TECHNICAL NOTE

AN IMPROVED METHOD OF HOUSING PIGEONS¹

The problems associated with housing pigeons have received little attention considering the wide use the species has in behavioral research. Pigeons, unlike rats or monkeys, generate a considerable amount of dust from both feathers and excreta. Normal shedding of feathers and considerable moulting when room temperatures rise add to the problem. Under free feeding, pigeons tend to scatter less-preferred grains. When wire cages are used, dust, feathers, grain, and excreta are propelled about the room by the conditioned wing-flapping that develops during feeding periods.

Commercially available electrostatic air purifiers have been found to be inadequate in reducing the dust because they quickly become clogged with feathers. Since many colony rooms are not originally intended for such use, the amount of air exchange in the room cannot be increased sufficiently to resolve the dust problem.

As an alternative to daily cleaning, which can become expensive in both time and supplies, the problem can be largely eliminated by restricting the amount of ventilation in a cage without adversely affecting the health of the birds.

Figure 1 shows part of a six-cage unit. Each cage interior is 12 in. (30.48 cm) wide, 14 in. (35.56 cm) high and 15 in. (38.1 cm) deep. While the cages are not especially large, both adult male White Carneaux and homing pigeons from the Palmetto Pigeon Plant have been satisfactorily housed for several years in a similar unit with identical cage dimensions. The air vents located at A are screened with a 2-in. (5.08-cm) wide strip of 0.25-in. (0.64-cm) square hardware cloth to trap feathers. A hinged door running the length of the unit at B prevents the expulsion of excreta, yet provides easy access to individual excreta trays (not shown) without removing the birds. The excreta trays consist of Polyethelene lined industrial wadding (Kimberly Clarke type K-33) mounted on a 0.5-in. (1.27-cm) square hardware cloth frame. The wadding, which tends to curl at the edges when wet, is held in place by up-right prongs at each corner of the frame. A 1-in. (2.54-cm) square hardware cloth floor (C) located 2 in. (5.08 cm) above the trays allows excreta to drop through and provides a relatively clean, dry floor for the birds. These floors rest on two stainless steel rods 0.125 in. (0.32 cm) in diameter, 11 in. (27.94 cm) apart, which

pass through the length of the entire unit. A third rod midway between the other two but above the hardware cloth prevents any movement of the floor. By removing this third rod all floors can be easily extracted for cleaning.

Square, one-quart Polyethelene bottles (Dynalab Corp., cat. no. 890 at \$14.00 per 24) at D fit flush against the front of each cage. Two-inch (5.08-cm) diameter holes cut in the bottles with centers 4 in. (10.2 cm) above the bottom of the bottles match similar holes (E) in the 0.25 in. (0.64 cm) hardboard front panels. The removable bottles are held in place by stainless steel rods 0.125 in. (0.32 cm) in diameter and rest on a 0.5 in. (1.27 cm) ledge at the bottom of the hardboard front panel. The wide-mouth threaded bottle caps allow feed, grit, and water to be replenished without removing the bottles. Grit and seed on the floor have been effectively eliminated with these bottles. Experience with the type of food and water units illustrated by Bullock, Roberts, and Bitterman (1961) has shown that seed and grit are scattered and wasted.

A 0.25 in. (0.64 cm) thick Plexiglas strip running the length of the cage units at F provides light and allows easy observation of the birds. Small hinged doors 8 in. (20.32 cm) deep at G provide access to the birds and decrease the chances of a bird escaping when the door is opened. Larger doors and cages in an earlier unit led to greater difficulty in extracting birds.

Fig. 1. Section of six-cage unit.

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The cages are painted with high gloss white enamel both inside and outside to facilitate cleaning and to reflect light. A second unit still in use consists of two sets of six cages back to back mounted on a stand. The present unit of six is less cumbersome and has been mounted flush against a wall. The bottle and excreta tray design has been adapted for a 24-cage stand-up unit for bluejays with considerable success.

The basic unit is constructed of 0.75 in. (1.9 cm) plywood. The cost of materials for a six-cage unit, not including the bottles, did not exceed \$40.00.

REFERENCES

- Bullock, D. H., Roberts, W. A., and Bitterman, M. E. Techniques of housing and maintaining a large pigeon colony. *Journal of the Experimental Analysis of Behavior*, 1961, 4, 285-286.

T. T. HIROTA
University of Windsor

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