REPORT TO

MONSANTO COMPANY

TOXICITY, REPRODUCTION AND RESIDUE STUDY ON
AROCLOR 1242, LOT #AK-255
AROCLOR 1254, LOT #AK-38
AROCLOR 1260, LOT #AK-3
IN WHITE LEGHORN CHICKENS

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IBT NO. J7300

I. Introduction

At the request of Monsanto Company, a toxicity, reproduction and residue study on Aroclor 1242, Lot #AK-255, Aroclor 1254, Lot #AK-38 and Aroclor 1260, Lot #AK-3 in white Leghorn chickens was initiated. This report presents the results of the investigation conducted at Wedge's Creek Research Farm Division, Industrial BIO-TEST Laboratories, Inc.

II. Summary

White Leghorn chickens were fed Aroclor 1242, Aroclor 1254 or Aroclor 1260 at 1, 10 or 100 ppm in the diet. Effects on the chickens as well as on egg production, hatchability of the eggs and physical characteristics of the eggs were determined. These effects were as follows:

A. Body Weight

The body weights of males fed Aroclor 1242 at 10 or 100 ppm and the body weights of males and females fed Aroclor 1254 at 100 ppm were slightly lower than the weights of control chickens.

B. Food Consumption

The chickens fed Aroclor 1242 at 100 ppm or Aroclor 1254 at 100 ppm ate less than those fed the control diet.

C. Mortality and Reactions

About the same number of birds died in all groups, including controls. These animals exhibited anorexia and became progressively weaker, until death.

D. Pathology

The birds which died showed evidence of malnutrition and extensive growths on the kidneys, gonads, liver or heart. Most of the birds which were sacrificed at the end of the study did not show abnormal gross changes; however some of those fed Aroclor 1254 at 100 ppm showed changes in the heart, kidneys and ovaries.

E. Egg Production

Egg production in hens fed Aroclor 1242 at 100 ppm or Aroclor 1254 at 100 ppm was much lower than the egg production of the control group.

F. Hatchability of Eggs

There was poor hatchability of eggs from hens fed Aroclor 1242 at 10 ppm. None of the eggs hatched from hens fed Aroclor 1242 at 100 ppm or Aroclor 1254 at 100 ppm. Eggs from hens fed Aroclor 1242 at 10 or 100 ppm, that did not hatch had a large number of embryos in the 1 to 3 cm size.

G. Physical Characteristics of Eggs

There were no significant differences in specific gravity among eggs from treated or from control hens. The egg shells, however, from hens fed Aroclor 1242 at 10 or 100 ppm or fed Aroclor 1254 at 100 ppm were not as thick as the shells of eggs from hens fed the control diet.

H. Conclusions

Therefore the ingestion of Aroclor 1242 at 1 ppm, Aroclor 1254 at 10 or 100 ppm or Aroclor 1260 at 1, 10 or 100 ppm caused no apparent effects on the mature chickens or on their eggs, including hatchability and physical characteristics of the eggs. However, the

chickens fed Aroclor 1242 at 10 or 100 ppm or Aroclor 1254 at 100 ppm did not produce as many eggs as the chickens fed the control diet. The eggs from these three groups of chickens had thin shells and did not hatch well after incubation.

Respectfully submitted,

INDUSTRIAL BIO-TEST LABORATORIES, INC.

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