

A Note on the Development of Incisor Teeth as an Indication of Age in Rahmani Sheep

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IN TOTAL, 2123 mouth examination of 450 Rahmani sheep of known age were carried out during a period of five months. All milk incisors erupted when the lamb was four weeks old. Permanent pinchers, first intermediates, second intermediates, and corners appeared 4.5, 5, 4, and 4.5 months respectively later than those of the commonly known indices. The two toothed Rahmani sheep usually judged as one year old should be considered as 1.5 - 2.0 years old.

The development and condition of incisor teeth are a common guide to estimating age in sheep. Teeth examination is by far the most reliable guide to a sheep's age unless it is branded, tattooed or otherwise marked with its year of birth. There is much variation, genetic and non-genetic, in the precise age at which each pair of incisors erupt (Owen, 1976).

This work was being conducted to point out the relationship between teeth development and age in Rahmani sheep.

Material and Methods

The whole flock (450 heads) of El-Serw Experimental Farm, Animal Production Research Institute, was used in the present investigation. Mouth examination was carried out biweekly for lambs and monthly for adult sheep. A total number of 2123 mouth examinations were available for sheep of known age. The lambing season usually started by the first of October. This study was carried out during the period from November 1975 to April 1976 so that the sheep were in all cases midway between the time at which they should show changes in the teeth.

Management of the flock was as that described by Ashmawy *et al.* (1979).

It should be mentioned that the two central incisor teeth were called pinchers (P), the adjoining ones, first intermediates (F), the third pair, second intermediates (S) and the outer ones, corners (C) as suggested by Ensminger (1970).

TABLE 1. Development of milk incisors in Rahmani lambs.

Age (week)	No of lambs	% of lambs showing:							
		Pinchers (P)	1st. inter-mediate (F)	2nd inter-mediate (S)	Corners (C)	P+F	P+S	F+S	P+F+S+C
At birth	50	26	—	4	—	—	28	1	—
1	50	4	—	—	—	—	70	—	24
2	46	—	—	—	—	—	4	—	73
3	46	—	—	—	—	—	2	—	42
4	46	—	—	—	—	—	—	—	13
5-8	46	—	—	—	—	—	—	—	100

TABLE 2. Development of permanent incisors in adult Rahmani sheep.

Age (month)	No of sheep	% of Milk pinchers	% of Permanent			
			P	P+F	P+F+S	P+F+S+C
2-13	687	100.00	3.33			
14	90	96.67	26.88			
15	93	73.12	46.67			
16	105	53.33	63.64			
17	33	36.36	77.50			
18	40	22.50	100.0			
19-21	70	—	75.76	24.24		
22	33	—	60.00	40.00		
23	25	—	35.71	64.29		
24	14	—	25.00	75.00		
25	8	—	—	100.00		
26-27	18	—	—	90.0	10.0	
28	40	—	—	75.76	24.24	
29	66	—	—	49.23	50.77	
30	65	—	—	41.54	58.46	
31	65	—	—	34.37	65.63	
32	32	—	—	—	75.62	
32	—	—	—	—	100.00	
34	—	—	—	—	93.33	
35	15	—	—	—	91.89	6.67
36	37	—	—	—	66.13	8.11
37	62	—	—	—	50.00	33.87
38	62	—	—	—	37.74	50.00
39	53	—	—	—	—	62.26
40-42	—	—	—	—	33.33	
43	3	—	—	—	30.77	66.67
44	13	—	—	—	25.0	69.23
45	20	—	—	—	10.81	75.0
46	37	—	—	—	3.03	89.19
47	33	—	—	—	—	96.97
48	20	—	—	—	—	100.0
Total NC	1839	—	—	—	—	—

Results and Discussion

The ages of lambs in weeks at which each pair of the milk incisors appeared are given in Table 1. Most of the lambs (87%) had full set of eight milk incisors at four weeks of age. It seems that Rahmani lambs cut their temporary incisors earlier than other breeds as it was claimed by Fraser and Stamp (1961) and Owen (1976) that lambs have all their milk incisors at 8 and at 4-17 weeks of age, respectively.

Permanent incisors appeared for the first time when sheep were 14 months of age (Table 2). All milk incisors were replaced by permanent ones when the age of 19 months had been reached. Three months later (at 22 months of age) the first intermediates began to erupt. All sheep had pinchers and first intermediates at the age of 26 months. Between 28-34 months of age replacement of the second intermediates took place. The permanent corners appeared first at the age of 35 months and all sheep had a full mouth when they were 48 months (Table 2). It could be observed that the ages at which permanent incisors erupted in 75-100% of the examined sheep was 18 to 21 months for the pinchers, 25 to 27 months for the first intermediates, 33-35 months for the second intermediates and 45 to 48 months for the corners. It could be inferred from data given by different authors (Diggins and Bundy, 1958; Ensminger, 1970; Kammlade 1947; Owen, 1976 and Ryder and Stephenson, 1968) that the ages at which incisors erupt are 12 to 18 months for pinchers, 18 to 24 months for the first intermediates, 24 to 36 months for the second intermediates and 36 to 48 months for the corners. Comparing the age mid-interval at which each pair of incisors appeared in the present study with those of the stated figures, it showed that replacement of pinchers, first intermediates, second intermediates and corners in the studied Rahmani sheep takes place at 4.5, 5, 4 and 4.5 months respectively later than those of the commonly known indices.

It should be pointed out that the most striking feature of the present findings in the differences between the actually found and the currently assumed age of the two toothed sheep. Such a sheep should be judged as 1.5 to 2.0 years old and not as one year old.

It is suggested, however, to conduct further studies on local breeds of sheep and under different localities and conditions.

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عجالة عن تطور القواطع السببية كمقياس للعمر في أغنام الرحماني

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كلية الزراعة ، جامعة القاهرة و معهد بحوث الانتاج الحيوانى

أجرى ٢١٢٣ فحص للأسنان لعدد ٤٥٠ رأس من أغنام الرحماني المعروفة
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٥٤ ، ٥٥ ، ٥٦ - ٥٧ ، ٥٨ ، ٥٩ شهورا على التوالي عما هو شائع .

تؤكد الدراسة ضرورة أن يعتبر عمر الغنمة الرحماني التي كسرت زوجا
واحدا (الشنايا) هو ١٥ - ٢٠ سنة بدلا من عمر سنة المتعارف عليه .