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Test Of An Alternative Rodent Control Method: CHF Fertilizer/Small Mammal Repellant

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Small mammals, primarily rodents, are an indirect threat to aviation safety because they are the prey base for numerous species of raptors. An abundant rodent population at an airport can attract and sustain a significant number of hazardous raptors in the airport vicinity. The use of chemical rodenticides has been shown to reduce rodent populations but may not be practical because of environmental concerns, thus alternative methods are needed. A test of a small mammal repellant, CHF, was conducted at Burke Lakefront Airport in Cleveland, OH. CHF, manufactured by Coolworks BV, is a pelleted, composted 1:1 mixture of mink/fox manure and peat. Coolworks BV recommends a broadcast application of CHF at a rate of 250 kilograms per hectare (223 pounds per acre) with repeated applications of 1 to 3 times per year or as needed. The study area consisted of three 3 acre treatment blocks and three 3 acre control blocks. The target rodent species was the meadow vole (*Microtus pennsylvanicus*); however, all rodents captured [which included deer mice (*Peromyscus maniculatus*), house mice (*Mus musculus*) and Norway rats (*Rattus norvegicus*)] were included in the analyses. A pre-application trapping index was conducted on each block in early October 2007 immediately prior to the first CHF application. Two weeks following the first application we observed a 51% decrease in meadow voles and a 31% decrease in all rodents from the treated blocks while there was a 55% increase in meadow voles and a 37% increase in all rodent species from the control blocks. Another index conducted one month after a second product application compared to the pretreatment indices

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revealed an 85% decrease in meadow voles and an 83% decrease in all rodents from the treated blocks while there was a 44% increase in meadow voles and an 83% increase in all rodent species from the control blocks. The preliminary results of the fall/winter tests show potential, indicating that CHF may have a place in an integrated management system.

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