5/33	4/2/34	276	Female.	75.0	4/6/34	7/3/35	276	Male.	66.0	
Female.	77.0	14/4/34	19/1/35	280	Male.	69.0	—	—	—	—	—	
Female.	77.5	25/10/33	31/7/34	279	Female.	70.0	—	—	—	—	—	
Female.	83.5	23/5/33	27/2/34	280	Male.	98.0	5/6/34	8/3/35	276	Male.	79.0	
Male.	78.0	8/5/33	11/2/34	279	Female.	75.0	7/5/34	9/2/35	278	Female.	60.0	
Female.	67.0	14/12/32	16/9/33	276	Male.	75.5	22/12/33	17/9/34	269	Female.	51.0	
Female.	84.0	16/1/33	20/10/33	277	Male.	82.0	24/4/34	18/1/35	269	Female.	47.5	
Female.	71.0	27/3/33	5/1/34	284	Male.	75.0	21/9/34	—	—	—	—	
Female.	80.0	16/1/33	27/10/33	284	Female.	86.0	28/1/34	31/10/34	276	Male.	77.0	
Male.	90.0	12/5/33	15/2/34	279	Female.	73.0	6/6/34	11/3/35	278	Female.	44.0	
Male.	94.0	23/12/32	5/10/33	286	Female.	87.0	4/3/34	Died 4/12/34	Aborted	—	—	
Female.	66.0	19/1/33	26/10/33	274	Female.	71.0	29/1/34	28/11/34	272	Male.	57.0	
Male.	69.0	6/1/33	19/10/33	286	Male.	76.0	26/1/34	272	Male.	72.5		

into experiment 11/12/31.

→ 321-322B

TABLE XXXV—(con-

Group and D.O.B. No.	Date of Service.	1934—1935—1936.			1935—1936—1937.			
		Date of Calving.	Gestation Period.	Sex of Calf.	Birth-weight of Calf.	Date of Service.	Date of Calving.	Gestation Period.
Group A.								
3593	4/9/35	9/6/36	279	Male.	70.0	14/9/36	26/6/37	Male.
3594	10/1/35	16/10/35	279	Male.	60.0	8/1/36	27/10/36	Female.
3595	7/8/35	11/5/36	278	Female.	67.0	—	—	—
3596	20/1/35	22/10/35	275	Female.	71.0	21/4/36	14/1/37	Male.
3597	18/3/35	18/12/35	275	Male.	71.0	14/2/36	17/11/36	Male.
3598	10/1/35	17/10/35	280	Male.	70.0	28/1/36	4/11/36	Male.
3599	11/3/35	17/12/35	281	Female.	66.0	2/3/36	5/12/36	Male.
3600	25/6/35	19/3/36	268	Male.	37.5	3/7/36	6/4/37	Male.
Group B.								
3601	9/7/35	10/4/36	276	Female.	55.0	17/7/36	17/4/37	Female.
3602	19/9/35	24/6/36	279	Male.	61.5	4/9/36	4/6/37	Female.
3603	5/7/35	6/4/36	276	Male.	55.5	30/6/36	3/4/37	Pennik.
3604	20/9/35	Aborted 27/5/36	—	—	—	—	—	—
3605	—	—	—	—	—	—	—	—
3606	9/7/35	12/4/36	278	Female.	51.0	27/7/37	—	Male.
3707	—	—	—	—	—	29/7/36	29/4/37	Male.
3608	16/5/35	16/2/36	276	Female.	82.0	28/4/36	—	Female.
3609	—	—	—	—	—	10/1/37	277	—
Group C.								
3611	5/6/35	6/3/36	275	Male.	Not recorded.	—	—	—
3612	7/3/35	1/12/35	269	Male.	43.0	2/6/36	27/2/37	Female.
3613	—	—	—	—	—	—	—	—
3614	12/12/34	17/9/35	279	Male.	64.0	2/1/36	5/10/36	Female.
3615	12/1/35	22/10/35	283	Female.	79.5	9/1/36	15/10/36	Female.
3616	6/6/35	2/3/36	270	Female.	58.5	12/6/36	18/3/37	Male.
3617	—	—	—	—	—	—	—	—
3618	27/1/35	29/10/35	275	Male.	64.0	9/1/36	14/10/36	Female.
3619	22/7/35	28/10/35	279	Male.	64.0	11/3/36	7/12/36	Male.
3620	—	—	—	—	—	—	—	—

I-(continued).

TABLE XXV (cont.)

1936—1937—1938.				1937—1938—1939.			
Date of Service.	Date of Calving.	Gestation Period.	Sex of Calf.	Date of Birth-weight of Calf.	Date of Service.	Date of Calving.	Cestation Period.
Died 25/7/37 22/3/37 21/1/37 2/4/37	7/1/38 24/10/37 1/1/38	— 291 276 274	Male. Female. Male.	— 73·0 54·0 60·0	12/4/38 30/5/38 5/5/38	16/1/39 28/2/39 2/2/39	— 279 274 273
Sold for slaughter on 21/7/38 13/2/37 12/3/37 Sold for	17/11/37 18/12/37 slaughter on 21/7/38	277 281 21/7/38	Female. Female. —	4/4/38 6/5/38	11/1/39 10/2/39	— 282 280	— Male. Female.
67·5	—	—	—	—	—	—	66·5 68·0
25/10/37 9/10/37 3/7/37 20/2/38	22/7/38 14/7/38 7/4/38 27/11/38	270 278 278 —	Female. Male. Female. Male.	66·0 60·0 66·0 60·5	4/11/38 10/10/38 29/7/38 5/4/39	31/7/39 7/7/39 7/5/39 Aborted 1/8/39	269 270 282
— 2/8/37 24/4/37	— 7/5/38 25/1/38	— 278 276	— Female. Female.	— 78·0 75·0	— 23/9/38 — —	— 4/7/39 — —	— — —
30/5/37	27/2/38	— 273	Male.	— 40·5	— 13/7/38	— Aborted 24/11/38	— —
27/3/37 15/1/37 25/6/37	3/1/38 24/10/37 3/4/38	282 282 282	Male. Female. Male.	60·5 65·0 73·0	14/4/38 25/1/38 30/6/38	20/1/39 1/11/38 3/4/39	— 281 280
23/1/37 4/3/37	28/10/37 9/12/37	278 280	Female. Female.	57·0 67·5	6/4/38 11/1/39 23/3/38	— 11/1/39 28/12/38	— 280 280
							— Female. Female.
							73·0 71·5

TABLE XXXV—(continued).

Group and Cow No.	1938—1939—1940.				1939—1940—1941.				1940—1941—1942.				
	Date of Service.	Date of Calving.	Gestation Period.	Sex of Calf.	Days.	Date of Service.	Date of Calving.	Gestation Period.	Sex of Calf.	Birth-weight of Calf.	Date of Calving.	Gestation Period.	Sex of Calf.
GROUP A.													
3593.....	16/6/39	23/3/40	—	Male.	—	13/7/40	12/4/41	—	Female.	65·0	—	—	—
3594.....	6/9/39	5/6/40	Died 11/11/39	Male.	82·0	19/10/40	25/7/41	—	Female.	56·0	—	—	—
3595.....	3/5/39	—	—	Male.	62·0	—	—	—	—	—	—	—	—
3596.....	—	—	—	Male.	—	—	—	—	—	—	—	—	—
3597.....	—	—	—	Male.	—	—	—	—	—	—	—	—	—
3598.....	19/4/39	20/1/40	—	Male.	64·0	29/5/40	8/2/41	—	Male.	72·5	77	Male.	77·0
3599.....	20/5/39	24/2/40	—	Twin Females.	43·0	—	—	—	Female.	62·0	15/5/42	Male.	72·5
3600.....	—	—	—	Female.	47·5	—	—	—	—	—	—	—	—
GROUP B.													
3601.....	20/10/39	18/7/40	272	Female.	57·5	6/8/41	20/10/41	—	—	—	—	—	—
3602.....	5/10/39	9/7/40	278	Male.	51·0	20/8/40	24/6/40	277	Female.	58·0	—	—	—
3603.....	2/8/39	16/5/40	278	Male.	67·0	—	—	—	—	—	—	—	—
3604.....	24/2/40	Aborted 14/8/40	—	—	—	—	—	—	—	—	—	—	—
3605.....	—	—	—	Female.	66·0	14/2/41	23/11/41	282	Female.	53·0	—	—	—
3606.....	3/10/39	4/7/40	—	—	—	—	—	—	—	—	—	—	—
3607.....	—	—	—	Female.	—	—	—	—	—	—	—	—	—
3608.....	3609.....	—	—	Female.	—	—	—	—	—	—	—	—	—
GROUP C.													
3611.....	—	21/11/39	264	Male.	31·8	—	—	—	—	—	—	—	—
3612.....	2/3/39	—	—	Male.	—	—	—	—	—	—	—	—	—
3613.....	—	11/3/40	283	Male.	60·0	19/6/40	24/3/41	278	Female.	58·0	27/5/42	Male.	73·5
3614.....	2/6/39	1/11/39	278	Male.	58·0	—	—	—	—	—	—	—	—
3615.....	27/1/39	Aborted 23/1/40	—	Female.	—	21/6/40	31/3/41	283	Female.	42·5	30/5/42	Female.	39·0
3616.....	30/6/39	4/2/40	274	Female.	47·0	4/5/40	13/2/41	285	Male.	65·0	31/10/41	Male.	41·0
3617.....	6/5/39	29/4/40	279	Male.	69·0	8/8/40	Aborted 21/2/41	—	—	14·5	—	—	—
3618.....	25/7/39	—	—	—	—	—	—	—	—	—	—	—	—
3619.....	—	—	—	—	—	—	—	—	—	—	—	—	—
3620.....	—	—	—	—	—	—	—	—	—	—	—	—	—

TABLE XXVI.

Gestation Period.—Frequencies.

(a) FIRST CALVING

GROUP ^a .	GESTATION PERIODS IN DAYS.												Total.								
	264	269	271	272	273	274	275	276	277	278	279	280	281	282	283	284	285	286	287	288	289
A.....	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	8
B.....	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	6
C.....	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	8

(b) SECOND CALVING.

A.....	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	8
B.....	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	9
C.....	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	9

(c) THIRD CALVING.

A.....	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	8
B.....	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	9
C.....	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	9

(d) FOURTH CALVING.

A.....	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	7
B.....	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	7
C.....	—	—	2	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	7

RESEARCHES INTO STERILITY OF COWS IN SOUTH AFRICA.

TABLE XXVI (*continued*).

(e) FIFTH CALVING.

Groups.	GESTATION PERIODS IN DAYS.												TOTALS.
	264	268	269	270	272	273	274	275	276	277	278	279	
A.....	—	1	—	—	—	—	—	—	2	—	1	1	—
B.....	—	—	—	—	—	—	—	—	3	—	1	—	—
C.....	—	—	—	1	1	—	—	—	2	—	—	—	7

(f) SIXTH CALVING.

Groups.	GESTATION PERIODS IN DAYS.												TOTALS.
	264	268	269	270	272	273	274	275	276	277	278	279	
A.....	—	1	—	—	—	—	—	—	—	2	1	—	—
B.....	—	—	—	—	—	—	—	—	1	—	—	1	—
C.....	—	—	—	—	—	—	—	—	—	2	1	—	—

(g) SEVENTH CALVING.

Groups.	GESTATION PERIODS IN DAYS.												TOTALS.
	264	268	269	270	272	273	274	275	276	277	278	279	
A.....	—	—	—	—	—	—	—	—	1	—	—	—	—
B.....	—	—	—	—	—	—	—	—	1	—	—	—	—
C.....	—	—	—	—	—	—	—	—	—	1	—	—	—

(h) EIGHTH CALVING.

Groups.	GESTATION PERIODS IN DAYS.												TOTALS.
	264	268	269	270	272	273	274	275	276	277	278	279	
A.....	—	—	—	—	—	—	—	—	1	—	—	—	—
B.....	—	—	—	—	—	—	—	—	—	—	1	—	—
C.....	—	—	—	—	—	—	—	—	—	3	1	—	—

TABLE XXVI (*continued*).

(i) NINTH CALVING.

Groups.	GESTATION PERIODS IN DAYS.												TOTALS.
	264	268	269	270	272	273	274	275	276	277	278	279	
A.....	—	—	—	—	—	1	—	—	1	—	—	—	—
B.....	—	—	—	—	1	—	—	—	—	—	—	—	4
C.....	1	—	—	—	—	1	—	—	1	—	—	—	5

(j) TENTH CALVING.

Groups.	GESTATION PERIODS IN DAYS.												TOTALS.
	264	268	269	270	272	273	274	275	276	277	278	279	
A.....	—	—	—	—	—	—	1	—	—	1	—	—	4
B.....	—	—	—	—	—	—	—	—	—	—	—	—	2
C.....	—	—	—	—	—	—	—	—	—	—	—	—	3

(k) ELEVENTH CALVING.

Groups.	GESTATION PERIODS IN DAYS.												TOTALS.
	264	268	269	270	271	272	273	274	275	276	277	278	
A.....	—	—	—	—	—	—	—	1	—	—	—	—	2
B.....	—	—	—	—	—	—	—	—	—	—	—	—	0
C.....	—	—	—	—	—	—	—	—	—	—	—	—	3

Groups.	GESTATION PERIODS IN DAYS.												TOTALS.
	264	268	269	270	271	272	273	274	275	276	277	278	
A (eleven calvings)	—	2	—	—	—	2	3	3	4	3	7	5	6
B (ten calvings)	1	—	1	2	—	2	2	1	1	9	5	7	4
C (eleven calvings)	1	—	3	2	1	1	2	3	2	2	5	5	8
TOTALS.,	2	2	4	4	1	5	7	7	7	14	17	17	18

RESEARCHES INTO STERILITY OF COWS IN SOUTH AFRICA.

TABLE XXVII

GROUP.	SEX.	FIRST PERIOD.			SECOND PERIOD.		
		No.	Gestation Period.		No.	Gestation Period.	
			Range.	Average.		Range.	Average.
			Days.	Days.		Days.	Days.
A.....	M	4	275-285	279·2	4	277-282	279·7
	F	4	277-281	279·7	4	272-286	281·5
B.....	M	2	279-287	283·9	2	281-282	281·5
	F	4	277-287	280·8	7	264-285	280·1
C.....	M	5	271-288	279·4	4	280-286	282·8
	F	3	282-289	285·7	5	274-284	279·6
ALL GROUPS....	M	11	271-288	280·0	10	277-286	281·3
	F	11	277-289	282·1	16	264-286	280·4

GROUP.	SEX.	SEVENTH PERIOD.			EIGHTH PERIOD.		
		No.	Gestation Period.		No.	Gestation Period.	
			Range.	Average.		Range.	Average.
			Days.	Days.		Days.	Days.
A.....	M	2	274-291	282·5	3	273-282	276·3
	F	3	276-281	278·0	2	279-280	279·5
B.....	M	2	278-280	279·0	1	282-	282·0
	F	4	270-278	275·5	3	269-284	274·3
C.....	M	3	273-282	279·0	1	280-	280·0
	F	3	278-282	280·0	4	277-281	279·5
ALL GROUPS....	M	7	273-291	280·2	5	273-282	279·4
	F	10	270-282	277·8	9	269-284	277·8

TABLE XXVII. (*cont.*) *Gestation Periods.*

THIRD PERIOD.			FOURTH PERIOD.		
No.	Gestation Period.		No.	Gestation Period.	
	Range.	Average.		Range.	Average.
	Days.	Days.		Days.	Days.
4	278-285	281·7	3	273-279	276·7
3	275-282	278·5	5	272-285	280·5
5	276-286	280·6	5	273-282	276·8
4	276-282	279·5	2	272-276	274·0
4	276-286	280·7	3	272-280	276·0
5	274-286	280·4	4	269-278	273·5
13	276-286	281·0	11	272-282	276·5
12	274-286	279·5	11	269-282	276·0

NINTH PERIOD.			TENTH PERIOD.		
No.	Gestation Period.		No.	Gestation Period.	
	Range.	Average.		Range.	Average.
	Days.	Days.		Days.	Days.
3	273-286	278·3	1	278-	278·0
Twins. 1 & 1	280-	280·0	3	274-283	278·5
2	278-278	278·0	—	—	—
2	272-275	273·5	2 (1† abortion)	277-282	279·5
4	264-283	276·0	2	285-	285·0
1	274-	274·0	2	278-283	280·5
9	264-286	277·4	3	278-285	281·5
5	272-280	275·8	7	274-283	279·6

M. = Males.

F. = Females.

TABLE XXVII (*cont.*)

FIFTH PERIOD.			SIXTH PERIOD.		
No.	Gestation Period.		No.	Gestation Period.	
	Range.	Average.		Range.	Average.
	Days.	Days.		Days.	Days.
5	268-280	262·2	6	268-285	277·7
3	275-281	278·0	1	293-	293·0
2	276-279	277·5	1	283-	283·0
3	276-278	276·7	4	273-277	275·3
5	269-279	275·4	2	279-281	280·0
2	270-283	276·5	4	270-280	276·5
12	268-280	276·4	9	268-285	280·2
8	270-283	277·1	9	270-293	281·6

ELEVENTH PERIOD.			ALL PERIODS.		
No.	Gestation Period.		No.	Gestation Period.	
	Range.	Average.		Range.	Average.
	Days.	Days.		Days.	Days.
2	277-282	279·5	37	268-291	278·7
—	—	—	30	272-293	279·9
—	—	—	22	273-287	280·2
—	—	—	35	264-287	277·5
2	273-289	281·0	35	264-289	279·6
1	308-	308·0	34	269-308	279·7
4	273-289	280·3	94	264-291	279·5
1	308-	308·0	99	264-308	279·0

Group and D.O.B. No. of Cow.	Approximate age at inclusion in Experiment.	AGE AT FIRST CALVING.		AGE AT SUBSEQUENT CALVINGS AND ABORTIONS.						
		1st.	2nd.	3rd.	4th.	5th.	6th.	7th.		
GROUP A.	JULY, 1929. MONTHS.	Years. Months	Years. Months.	Years. Months.	Years. Months.	Years. Months.	Years. Months.	Years. Months.	Years. Months.	Years. Months.
3591.....	15	A. 12/1/31	—	—	—	—	—	—	—	—
3592.....	15	B. 2 11	3 10	C. 11/2/1932	—	—	—	—	—	—
3593.....	15	3 4	4 5	5 3	6 2	7 3	8 3	9 3	—	—
3594.....	15	3 4	4 5	5 5	6 7	7 7	8 7	9 10	—	—
3595.....	15	3 6	4 5	6 1	7 2	8 2	9 7	10 11	—	—
3596.....	45	E.	4 7	5 7	6 7	7 7	8 10	9 9	—	—
3597.....	15	3 4	4 6	5 6	6 7	7 9	8 8	F. 21/7/1938	—	—
3598.....	15	3 5	5 0	6 7	7 7	8 7	9 8	10 10	—	—
3599.....	15	3 5	4 5	5 7	6 8	7 9	8 9	9 9	—	—
3600.....	15	3 5	4 6	5 7	6 8	8 0	9 1	F. 21/7/1938	—	—
GROUP B.										
3601.....	15	3 9	4 10	5 11	7 1	8 1	9 1	10 4	—	—
3602.....	15	B. 3 10	5 3	6 3	7 4	8 3	9 2	10 4	—	—
3603.....	45	E. —	4 9	5 10	6 11	8 1	9 0	10 1	—	—
3604.....	15	3 10	4 10	6 1	7 2	B. 8 2	8 7	10 8	—	—
3605.....	15	3 9	4 9	5 10	7 0	C. 31/5/1935	—	—	—	—
3606.....	15	3 10	4 10	5 11	7 0	B. 9 9	C. 27/12/1937	—	—	—
3607.....	15	3 9	4 9	6 9	8 1	9 1	10 2	11 3	—	—
3608.....	15	3 10	4 10	B. 5 5	6 4	H. 21/7/1938	—	—	—	—
3609.....	45	E.	4 9	5 10	7 0	7 11	8 10	9 10	—	—
3610.....	15	C. 11/8/1929	—	—	—	—	—	—	—	—
GROUP C.										
3611.....	15	3 4	4 7	5 10	6 11	8 0	F. 21/9/1938	—	—	—
3612.....	15	3 5	4 5	5 5	6 6	7 8	8 11	9 11	—	—
3613.....	15	3 4	4 5	5 6	6 10	F. 21/7/1938	—	—	—	—
3614.....	45	E. —	4 6	5 8	7 6	8 7	9 9	10 10	—	—
3615.....	J. 15	1 8	C. 4/8/1930	—	—	—	—	—	—	—
3616.....	15	3 4	4 7	5 7	6 7	7 7	8 7	9 7	—	—
3617.....	15	3 4	4 5	5 10	7 0	7 11	9 0	10 0	—	—
3618.....	15	3 4	4 5	5 5	B. 6 8	C. 4/12/1934	—	—	—	—
3619.....	15	3 5	4 6	5 6	6 7	7 7	8 7	9 7	—	—
3620.....	15	3 4	4 5	5 6	6 7	7 7	8 9	9 9	—	—

TABLE XXVIII.

Summary of the History of Reproduction

AND ABORTIONS.

				No. OF PREGNANCIES.		PERIODS BETWEEN S IN MONTHS AND I			
8th.	9th.	10th.	11th.	Calves.	Abortions.	1-2	2-3	3-4	4-5
Years. Months.	Years. Months.	Years. Months.	Years. Months.						
—	—	—	—	0	0	—	—	—	—
—	—	—	—	1	1	10·9	—	—	—
C. 25/7/1937	—	—	—	6	1	13·3	9·7	11·1	12·2
10 10	12 0	13 0	—	10	0	12·6	12·5	12·7	12·4
12 3	13 4	D. 14 3	—	9	0	11·5	20·5	11·7	12·2
10 10	G. 11/11/1939	—	—	7	0	—	17·8	13·8	11·9
—	—	—	—	6	0	13·5	12·6	13·3	14·2
11 10	12 10	14 1	—	10	0	19·6	18·6	11·8	12·6
10 11	H. 11 11	12 11	14 1	12	0	11·9	14·6	12·6	12·5
—	—	—	—	6	0	13·3	12·9	12·8	15·9
11 4	12 4	D. 14 3	—	9	0	11·3	13·4	13·3	12·0
11 4	12 4	B. 13 7	—	8	2	16·9	12·8	12·3	11·6
11 2	12 2	13 2	D. 14 3	9	0	—	13·5	12·0	13·2
B. 11 4	B. 12 5	H. 2/7/1941	—	5	4	11·6	15·5	12·1	12·5
—	—	—	—	4	0	12·3	13·2	12·4	—
—	—	—	—	4	1	11·0	13·0	13·1	33·5
12 3	13 8	H. 10/7/1942	—	9	0	12·3	23·9	14·8	12·6
—	—	—	—	3	1	12·4	6·7	11·3	—
C. 3/2/1938	—	—	—	6	0	—	13·6	12·3	11·3
—	—	—	—	0	0	—	—	—	—
—	—	—	—	5	0	15·2	14·7	12·0	12·8
B. 10 8	B. 11 8	F. —	—	7	2	12·3	12·3	12·0	14·5
—	—	—	—	4	0	13·4	12·9	15·0	—
12 0	13 0	14 2	H. 9/11/42	9	0	—	14·7	20·4	12·6
—	—	—	—	1	0	—	—	—	—
10 7	11 7	F. —	—	9	0	14·9	11·9	12·1	11·7
11 0	B. 11 10	13 0	14 2	10	1	13·5	16·9	12·9	11·6
—	—	—	—	3	1	13·2	12·7	13·8	—
10 10	11 10	12 11	14 4	11	0	13·8	12·3	12·3	12·0
10 9	12 1	B. 12 11	D. 14 3	9	1	13·3	13·3	12·5	11·9

= Killed in Extremis.

= Aborted.

= Died.

← 333-334a

D = Pregnant at Slaughter.

E = Not in Experiment at first Calving.

F = Sold.

333-334b

333-334c →

G = Twins.

H = Slaughtered.

J = Pregnancy un-

TWEE SUCCESSIVE CALVINGS AND ABORTIONS.
AND DECIMAL FRACTIONS OF MONTHS.

No. of Services
required to Establish
Pregnancy throughout
the Experiment.

Age at which died
from natural causes
as stated.

Age at
which
Slaugh-
tered.

REMARKS ON OVARIES
AT POSTMORTEM.

5-6	6-7	7-8	8-9	9-10	10-11	Range.	Average.	Months' Age.	Cause.	Months.	Right Ovary.	Left Ovary.
—	—	—	—	—	—	2	2	—	Pneumonia.....	33	Normal.	Normal.
—	—	—	—	—	—	1-2	1-5	46	Septicæmia Uterine prolapse.....	—	Normal.	Normal.
12-1	12-6	—	—	—	—	1-3	1-1	112	Toxaæmia-Generalised Abscessation.....	—	Normal.	Normal.
12-4	14-4	12-3	14-6	12-7	—	1-6	1-5	—	—	169	Cystic.	Cystic.
17-5	16-2	15-2	13-7	—	—	1-8	2-8	—	—	D. 171	Normal.	Normal.
14-8	11-5	13-1	—	—	—	1-2	1-3	139	Pneumonia.....	—	Normal.	Normal.
11-0	—	—	—	—	—	1-4	1-5	—	—	124	Cystic.	Normal.
12-4	13-8	12-3	12-6	15-1	—	1-5	2-1	—	—	175	Normal.	Cystic Corpus Luteum
11-6	12-5	13-8	12-4	12-4	14-2	1-4	1-4	—	—	175	Normal.	Normal.
12-6	—	—	—	—	—	1-3	1-5	—	—	124	Cystic.	Cystic.
12-2	15-2	12-3	11-6	—	—	1-24	3-7	—	—	D. 171	Normal.	Normal.
11-3	13-3	11-8	12-1	—	—	1-13	2-3	165	Pneumonia.....	—	Normal.	Normal.
11-9	12-1	13-0	12-3	12-3	—	1-2	1-1	—	Destroyed on account of debility.....	D. 171	Normal.	Normal.
4-3	25-8	8-1	12-5	—	—	1-9	3-8	—	Destroyed on account of rectal stenosis and vaginal prolapse.....	150	Cystic.	Cystic.
—	—	—	—	—	—	1	1-0	86	Intestinal Stenosis....	—	Normal.	Normal.
—	—	—	—	—	—	1-9	2-6	117	Toxaæmia due to abortion.....	—	Normal.	Normal.
12-3	13-9	12-0	16-5	—	—	1-7	1-8	—	—	171	Normal.	Normal.
—	—	—	—	—	—	1-2	1-3	—	—	124	Cystic.	Normal.
11-5	11-9	—	—	—	—	1-2	1-2	118	Post-Parturient Collapse.....	—	Normal.	Normal.
—	—	—	—	—	—	—	—	17	Anaplasmosis	—	Normal.	Normal.
—	—	—	—	—	—	1-2	1-2	—	—	124	Cystic.	Cystic.
14-9	12-0	10-9	11-9	—	—	1-4	1-6	—	—	150	Cystic.	Cystic.
—	—	—	—	—	—	1-	1-0	—	—	124	Cystic.	Cystic.
15-0	12-6	13-6	12-4	14-1	—	1-4	1-6	—	—	175	Normal.	Normal.
—	—	—	—	—	—	—	—	28	—	—	No Record.	No Record.
11-8	12-3	12-3	12-0	—	—	1-2	1-1	—	—	150	Cystic.	Cystic.
12-5	12-5	12-0	9-7	14-3	14-0	1-4	1-5	—	—	175	Normal.	Normal.
—	—	—	—	—	—	1-	1-0	80	Traumatic Pericarditis	—	Normal.	Normal.
11-5	12-5	14-5	12-8	12-3	17-6	1-2	1-1	172	Died during Parturition Debility.....	—	Normal.	Normal.
13-6	11-7	12-6	16-0	9-8	—	1-3	1-3	—	—	D. 171	Normal.	Normal.

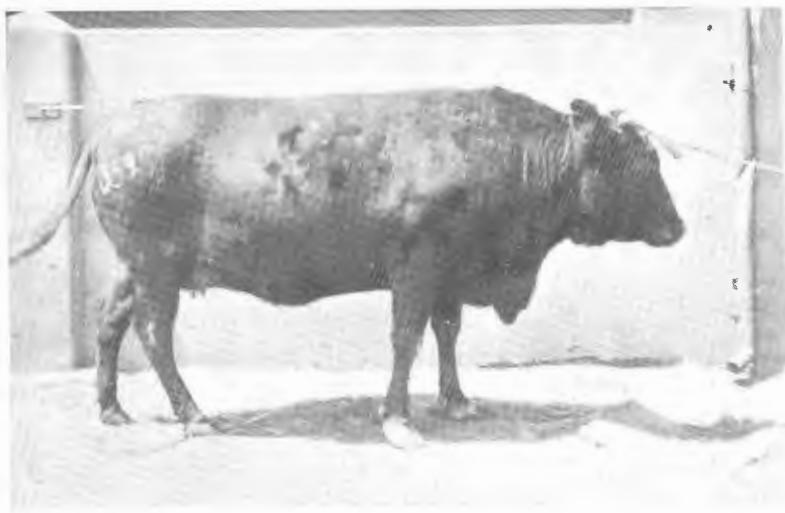


FIG. 1.—Group A: Cow 3595.

Date: 25.9.37.
Age: 9 years 6 months.
Weight: 1,517 lb.



FIG. 2.—Group B: Cow 3603.

Date: 25.9.37.
Age: 9 years 6 months.
Weight: 1,263 lb.

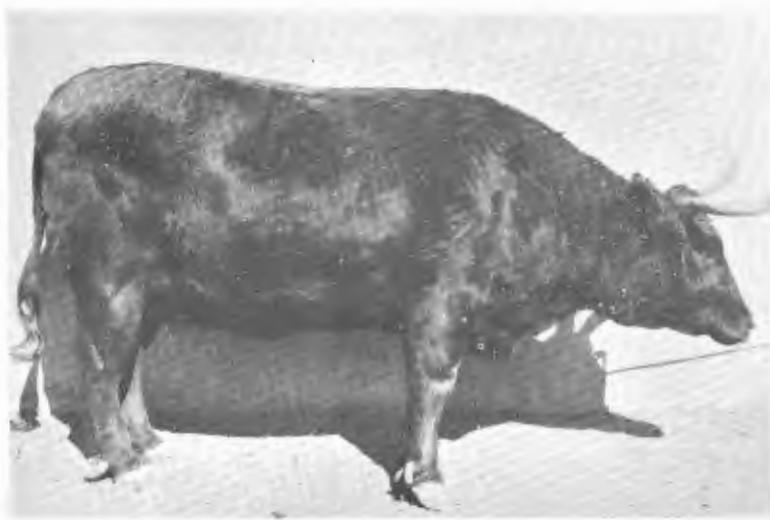


FIG. 3.—Group B: Cow 3606.

Date: 16.7.37.
Age: 9 years 4 months.
Weight: 1,519 lb.

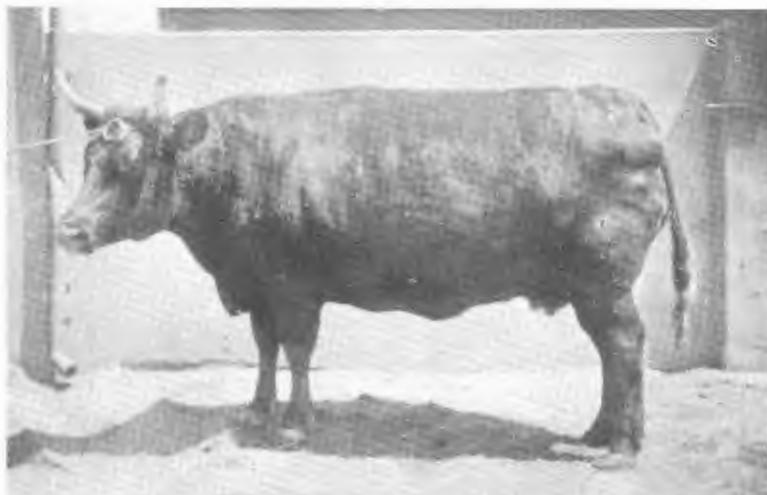


FIG. 4.—Group C: Cow 3613.

Date: 25.9.37.
Age: 9 years 6 months.
Weight: 1,744 lb.

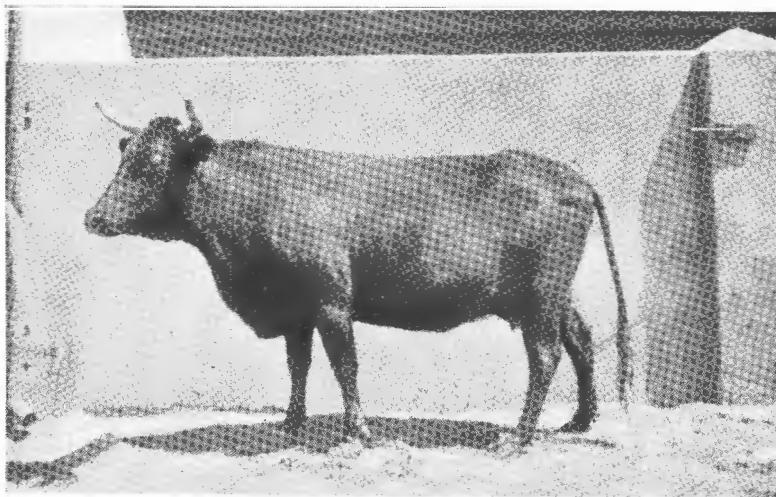


FIG. 5.—Group C: Cow 3620.

Date: 25.9.37.
Age: 9 years 6 months.
Weight: 1,043 lb.

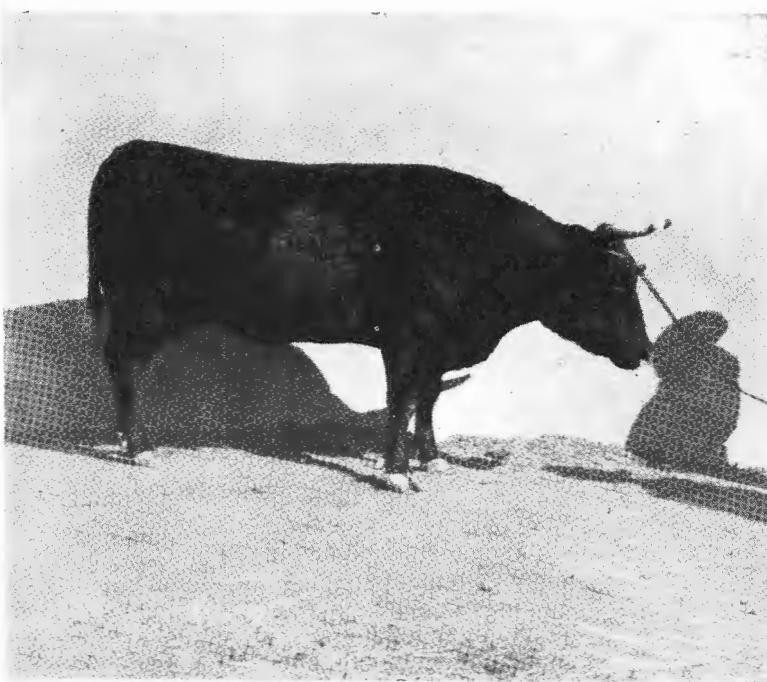


FIG. 6.—Group A: Cow 3597.

Date: 20.7.38.
Age: 10 years 4 months.
Weight: 1,258 lb.



FIG. 7.—Group A: Cow 3600.

Date: 30.6.38.
Age: 10 years 3 months.
Weight: 1,471 lb.

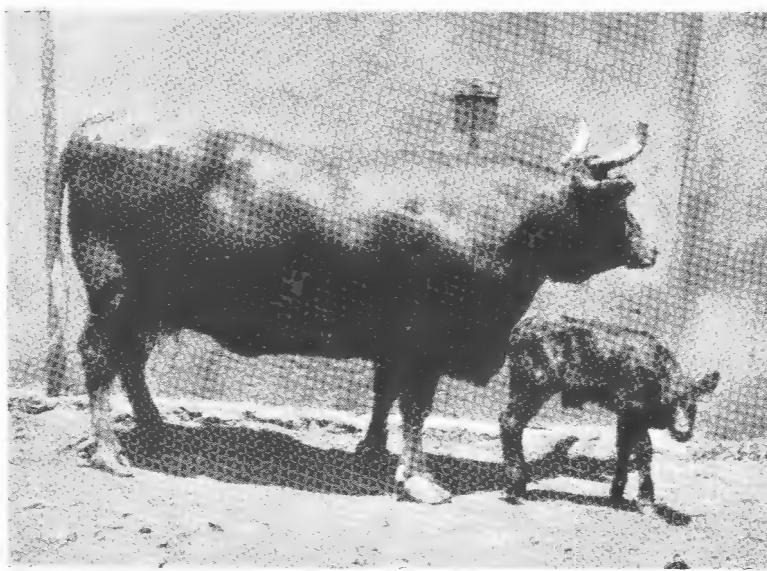


FIG. 8.—Group B: Cow 3604 and calf.

Date: 28.11.38.
Age: 10 years 8 months.
Weight: 1,548 lb.



FIG. 9.—Group C: Cow 3611.

Date: 30.6.38.
Age: 10 years 4 months.
Weight: 1,541 lb.

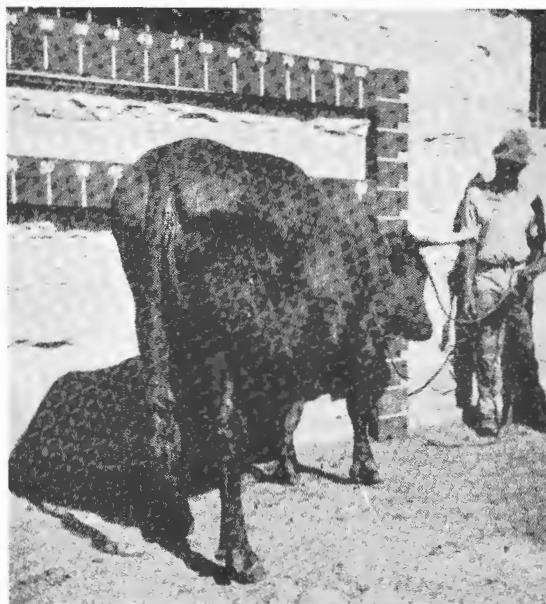


FIG. 10.—Group B: Cow 3603.

Date: 17.7.41.
Age: 13 years 4 months.
Weight: 1,275 lb.



FIG. 11.—Group B: Cow 3603.
Date: 17.7.41.
Age: 13 years 4 months.
Weight: 1,275 lb.



FIG. 12.—Group C: Cow 3619.
Date: 17.7.41.
Age: 13 years 4 months.
Weight: 745 lb.



FIG. 13.—Group A: Cows 3598, 3594, 3595.

Date: 14.4.42.
Ages: 14 years 1 month.
Weights: 1,185, 1,470, 1,270 lb.

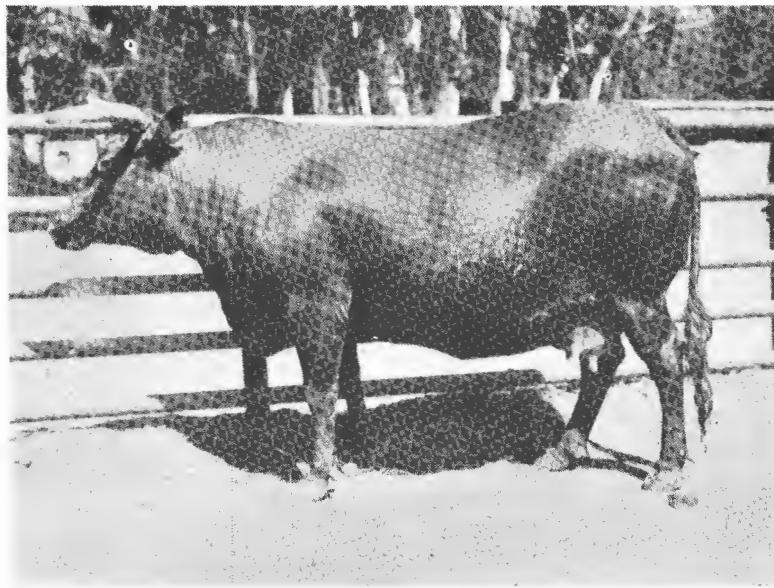


FIG. 14.—Group A: Cow 3594.

Date: 14.4.42.
Age: 14 years 1 month.
Weight: 1,470 lb.

RESEARCHES INTO STERILITY OF COWS IN SOUTH AFRICA.



FIG. 15.—Group A: Cow 3598.

Date: 14.4.42.
Age: 14 years 1 month.
Weight: 1,185.

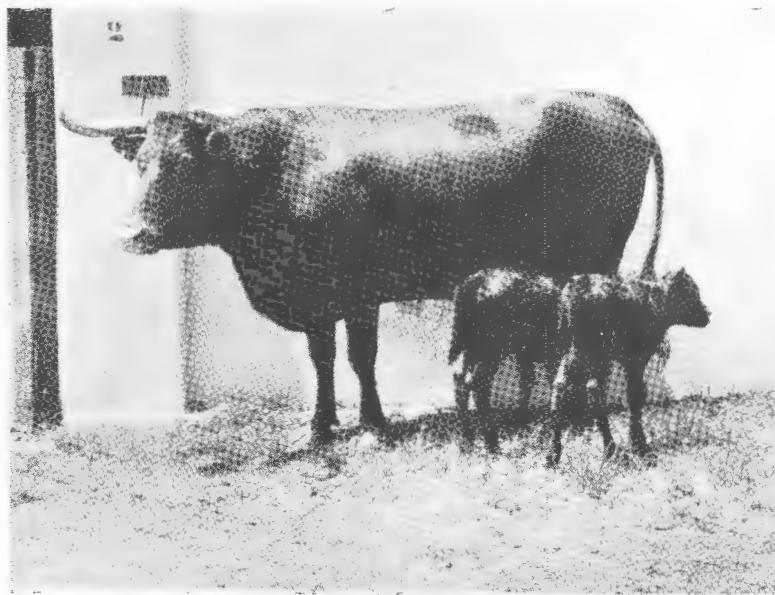


FIG. 16.—Group A: Cow 3599 and twin calves.

Date: 26.2.40.
Age: 11 years 11 months.
Weight: 1,124 lb.

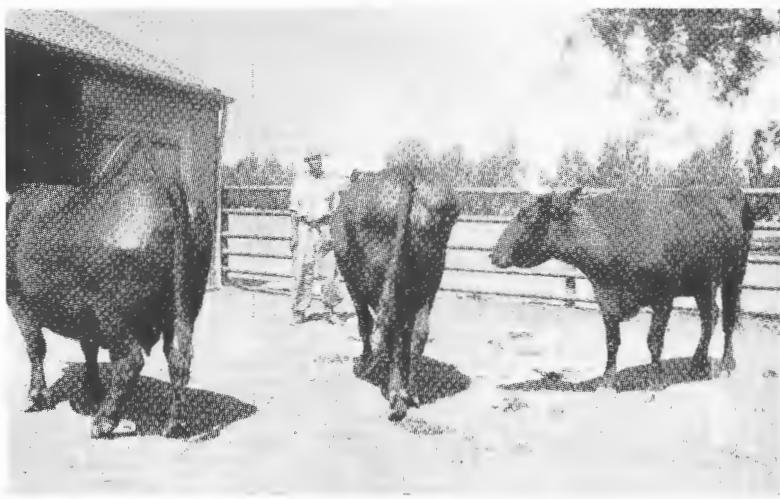


FIG. 17.—Group B: Cows 3607, 3603, 3601.

Date: 14.4.42.

Ages: 14 years 1 month.

Weights: 850, 1,350, 1,276 lb.

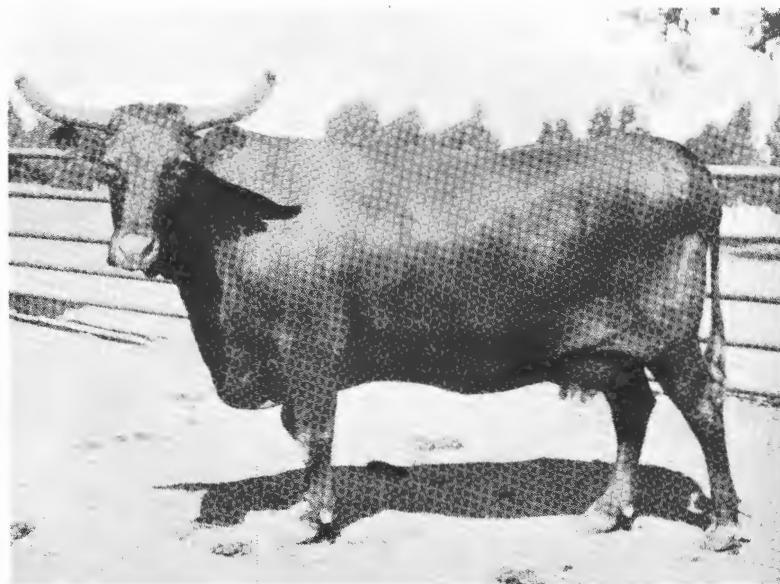


FIG. 18.—Group B: Cow 3603.

Date: 14.4.42.

Age: 14 years 1 month.

Weight: 1,350 lb.

RESEARCHES INTO STERILITY OF COWS IN SOUTH AFRICA.



FIG. 19.—Group B: Cow 3607.

Date: 14.4.42.
Age: 14 years 1 month.
Weight: 850 lb.

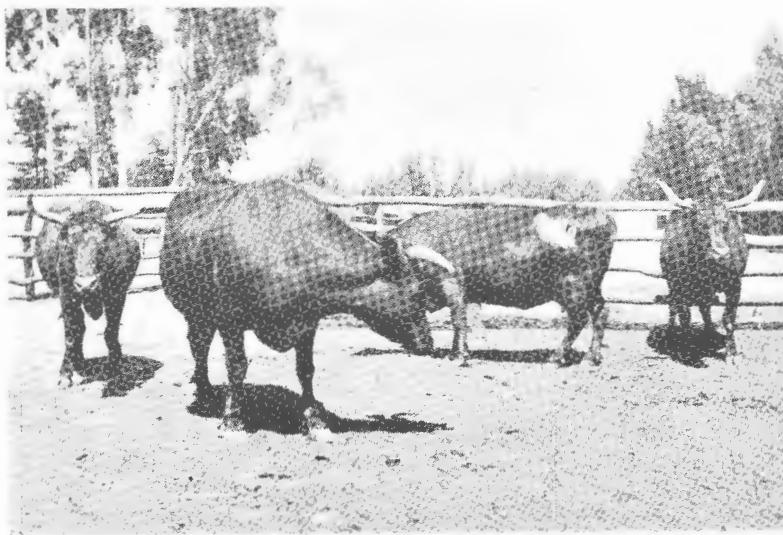


FIG. 20.—Group C: Cows 3617, 3614, 3620, 3619.

Date: 14.4.42.
Ages: 14 years 1 month.
Weights: 1,125, 1,252, 1,280, 861 lb.



FIG. 21.—Group C: Cow 3619.
Date 14.2.42.
Age: 14 years 1 month.
Weight: 861 lb.

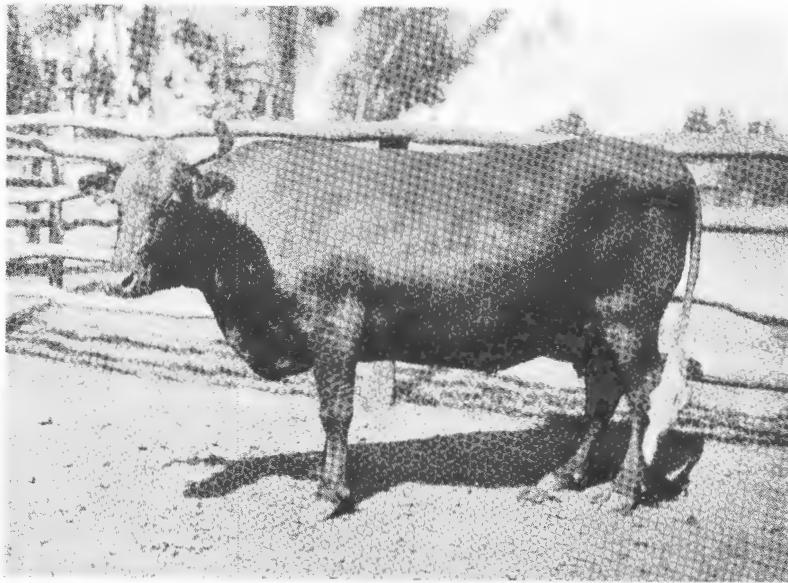


FIG. 22.—Group C: Cow 3620.
Date: 14.4.42.
Age: 14 years 1 month.
Weight: 1,280 lb.



FIG. 23.—Group A: Cow 3598.

Date: 8.11.42.
Age: 14 years 8 months.
Weight: 940 lb.

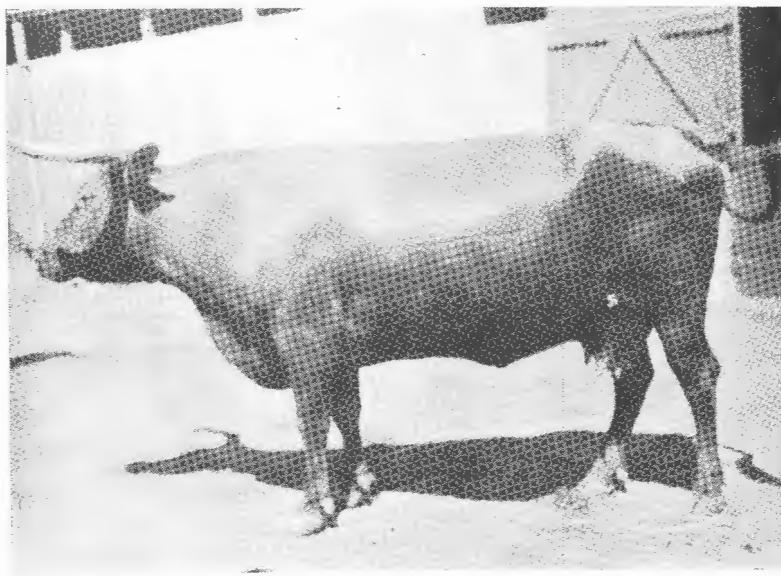


FIG. 24.—Group A: Cow 3599.

Date: 8.11.42.
Age: 14 years 8 months.
Weight: 1,151 lb.

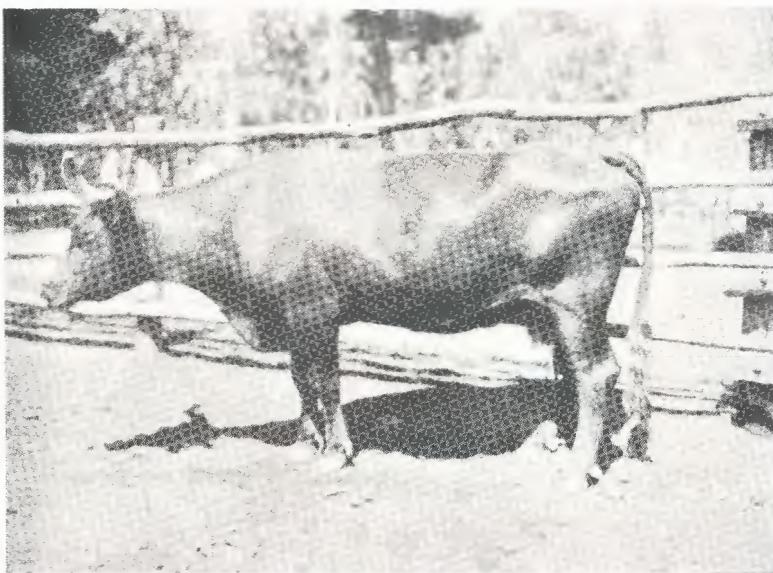


FIG. 25.—Group C: Cow 3617.

Date: 8.11.42.
Age: 14 years 8 months.
Weight: 1,030 lb.

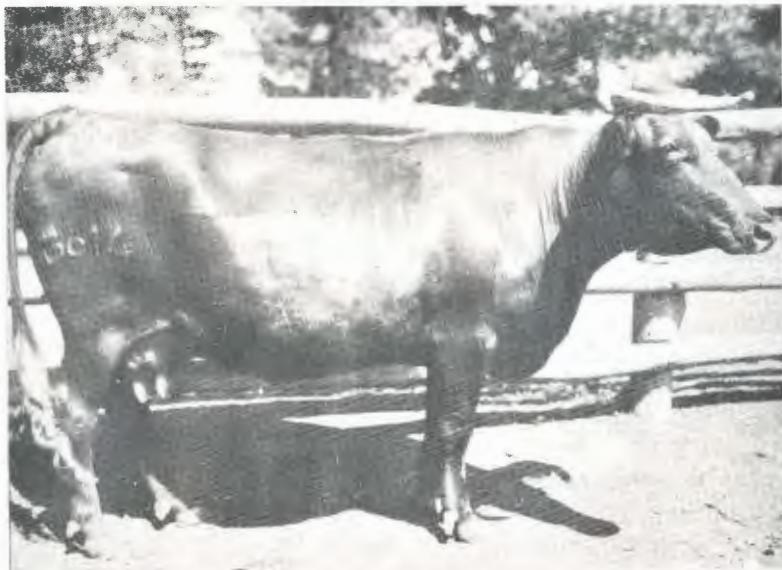


FIG. 26.—Group C: Cow 3614.

Date: 8.11.42.
Age: 14 years 8 months.
Weight: 1,102 lb.