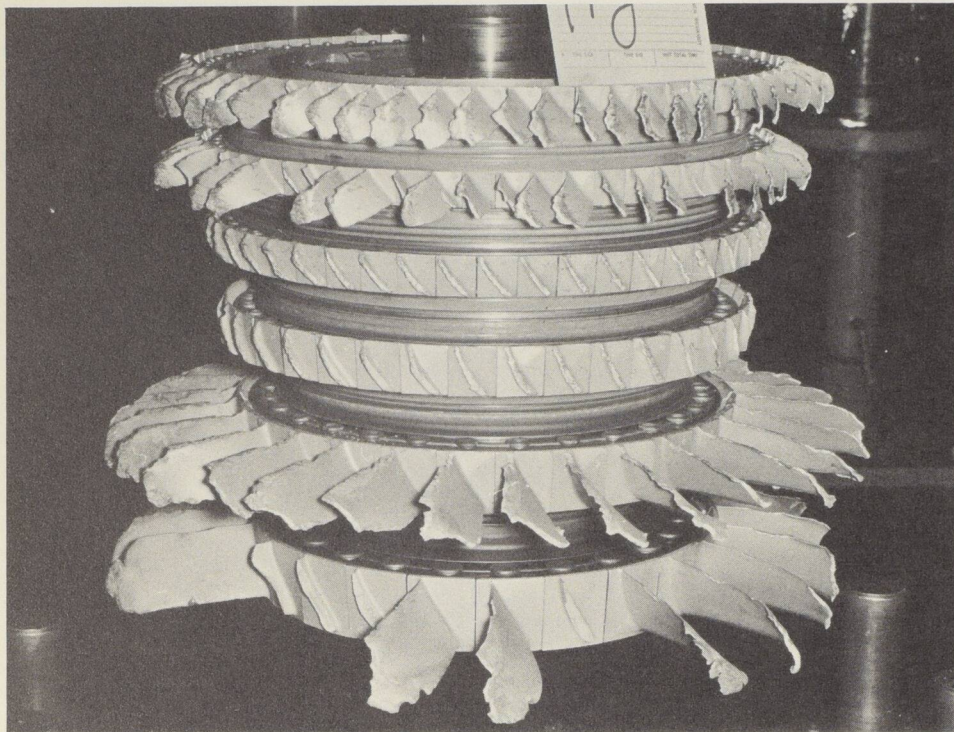


The garden's prime pest may be useful as Ground cover for airports



Destruction caused to the compressor rotors of a turboprop aircraft engine which ingested two pigeons.

Deux pigeons en vol ont été aspirés par le turbopropulseur d'un avion: vue du rotor du compresseur.

Canada's major commercial airlines have lost \$2,000,000 in the last five years as a direct result of more than 1,000 bird-aircraft collisions. The Canadian armed forces in the period from October, 1964, to October, 1967, lost from the same cause, eight and probably two more jet fighters valued at more than \$1,000,000 apiece.

For these reasons a variety of methods are in use or are being tested to reduce the threat that birds present to jet aircraft during take-off and landing and in flight. Tape-recorded bird distress calls, noisy shotgun blasts and other methods are being used to keep birds away from airports. Radar and photography are being used to track bird migration and local bird movements to ascertain normal flight patterns, and aircraft design is being examined to implement possible strengthening to reduce damage. Scientists are also investigating the projection of microwaves far enough ahead of an aircraft to disorient birds so that they fall clear of the flight path.

One of the more successful approaches to reduce the danger of bird-aircraft collisions is to make the airport

environment unattractive to birds. Removal of such food-producing areas as ponds, dumps, brushy areas and agricultural crops from airports and their vicinity, where about 80 per cent of bird strikes on civil aircraft occur, are typical examples of such measures.

In an effort to make airports even more unattractive to birds, the Associate Committee on Bird Hazards to Aircraft of the National Research Council of Canada in 1968 awarded a contract to Acadia University, Wolfville, N.S., for a four-year research program. Under the contract, university scientists will attempt to find vegetative ground covers non-attractive to birds to replace grass commonly grown on the non-paved portions of airports.

The research project is being directed by Prof. P. J. Austin-Smith of the Department of Biology of Acadia University assisted by Ross Hall, with Dr. H. F. Lewis, a member of the Associate Committee, as consultant.

The Committee and Acadia University undertook to assess six kinds of plants as potential replacements for grass. These studies will provide some of the answers to such questions as:

How attractive is each plant to birds as compared with grass? Do the plants have fruits or vegetative parts attractive to birds? Do they support invertebrate communities which attract birds? What are the best means of planting and maintaining these plants? What is the relative aggressiveness of each plant to possibly invading species of grass, other weeds and woody vegetation? Will the plants prevent erosion, have traffic durability and pose no fire hazard? And finally, what are the best possible plants or plant combinations for the major soils and climates to be found on different eastern Canadian airports?

The candidate plants were chosen because each possesses several characteristics essential as a replacement for grass. Most spread rapidly, but have low or decumbent growth, with small or inconspicuous flowers. All are adaptable to open conditions, tolerant of a fairly wide range of soil and climatic conditions and able to survive the Canadian winter. Most had been observed growing in scattered stands on or near airfields in eastern Canada.