

E. F. Wheeler

April 8, 1969

Aroclor Degradation in Soil

M. J. Wagner  
H. S. Bergen  
R. E. Keller  
Scott Tucker

W. R. Richard

*Recall production*

Marsh Wagner has told me that several Aroclors were applied to soil in test plots at the University of Florida, Gainesboro on the 28th of June, 1939. The application was to determine possible termitic proofing value of the Aroclors. Marsh believes that the test plots are still undisturbed and that he can locate them from plot maps which he has in his files.

Aroclors 1242, 1248 and 1254 were mixed in test soil (1 cubic foot per plot) at two rates of application and in replicate spots. In addition there were additional plots with these Aroclors mixed with penta.

Additionally Aroclor 5442 was applied at one rate of application.

Marsh had reasons to look at some of these sample plots in June of 1963 and recalls that in some instances there was still visual evidence of the presence of Aroclor.

I believe we should consider asking Marsh to look into the possibility of obtaining samples of these plots for measurement of loss or "degradation".

I never would have suspected that we might come across such a situation where we may be able to obtain data on actual aging of Aroclors in soil. Thirty years of exposure might be much more valuable than any accelerated test that could be devised.

Elmer P. Wheeler

CS



TRAN 008733

Monsanto

FROM (NAME & LOCATION): E. S. Tucker - R&D Laboratories - 1700 So. Second St.

DATE June 24, 1969

cc W. R. Richard - GO

SUBJECT MONTHLY SUMMARY - AROCLOR WILDLIFE  
MAY, 1969 - ANALYTICAL STUDIES

REFERENCE

TO : R. E. Keller  
Research 1

Analysis of the Biotest chicken tissues has been completed. The objectives of this study were as follows:

- to establish the validity of the analytical procedures developed for Aroclor analysis.
- to determine if the electron capture chromatograms of chlorinated naphthalenes and selected pesticides extracted from tissues resembled those of Aroclors.
- to determine if there was any significant changes in the isomer distribution of Aroclor extracted from tissues with respect to that feed.
- to obtain a rough fix on the amount of Aroclor held by the various tissues.

These objectives have been accomplished. A more detailed report is being prepared and will be issued shortly.

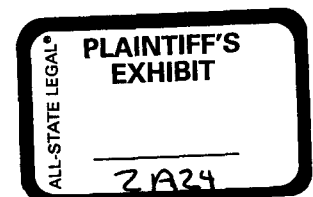
The analytical methods for the analysis of Aroclors in water, soil, and sediment have been completed (Analytical Chemistry Method No. 69-7). Arrangements have also been made with Anniston and Krumrich people to begin sampling of the Aroclor production areas. The analysis of these samples will be carried out at South Second Street.

The investigation of the nitration clean up procedures of Risebrough and Widmark have been completed. A memo is being prepared.

One hundred and thirty-two water samples and an equal number of trout and bluegill fingerlings have been received from Biotest for residue analysis. These are a part of the 96 hour fish toxicity studies currently being carried out.

- .. Forty-five Aroclor treated soil samples, from a Florida test plot, have been provided by the Agricultural Division. The Aroclor was placed in these plots in 1938. We will attempt to determine the degradation, if any, which has occurred in the past 30 years.

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R. E. Keller  
June 24, 1969  
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The Beroza dehalogenation-hydrogenation experiments with Aroclor have been delayed. Our second gas chromatograph will now be used to check the feasibility of 5460 analysis by electron capture gas chromatography.

PCB analysis of the Biotest albino rat tissues has been started. These samples were generated in a Biotest Laboratories' 30-day tissue collection study in albino rats with Aroclors.

E. S. Tucker

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