

# SURVEY OF BLACK BEAR DEPREDATION IN AGRICULTURE IN MASSACHUSETTS

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**ABSTRACT:** Black bear (*Ursus americanus*) depredation in agriculture has become an increasing concern in Massachusetts. Complaints from apiarists, corn growers, and livestock producers have increased 167% during the period 1980 to 1990, but whether this increase truly represents more depredation, response of bears to other factors, or simply better reporting/record keeping has not been determined. The bear population in Massachusetts from 1984 to 1989 increased 50% to approximately 700-750 animals statewide. Subsequent estimates (1995) have placed the bear population around 1,200 animals. Concurrent encroachment of human development into prime bear habitat also increased contact between bears and humans. During years when natural foods (primarily hard and soft mast) are limited, bears search for alternate foods in nearby agricultural and suburban areas and may damage hives, crops, or livestock. All these factors enhance the potential for conflicts that could jeopardize human-bear co-existence.

A self-administered mail-back questionnaire, distributed to 1,598 producers of corn (n = 207), bees/honey (n = 546), livestock/dairy (n = 481), or unspecified agricultural commodities (n = 364) throughout Massachusetts in late December 1990, was used to collect data on 1) demographic characteristics of Massachusetts agricultural producers, 2) bear distribution, 3) type, extent, and economic impact of bear depredation, 4) deterrents used and ratings of their effectiveness, and 5) producer tolerances of and attitudes about black bears in Massachusetts.

Both corn and livestock producers considered the impact of black bears on the production of commodities statewide to be tolerable whereas beekeepers rated the impact as unreasonable. However, most (70%) producers stated that individually they would not tolerate any level of damage or only light levels. This seems to indicate that tolerance of bear depredation decreases dramatically when producers are affected directly. Yet, producers believed that bears have value, should remain an integral part of our natural heritage, and, even though they can be an inconvenience, could be tolerated. If producers can learn how to deter problem bears, they may be more likely to maintain their positive attitude and learn to co-exist with bears.

Results from this study and others suggest the following needs 1) effective education programs for agricultural producers; 2) strengthened working relations between producers and the state fish and wildlife agency, 3) incorporation of producers' suggestions into bear management planning, 4) verification of the existence and location of reported damage before controls are implemented, 5) preparation with knowledge of bear deterrent options for individuals who have not yet experienced bear damage, but are located within known bear range, and 6) development of long-term solutions to bear depredations for different commodity groups.

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