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AUDITORY REPELLENTS

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In the area around the Lake Erie marshes, in 1936 and '37, two auditory repellent methods were used in controlling blackbird damage in field corn. The first consisted of a 55-gallon drum bolted to the floor bed of a pick-up truck. This drum was then beat constantly with a piece of lead pipe about five feet long.

The second method consisted of putting a cut-off on the exhaust system of the same pick-up truck. By turning the key off and on, loud reports from the exhaust system of the truck usually effectively removed blackbirds in the immediate cornfield.

The forties and fifties saw some evolution taking place in the area of auditory repellents. Shotguns and fireworks were being increasingly used. By the late 1950's, much to the horror of many, growers were erecting towers at about tassle height in the corn field, and employing teen-age or pre-teen-age boys to sit in those towers during the period of peak bird activity and fire .22 caliber bullets at tassle height through the standing fields of corn.

And in the late fifties, the first two-shot shotgun shells went on the market. Those were in vogue in the early sixties and are still being used with particular kinds of bird control work.

At about the same time that shot gun shells were becoming the principal tool, we went through a period, about in the mid-fifties, where there was a lot of interest in fireworks and slow-burning fuse ropes with M-80-type fire-crackers inserted at various points and suspended over a 55-gallon drum. The idea, of course, of all of these methods, is to enable the farmer to protect his crop and still accomplish some other task at the same time.

From these methods we went to the carbide gun, or the carbide exploder. Although freeing the man for his other work, he still needed to spend a great deal of time maintaining the exploder. Then came acetylene gas as the power source of the exploder, and subsequently LP gas, which then brings us up through the sixties, and really to the present, because the exploder is still a very widely used tool as an auditory repellent method.

Again, back in the sixties, we saw the development of recorded distress and alarm cries as another auditory method of attempting to remove birds. These had their place and still have their place in bird control work.

More recently, we have seen the development of yet another auditory method. This method, the Av-alarm, makes use of continuously altering frequency bursts which, according to the literature, “are designed to modify the behavior of the pests by limiting access to sensory information.”

We have come through quite an evolution in auditory devices, and they still have an extremely valuable role to play. They are obviously not the total answer to the problem; but they are an answer.

One of the newest methods makes use of a chemical which elicits an auditory response on the part of the bird itself. This chemical is “Avitrol” and will be discussed later in today's program.

Question: What are some of the problems in using auditory bird control?

Answer: Some states have enacted legislation to ban the use of certain auditory means or methods within certain districts or areas of human habitation.

Question: What type of sound seems to work best?

Answer: The quality of the sound makes a great deal of difference. An alarm sound may be more effective than a distress sound. As an example, in Columbus there is a bird roost in the middle of an upper-class city block neighborhood on the northwest side. I was asked by an engineer to give a hand. To more or less pacify him, I loaned him an old tape of starling distress cries and some old equipment that we used 15 years ago. It turned out that the birds did not respond to any great degree to the distress cry on the three-minute continuous loop tape; but every time the splice went through the tape it made a great deal of static and a louder sound, and that seemed to be the thing that scared the starlings.

Question: Are there any geographic limitations to the use of auditory repellents?

Answer: The topography of the area to be protected has a tremendous effect on the application of any particular auditory device. We've seen cases where we could protect as much as ten acres with one LP gas exploder; and in other situations, not get protection on two acres using the same exploder, largely because of the lay of the land, the forest covering the adjacent area, and so on. One additional thing to be added is that if the damaging species has established a feeding pattern in a particularly vulnerable crop, they are much harder to get out than if we had initiated the auditory repellent techniques prior to the development of the feeding pattern. This is the biggest problem we have found. It is very difficult for an extension worker to convince our Ohio corn growers who possess exploders that they ought to start the devices when the corn is in the late blister stage rather than waiting until they see the first flock of blackbirds begin to feed in the field.

I think that in summary we might say that we have seen an executive branch in Washington that has exercised things on the people of this country that we never dreamed of, like impoundment of funds and so on. Maybe we can get the executive branch to impose a moratorium on all damaging species for ten years, stopping them to let us, who are doing research, try to catch up, rather than our constantly throwing on the firing line the next tool that happens to come up on the horizon without being able to do all the sophisticated behavioral studies and things that we would like to do.