

may be some inbreeding but I don't think it would be significant and the reason I say that is because of the apparent good health of very very small populations of sheep which have existed since white man first came to the Kootenays. Brule Creek supports no more than 15 sheep and when W. C. Hornaday and company hunted in there in 1908, I believe, and killed two rams, they made an estimate of the population which they said was very small. If you go back into the old B. C. Game Commission Reports on the Elk River Game Reserve, you will see that the population has remained fairly constant and yet I saw four Class '4' rams, and the ewes have anywhere from a 40 to 60 per cent lamb crop, so I think that inbreeding in nature is just practically unheard of. If anyone has any information to the contrary I sure would like to hear it.

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ABSTRACT OF  
NON-TROPHY OR EWE SEASONS IN ALBERTA

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The concept of shooting female sheep in Alberta was first considered seriously in 1956; i.e., the same year that we instigated the protective 3/4 curl law for rams. The inspiration for ewe seasons was primarily due to the die-off in the early 1950's of the protected Tarryall herd in Colorado. I understand at that time the idea of ewe seasons did not go over too well in the United States. Here in Alberta, hunters were in fact ready to hang the man (who still wishes to remain anonymous) for even suggesting the idea of shooting female sheep. Fortunately for us and unfortunately for British Columbia, there was another severe die-off of bighorns closer to home in the mid-sixties. As a result, in 1966 we were able to initiate our first "ewe" season.

Outside of the National Parks we have between 4,000 and 5,000 bighorns. The average legal ram kill is around 150 and the average non-trophy or "ewe" kill is about 110. Thus, the average annual sheep harvest since 1967 has been around 260 animals or about 2% of the available bighorn population. Obviously, the total effect of hunting has been negligible, and our efforts in management will have to be directed to more intensive removal of ewes. At present we have 400-600 applicants for 300-350 non-trophy permits.

In a study area near Nordegg we have a bighorn herd of about 100 head, and at last count there were 33 adult ewes. This particular herd produces between 20-25 lambs per year. This fall we plan to remove about a dozen adult ewes in order to compare the survival of the orphaned

lambs with unorphaned lambs. In other words, it is possible that we are taking two sheep for every adult ewe recorded and our "ewe" seasons may be more effective than we think.

There is a fair amount of controversy over shooting ewes with lambs from an aesthetic point of view. Indications are that shooting an adult ewe with a lamb at heel is not a very pleasant experience, since the lamb tends to stay around in full view of the hunter at the kill site. An alternative proposal would be to encourage the harvest of non-productive ewes; i.e., primarily yearlings and 2 year olds. In any case, the emotional hang-up is a management problem that we still have to face. Since trapping and transplanting sheep is costly and really not necessary in Alberta, I don't know how else we can sustain healthy bighorn populations without "ewe" seasons.