

results were obtained during the second laying year, again slightly better results for the water pits, but without significance: 146.0 against 135.5 eggs in survival production, 127 *vs.* 119.2 eggs in henhoused averages, and 18.3 *vs.* 18.4 percentage mortality.

The most important conclusions derived from this work up to now are that indoor lagoons have definite feasibility as a means of disposal of feces in laying houses without too much work or too many complications, and that their use is good practice to prevent the proliferation of flies that too often become a nuisance to nearby dwellers. More information will be obtained from other trials.

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THE SUPPRESSION OF THE SENSE OF HEARING IN LAYING HENS

Because most commercial poultry laying strains are based on the Leghorn breed, the hens have a highly nervous temperament. It is generally accepted that nervous hens are easily upset by noises, which constitute a stress factor that depresses production in the laying flock. Several practices have been used to control the behavior of layers—music and tranquilizers for example, to improve their productive performance. The practice of induced deafness has been suggested, but not tried in a controlled experiment to our knowledge.

Looking into the possibilities posed by this problem, a small experiment was conducted by this Station, using De Kalb pullets maintained in individual cages. Twenty-four pullets with perforated tympana were compared with 48 normal pullets under a randomized block design. An accepted management for individual cage systems was used during a 336-day period, from September 1965 to August 1966. The following results were obtained:

<i>Performance factors</i>	<i>Deaf birds</i>	<i>Normal birds</i>
Survival egg production.....	237.6	242.1
Henhoused egg production.....	232.5	212.9
Henhoused production, 2-ounce adjusted.....	250.4 ¹	216.3
Percentage mortality.....	12.4	18.8
Egg weight (ounces per dozen).....	25.2	24.9

Even though the treated birds had a lower rate of laying, they had a lower mortality that resulted in a higher henhoused average, and they laid larger eggs also. But the differences were not significant until the three characteristics, egg size, egg number, and mortality, were combined in

¹Superior at a 5-percent probability level of statistical significance.

2-ounce, egg-adjusted, henhoused averages. This suggests that the better viability and egg size of the deaf birds combined to counteract the disadvantage in egg number. No significance was obtained in feed consumption and feed conversion.

Even though no definite conclusions can be derived from this work, and it must be considered as preliminary in scope, there remains the possibility that wider differences might be obtained under conditions of greater stress as to noise effects than those of this trial, with multiple numbers of hens per pen in colony cages or on the floor, for example.

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