



Evaluating the Extent of Coyote Depredation on Illinois Cattle and Sheep Operations

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Canis latrans (coyote) depredation on livestock is well documented in the Western United States, yet little research on the subject has occurred in the Midwestern United States or more specifically, Illinois. Bovine (cattle) and Ovine (sheep) producers in Illinois were surveyed in regards to operation characteristics, observation of predators, and the relationship between predators and livestock on their operations. Responses (n=685) were analyzed using logistical regression analysis. Historical observation of depredation was found to be significant for the past one year ($P=0.0002$). Comparison of depredation by operation characteristics resulted in number of sheep ($P=0.0080$) and calving area (acres) ($P=0.0343$) being significant determinants of depredation observation. Postnatal management in terms of hours before witnessing livestock postpartum was found to be a significant determinant of depredation observation for the time period between 13-24 hours postpartum ($P=0.01$). Sport hunting was found to significantly increase the probability of not observing coyotes ($P=0.004$) and bobcats ($P=0.007$) on a given operation. Disposition of wild game carcasses was found to be a significant deterrent of depredation when burning ($P=0.03$) was the chosen method of carcass disposal. Predator control was shown to significantly increase the probability of not observing depredation by 79.4% ($P=0.001$). Night penning of livestock ($P=0.02$) was shown to be the most effective husbandry method of reducing the probability of depredation observation. The current study concluded that coyote depredation is occurring throughout Illinois and further research in regards to the methods most appropriate in controlling depredation is warranted.

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