

PROTOCOL FOR
MONSANTO COMPANY
CHICKEN TOXICITY, REPRODUCTION AND RESIDUE STUDY
ON AROCLOR

The object of the study will be to investigate the general toxic effects of the test material on young adult male and female chickens with special emphasis upon hatchability of eggs and viability of offspring. In addition, samples of meat and eggs will be analyzed for test material residues (either by Monsanto or by Bio-Test).

Sixteen male and 80 female 12-week old white Leghorn chickens will be selected for the study. These animals will be equally divided into one control and three test groups. The three test groups will correspond to graded dietary levels of the test material. Dosing will begin immediately and will continue through the egg collection period.

The chickens in the control and test groups will be weighed weekly and observations for mortality, reactions and general food disappearance will be made periodically during the study.

As each group begins laying (at 17 to 18 weeks of age), the eggs will be collected daily and egg weights recorded. When the egg weights are consistently between 50 and 60 grams, and at least 20 per cent of the hens are laying, the daily egg production will be collected and placed in an incubator tray. Egg collection will be continued for 28 days from collection

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Day One or until at least 100 eggs per group are available for hatching.

During the storage period (not to exceed five days for any group of eggs), the eggs will be turned twice daily. The eggs will be placed in an incubator maintained at 99° to 100°F with a wet bulb reading of 85°F.

The egg production for an additional week will be collected for analysis. Total egg production and egg weights will be recorded.

At the end of the egg collection period, one-half of the chickens in each group will be sacrificed, defeathered and quick-frozen. The carcasses and the eggs retained for analysis will be shipped to Monsanto or will be retained for analysis at Bio-Test.

The remaining chickens will be placed on a 30-day recovery regimen during which time the test material will be removed from the test diets. Eggs will be collected once each week. At the end of this period, the remaining chickens will be sacrificed and handled in the same manner as those at the end of the test feeding period. The carcasses and eggs will again be retained for analysis.

The chicks from the first generation will be observed for 30 days post-hatching.

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