

SHOOTING AS A BLUE JAY DEPREDATION MANAGEMENT TECHNIQUE IN NATIVE PECAN GROVES

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ABSTRACT: We conducted a 4-year project in southcentral Oklahoma native pecan (*Carya illinoensis*) groves to evaluate the effectiveness of shooting blue jays (*Cyanocitta cristata*) to reduce pecan losses. We monitored blue jay abundance by time-area counts and bird nut damage using ground plots in 5, 4.3-ha study areas during the fall damage periods of 1989-1992. In 1991 and 1992 we applied shooting to 3 of these areas. A mean of 16.3 blue jays/ha was shot at a mean cost (shotgun shells and labor) of \$18.65/ha over the 2 years. The break-even savings level was 0.5 kg of pecan nuts saved per blue jay for both years. Blue jay numbers were significantly ($P = 0.045$) reduced in the areas where the shooting treatment was applied. Comparison of the 1991 and 1992 mean to the 1989 and 1990 mean shows that bird nut damage increased an average of 137% in the untreated areas and decreased an average of 38% in the treated areas. This difference was not significant ($P = 0.160$); however, if the difference was real, nut damage savings averaged \$34.70/ha.

Pro. East. Wild. Damage Control Conf. 6:58.1995.