EFFECTIVENESS OF A CROW TRAP IN INDIA

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Crows are numerous in India. They serve as scavengers and as consumers of weed seeds and insects, but most observers agree that the harm they do far exceeds the good. Crows are voracious eaters of fruits, vegetables and partially ripened maize grain, sorghums and millets. According to Allen (1931) crows require, at least, half their own weight of food each day merely to exist, and they can easily consume food equivalent to their full weight. Smaller adult crows weigh approximately one-half pound each. Assuming that one-half of the four ounces of food taken per day per crow consists of material which man could eat, in the course of a year, a single crow would appropriate 45 pounds of human food.

The author was confronted with the crow problem while participating in the maize improvement program of the Allahadbad Agricultural Institute in north-central India. To have valuable breeding material destroyed when the crop is almost ready to harvest is serious indeed. Employment of a watchman to scare crows away has only temporary value. The crows learn to feed on the unguarded side of the field until the watchman approaches. What is needed is a method of crow destruction.

Construction of Crow Trap

A trap described by Kalmbach (1939) had proved successful in the United States and in Australia where the trap had its origin. The workshop of the Agricultural Institute made a trap patterned after the one described by Kalmbach. It consisted of a frame made of 1- by 3-inch boards, a ground dimension of 10 by 10 feet, and a height of 6 feet at the corners. From the corners the top sloped toward the middle to a height of 4.5 feet from the ground (Fig. 1). The frame was covered with fine-mesh chicken wire except a strip about 18 inches wide running across the middle of the top. This 18-inch space had wooden slats nailed across it at 6-inch intervals. These slats had long spike nails driven through them, the sharp ends extending downward.

Materials necessary for construction of the trap at the Allahabad Agricultural Institute cost approximately $12.50.

Operation of the Trap in India

The trap should be placed within one hundred feet of a tree, high tension wire, a tall building, or other structures on which crows may perch. It must be baited with an attractive food material which will entice crows.

Four crows were used in an experiment to determine their food preferences. Different kinds of feed were exposed in flat quart containers so that crows, confined in a cage, could choose. The amount consumed (Table 1) was determined by weigh-

FIG. 1.—Crow trap from above, showing ladder-like strip across top. There is no wire netting over ladder which constitutes a door through which crows may enter. Long spike nails extend downward from rungs to make exit difficult.

ing the feed remaining and calculating the difference.

Although wheat flour proved to be preferred over the other feeds the small amount eaten indicated that dry grain or meal was not attractive enough to entice crows into a trap. Crow numbers at the piggery where garbage from the Institute cafeteria was being fed indicated that garbage might be a desirable bait. Accordingly, we placed fresh garbage which contained a little waste meat, bones, potatoes and other vegetables on the ground in the middle of the trap. Seven days after the trap was so baited several crows entered the trap.

The excited behavior of the outside crows over their imprisoned fellows showed us the importance of leaving decoy crows in the trap. Subsequently, we always left one as a decoy. When the decoy escaped a few days always passed before crows were caught. In order to maintain a decoy at all times, two crows were left in the trap.

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India has two kinds of crows in large numbers. One is the common grey-necked house crow, *Corvus splendens*, Vieillot, and the other, the Indian jungle crow, *Corvus macrorhynchos*, Wagler. The larger jungle crow dominates the common house crow which gives ground readily to its superior companion.

Study of the data in Table 2 suggests that the species of crow caught is influenced by that of the decoy. It also shows that the grey-necked crow will venture into a cage containing attractive food even though his meal will be shared by the antagonistic jungle species.

TABLE 1.—Grain Consumed by Adult Crows in Confinement When Different Foods were Available (grams).

Kind of food	3.5 hours	1 hour	4 hours	Total 8.5 hours
Wheat flour	25.7	14.4	19.8	59.9
Grain mixture	26.7	5.3	3.0	35.0
Wheat bran	7.0	1.4	0.4	8.8
Crushed maize	7.0	0.6	0.2	7.8
Crushed gram (*Cicer arietinum*)	3.7	0.2	0.3	4.2

There were approximately two grey-necked crows to each jungle crow where the tests were made.

The first crow entered the trap on September 1, 1954. The number of crows trapped in the next eight months is presented in Table 3. The number of crows varied widely from month to month, mainly because of difference in care given the trap. Regular attention increased the catch; fresh bait and water in the trap and timely removal of crows were important factors.

Crows visited the trap in largest numbers in the early morning and in the late afternoon. When possible, crows were removed from the trap at 8:30 a.m. and about 4:45 p.m. Crows were collected in a burlap bag and later drowned.

Since the author left India, the crow trap has been in charge of Guru Din Singh, Farm Manager of the Allahabad Agricultural Institute. From August 16, 1955, to February 16, 1956, Mr. Singh caught 1,446, an average of 241 per month. He also made a careful comparison between the larger 10- by 10-foot trap and a 7- by 7-foot trap constructed on the same pattern. These two traps were stationed side by side and baited in the same way. During the six months the large trap caught 1,446 crows, and the smaller one caught only 520, less than half as many. The difference in catch was approximately the same month by month, indicating that large size is an important factor in the successful operation of this type of trap.

TABLE 2.—Relation Between Kind of Crows Used as Decoys and Kinds Trapped.

Crow used as decoys	Number of crows caught		Ratio of jungle to grey-necked crows
	jungle	grey-necked	
Jungle	46	19	1 : 0.4
Grey-necked	86	215	1 : 2.5
Both jungle and grey-necked	7	17	1 : 2.4
Total	139	251	1 : 1.8

TABLE 3.—Number of Crows Trapped in Nine Months, 1954-1955.

Month	Number taken
September	217
October	71
November	318
December	127
January	167
February	149
March	86
April	140
May	24
Total	1299
Average	144

SUMMARY

Crows are numerous in India. They cause economic loss mainly by: a) eating human food; b) destroying seed of new crops in plant breeding plots; and c) entailing the guarding of crops from their depredations.

An Australian cage-trap was effective in catching crows, averaging 144 crows per month in one 9-month period and 241 per month in a 6-month period. An attractive bait and a trapped crow or two in the trap were found essential to induce crows to come into the trap. A trap having ground dimensions of 10 by 10 feet proved about twice as effective as one that was 7 by 7 feet in size.

LITERATURE CITED

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