

	13/11/36.	15/12/36.	15/1/37.	16/2/37.	17/3/37.	16/4/37.
<i>Lot 4: 9 Ewes, 9 Lambs.</i>						
Ewe—						
No. 630	150	142	121	125	117	108
No. 632	138	144	121	121	131	125
*No. 634	118	106	90	88	85	88
No. 636	138	152	133	130	139	128
*No. 638	128	111	92	93	93	99
No. 640	118	104	Missing	..	..	..
*No. 642	93	87	76	88	92	93
No. 644	86	79	86	Missing	..	..
*No. 646	89	83	68	69	80	81
Average weight ..	117.5	112	98.4	102	105.3	103.1
Lamb—						
No. 631	15	21	Dead	..	..	..
No. 633	37	52	66	63	60	60
†No. 635	24	29	20	Dead	..	..
No. 637	35	53	62	71	73	70
†No. 639	19	21	25	27	30	31
†No. 641	25	32	37	43	42	47
†No. 643	31	33	32	28	Dead	..
No. 645	17	Dead	..	..	..	..
No. 647	22	29	28	31	32	35
Average weight ..	25	33.7	38.6	43.8	47.4	48.6

* Dosed on 15/1/37, 16/2/37, 17/3/37, and 16/4/37 with 30 c.c. cobalt owing to their showing signs of weakening.

† Dosed on 15/1/37, 16/2/37, 17/3/37, and 16/4/37 with 15 c.c. cobalt owing to their showing signs of weakening.

DISCUSSION.

The first two groups of ewes did well, and were at the last weighing in splendid condition. Their lambs also put on weight, and, except for the unaccountable death of lamb 619 after the first weighing, are in good order.

The third group, where monthly dosing was carried out, did not do nearly so well. One ewe died, but not from bush sickness, while the lambs put on weight slowly. This group is intermediate in appearance between the first two and the last.

The fourth group did badly, two ewes and four lambs dying. Others, which were getting extremely weak, were dosed with cobalt to save their lives. These are marked in the table. In appearance the group is very poor, and if cobalt had not been given the majority would have died.

The experiment has shown that cobalt is efficacious in preventing bush sickness in the Arohena district if given at regular intervals of once or twice a week. From previous work on elimination of the metal carried out by Askew and Josland, the optimum period for drenching has been shown to be twice a week, but with the amount given in this trial dosing once a week was quite sufficient. Dosing once a month was tried out because of the fact that some farmers have been giving large doses of 500 mg. and more at long intervals. Group three shows that the practice of dosing at intervals of a month is not sufficient to keep lambs growing at an optimum, although they remain healthy.