

NON-LETHAL HARASSMENT TO DISPERSE CANADA GEESE IN WINTER WHEAT FIELDS

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Abstract: Canada goose (*Branta canadensis*) populations have increased dramatically in the Atlantic Flyway during the last 50 years, primarily due to large increases in nonmigratory, resident Canada goose populations. Among the associated problems with the increase in goose numbers is grazing and trampling damage to forage crops like winter wheat. Reducing or eliminating goose presence on winter wheat fields is valuable to farmers because goose damage can result in a loss of yield and increased soil erosion. The objective of our study was to evaluate the efficacy of 3, non-lethal harassment techniques (flagging, propane cannon, and combination of flagging and propane cannon) to reduce or eliminate goose presence on New Jersey winter wheat fields. The study was conducted between December 2000 and January 2001. We measured the efficacy of each treatment based on the height of winter wheat within randomly placed 1-m² quadrants, as compared to a control field. We also evaluated the cost of each management option. All non-lethal treatments were statistically different ($P = 0.05$) relative to the control field in terms of increased wheat height. The cost for purchasing and installing the treatments ranged from \$6/ac for the flags to \$111/ac for the propane cannon. We recommend the use of a propane cannon, where practical, as a first resort to reduce goose grazing of winter wheat. Flagging, however, can be a cost-effective non-lethal management option to reduce goose damage to winter wheat.

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