Monsanto

Dept. of Medicine & Environmental Health — J. G. Ward

February 25, 1981

— J. T. Garrett
G. W. Buttler

Analysis of Biological Samples for tetrachlorodibenzo p-dioxin (TCDD)

TO George Roush, Jr.

At this time facilities capable of analyzing biological samples for the 2,3,7,8 isomer of TCDD are as follows:

1. Prof. Michael L. Gross, Director
Midwest Center for Mass Spectrometry
University of Nebraska - Lincoln
Department of Chemistry
Lincoln, NE. 68588
Tel. (402) 472-3507
(Assistant Director: Phil Lyon)

Dr. Gross has been involved in federal government agency and industry work over a period of four years. His group has analyzed a broad range of biological samples of human origin. Until 1979 his analyses were TCDD specific, but not specific for the 2,3,7,8-isomer. His group now has the capability of quantifying the specific isomers down to ppt levels in suitable matrices. They have experience in spiking and recovery of both C^{12} and C^{13} 2,3,7,8-TCDD.

2. Prof. Thomas Tiernan
The Brehm Laboratory
Wright State University
Fairborn, Ohio
Tel. (513) 873-2202 and 2203 (Joe Solch)

This group was extensively involved with the Air Force on the Agent Orange project for monitoring 2,3,7,8-TCDD in blood. Their expertise is in blood work. The project has been severely reduced since 1979 due to changes in interest within the laboratory.

3. Profs. Rudi Buser & Christopher Rappe
University of Umea
Sweden

World class capability on all types of human samples. Provides samples of all 22 isomers of TCDD in high purity to all workers involved in this analysis. High credibility.

At this time the Ultratrace Laboratory at MRC, Dayton is reluctant to perform analyses on biological samples. Certain exceptions have been made in the past such as research interest projects; e.g., monkey milk

IN-10M (REV. 2/78)

and monkey embryos for PCB's, but there is little interest in providing a commercial or routine analytical service for such samples. Despite this, their technology and expertise appears to have developed to world class level.

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