Monsanto

FROM (NAME & LOCATION) R.A. Lidgett - Ruabon

DATE : 30th January, 1970. cc:

SUBJECT : Visit to Unilever Research, Colworth. (A.P. and R.A.L.)

REFERENCE : RAL/meh

TO : R.A. BAXTER
H.A. VODDEN

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The visit was made at the suggestion of Mr. G. Tilling and was concerned with analytical problems in residue analysis. The question of the source of p.c.b.s was inevitably raised, but not pursued, and it would appear that Unilever have little information on the usuage and quantities produced. The meeting was useful and gave a good overall view of Unilever work on residue analysis.

Continued contact on an analytical basis will be valuable since the programmes of MCL and Unilever on p.c.b. analysis differ sufficiently for exchange of information to be profitable in a practical sense.

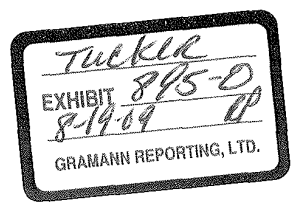
The following points from the meeting are of interest.

1. Unilever have to date concentrated on development of methods for the accurate determination of organo chlorine pesticides and have only recently started to measure p.c.b.'s. They have, however, developed a successful means of separating p.c.b.'s from pesticides and are now able to measure most of the contaminants (including DDE) in animal and fish residues. The method differs from those at present in use in that it is completely non-destructive, i.e. measurement is not made by difference. It will be published shortly, but we have been given full access to the details until then.

2. North Sea herring have been analysed and have p.c.b. contents in the region of 1 ppm. Aqueous samples have not been examined, but this is probably the next stage with the Severn high on the list.

3. Aroclor 1242 has not been observed in extracts and again it appears that Aroclor 1254 or the higher chlorinated biphenyls are being suspected as the main environmental contaminants. Unilever are sure that fish degrade the lower p.c.b.'s (approx. ≥ 4) and therefore the chromatograms do not represent the original p.c.b. but have not yet pointed to 1242 (probably because they have no information on the production and uses of the various Aroclors).

I am convinced that many of the measurements of p.c.b.'s which have so far been identified as Aroclor 1254 (or equivalent) or above are, in fact, degraded Aroclor 1242 and that it is only a matter of time before this conclusion is reached by Unilever and other organisations.



R.A. LIDGETT

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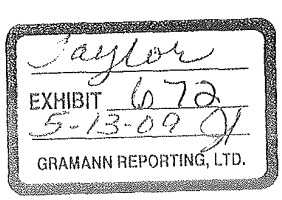

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