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Teeth-Mouth Condition and Longevity of 14-year-old F-1 (Brahman x Hereford) cows

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Longevity and productivity of F-1 (Brahman x Hereford or Brahman x Angus) cows have been well documented in many long-term research experimentations, including that by Roher et al, 1988 and Riley et al., 2001. In addition to pregnancy status, visual observations of udder-teat characteristics and mouth-teeth status provide opportunities for cow retention decisions in the herd. Determining cow age using dentition and condition of mouth-teeth may be further explored by several state Extension publications (Pace and Wakeman, 1983; Karisch, 2019; Wells, 2020).

At the Texas A&M AgriLife Research and Extension Center at Overton, pasture research using F-1 (Hereford x Brahman, Brahman x Hereford, Angus x Brahman) cows was initiated in 1969 and continues to date. This forage x animal research project uses both fall- and winter-calving F-1 cows to evaluate forage productivity and persistence, forage nutritive value, and cow-calf responses to various stocking rates on pasture. One of the major components of the forage-animal relationship under grazing conditions is periodic soil sampling of pastures to assess fertilizer regimens on long-term nutrient cycling and pasture sustainability. All cattle records are archived on our database, BeefSys, that has complete records for each cow for time of calving to time of calf harvest.

An illustration of the longevity of F-1 cows used in stocking rate experiments is that of the status of mouth and teeth after several years in pasture research. Table 1 shows the average lifetime production characteristics of 14-year-old F-1 (Brahman x Hereford) cows at time of dispersing from the project. This cow herd averaged 12 calves each, with calves averaging 83 pounds at birth (Simmental bulls), and 667 pounds at 263 days of age (weaning). The average weight of cows at weaning was 1192 lb, with a 56% calf:cow weight at weaning. At time of dispersing, this fall-calving cow herd was 97% pregnant.

Table 1. Production traits of 14-year-old F-1 (Brahman x Hereford) cows used in stocking rate experiments.

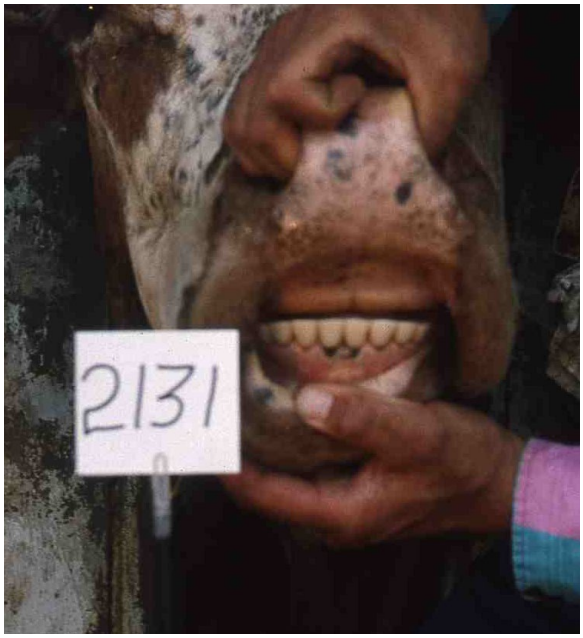
Trait	Total/Average
Cow age	14
Number of calves	12
Calf birth wt (lb)	83
Calf age at wean (d)	263
Calf wean wt (lb)	667
Cow wt at wean (lb)	1192
Calf:cow wt at wean	56%
Calf wean wt (lb) at cow age 14	673
Pregnant at age 14	97%
Calving season	Fall

Table 2. Description of mouth-teeth of 14-year-old F-1 (Brahman x Hereford) cows.

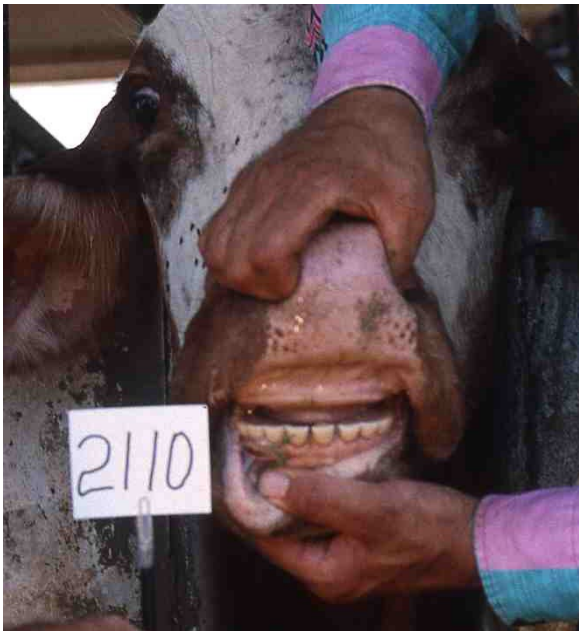
Description	No. teeth missing	Percent of cows
Solid	0	6
Short & Solid	0	42
Short & Solid	1	22
Short & Solid	2	8
Short & Solid	3	6
Short & Solid	4	3
Broken Mouth	3	6
Smooth Mouth	all but 1	6

Table 2 shows the description of the mouth-teeth scores for these 14-year-old cows. There were 48% of these cows that were not missing any teeth, and they were scored as “solid” (6%) and “short and solid” (42%). There were 22% of the cows that were “short and solid” mouthed with only 1 missing tooth. Thus, 70% of these cows had 0 to 1 missing tooth at age 14. In this group, 6% had a “broken mouth” with 3 missing teeth, and 6% had a “smooth mouth” with only 1 tooth remaining.

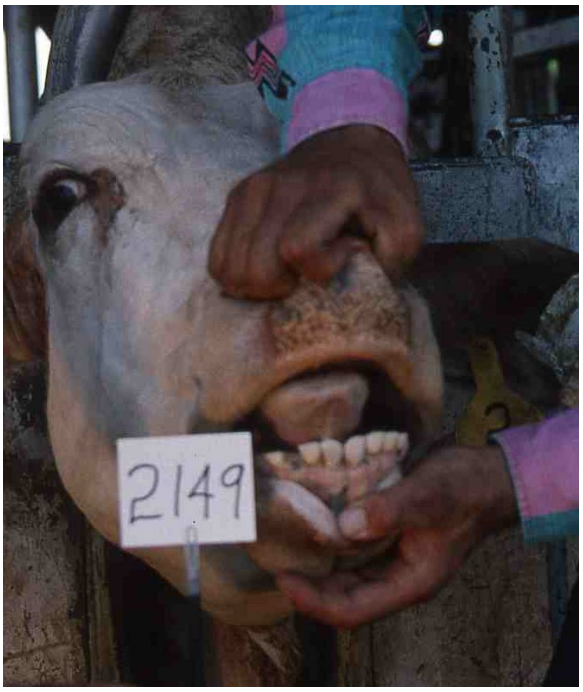
The following photos provide illustrated examples of the mouth conditions and teeth scores for these 14-year-old cows.



Solid, no missing teeth



Short and solid, no missing teeth

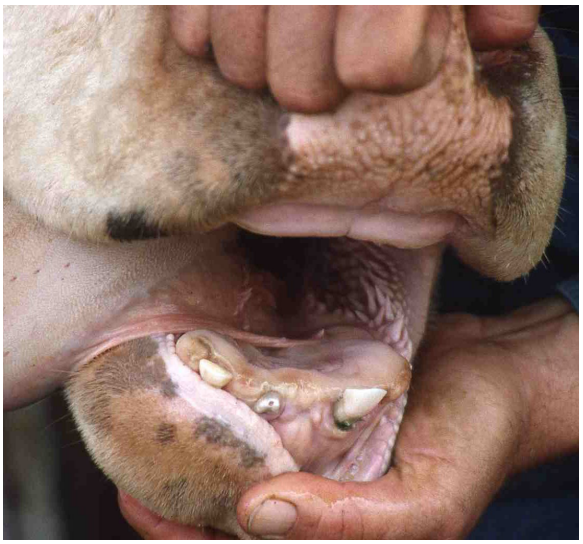
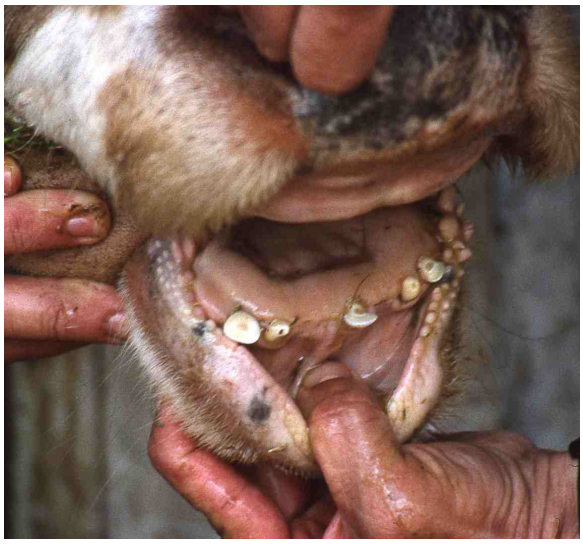


Short and solid, 1 missing tooth

Short and solid, 2 missing teeth

Short and solid, 3 missing teeth

Short and solid, 4 missing teeth

Broken mouth, 3 missing teeth

Smooth mouth

Ackowledgements

The dedication to observation of pasture and cattle conditions, persistence in maintaining good animal husbandry protocols, and attention to details of forage-animal data collection in cow-calf and stocker research were major contributions to pasture research by Mr. M. J. Florence and Mr. Joel Kerby (whose hands you see in the above photos).

Literature Citations

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