Subject of Study

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Last April members of one of the national bird-study organizations held their annual meeting in Tucson. This was an appropriate location, as more than 450 bird species have been found in Arizona, and the Tucson area has an abundance of bird life.

Birds have also become a major topic of conversation among Arizona farmers, principally because a few of the many species inhabiting this state are abundant and are invertebrate eaters of lettuce, melons, grain sorghums, safflower, grapes, and several other crops.

Flocks invade vegetable fields at the time the seedlings begin to emerge, and likewise converge on ripening grain. In recent years, cattle feedlot owners have been plagued by huge bird concentrations which annually consume and contaminate many tons of feed. The role of birds in transmitting disease is now receiving increased attention.

No News to Farmers

This short summary of the over-all "Arizona bird problem" reveals nothing new to those farmers who have experienced heavy and repeated bird attacks. Farmers want and need answers to specific problems in the form of effective and economical control measures. To find these answers, it is necessary for farmers and ornithologists (bird specialists) to work together. Such an approach will require that both farmers and ornithologists take a broad view of their joint problem.

Bird specialists have an interest in investigations which will help conserve endangered species. They are justified in this, as many of our rarer and less adaptive species are hard pressed to survive the usual gamut of natural calamities. It is equally understandable that the major concern of farmers is the other side of the coin—the sheaf of wheat rather than the eagle's head.

Bureau Blends Both Views

A viewpoint fair to all interests can be found in the policies and programs of the Bureau of Sport Fisheries and Wildlife, the federal agency which manages and protects most of our birds under the Migratory Bird Treaty Acts and other acts of Congress. Its personnel find many opportunities to turn the interests of various groups into a common effort.

Floyd Thompson, Federal Game Management Agent for Arizona, presented at the Tucson bird convention last April a detailed, forceful paper on bird depredations in Arizona. He concluded that ornithologists must recognize immediately that bird problems do exist, and be prepared to assist in the solution of problems affecting the economy of the land.

Arizona's agricultural industry should know about the bureau's bird control policy and its research programs now in progress. The intent of those principles on which bird control research and operations are based might be stated in three words: SAFE, PRUDENT, LAWFUL. Lethal measures present various degrees of hazards to human beings and to other animal life, so other methods of protection are preferable wherever effective. Control actions must be humane and must not contribute to, or result in, extermination of any native bird species. The bureau does not recommend or engage in control activities contrary to any state or local law, ordinance, or regulation.

Studying, Testing, Reporting

The Branch of Wildlife Research directs bird control research on species protected and unprotected by federal law. It has responsibility for developing and testing control techniques and reporting findings from these studies. Control techniques are defined as ways of preventing or minimizing the undesirable activities of harmful, depredating or nuisance birds. Research includes (a) ecological and life history studies, (b) crop and habitat manipulation, (c) repellents, and (d) where necessary, local population reduction of destructive species.

The Wildlife Research Center at Denver, serving the western states, includes a staff of biologists and chemists who make full-time studies on a wide variety of bird-damage control methods. Every farmer's dream is a push button gadget that will keep the birds out of his fields forever. For his benefit (as well as for people using jet aircraft) an electronic technician with a vanload of equipment soon will be at Denver searching, we might say, for the right buttons to push.

A Look at Harmful Species

A biologist from the Denver Center has been located in Arizona for the past year, in quarters provided by the University of Arizona Agricultural Experiment Station at its Mesa Branch Station. Initially his studies are mainly ecological, but long-term studies are now concentrating on bird depredations most harmful, or potentially so, to the state's economy.

Major attention is on the starling and English sparrow—foreign imports—which feed on cattle rations, lettuce, grains, and grapes. Arizona's farmers, vegetable growers, and cattle feeders will be kept informed of the progress of this work.

STARLINGS ARE ubiquitous guests in the cattle feeding areas of the Salt River Valley. At top, waiting on the utility lines for a chance to move in; center, resting along feedlot shade; and bottom, taking off when the photographer gets too close.

Mr. Royall is a research scientist in the federal Bureau of Sports Fisheries and Wildlife. Currently he is stationed at the Mesa Experiment Station, assigned to study bird depredations in Arizona.