

Wolf Predation Index

Estimating the Value of Beef Cattle Lost to Wolf Predation on a Per AUM Basis

FACT: In 2010 wolves accounted for 30% of all cattle losses by predators in Idaho

SOURCE: <https://downloads.usda.library.cornell.edu/usda-esmis/files/vh53wv75j/xp68kk00g/v405sd14m/CattDeath-05-12-2011.pdf#page=8>

FACT: In 2010 the total value of all cattle and calves lost to predation in Idaho was \$3,324,000 (\$1,837,000 for cattle + \$1,487 for calves)

SOURCE: <https://downloads.usda.library.cornell.edu/usda-esmis/files/vh53wv75j/xp68kk00g/v405sd14m/CattDeath-05-12-2011.pdf#page=7>

FACT: In 2010, the value of all cattle in Idaho lost to wolves was \$997,200

SOURCE: 2010 wolf predation percentage x 2010 total value of all cattle lost to predation (30% x \$3,324,000 = \$997,200)

ASSUMPTION: Given the location and management practices of dairy cattle, wolf predation of dairy cattle is negligible, IDL assumes the total beef cattle value lost to wolves in 2010 is \$997,200.

FACT: In 2010, there were 2,180,000 total cattle number of beef cattle (head) in Idaho

SOURCE: <https://quickstats.nass.usda.gov/results/F4D99D10-6636-3624-ABB4-6FA7CE087AF0>

ASSUMPTION: Convert 2,180,000 head of cattle to AUMs by multiplying the head count by .83, which equals 1,809,400 AUMs

FACT: In 2010, there were 260,711 AUMs on Idaho endowment land

SOURCE: 2010 IDL Annual Report, Page 29

ASSUMPTION: For 2010, an estimated 14.4% of all beef cattle AUMs in Idaho were attributable to endowment land: (260,711 endowment AUMs / 1,809,000 total beef cattle AUMs = 14.4%)

IN CONCLUSION: For 2010, the estimated per AUM value of beef cattle in Idaho lost to wolf predation on endowment land was: $14.4\% \times \$997,200 = \$140,716.8 / 260,711 \text{ AUMs} = \0.54 per AUM . Indexed forward to 2020 using the USDA 2021 Agricultural Prices Received Index for Meat Animals, the per AUM beef cattle loss to wolf predation on Idaho endowment land is estimated to be \$.48.