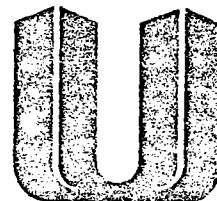


Unilever Research

Colworth/Welwyn Laboratory
Unilever Limited
Colworth House
Sharnbrook Bedford

Telephone Bedford (0234) 55251
Telex 82229



Dr. Scott Tucker,
Monsanto Chemical Company,
South Street,
St. Louis,
Missouri,
U.S.A.

21st July, 1970.
GMT/GW.

Dear Scott,

I've been writing up the last of my notes on my recent trip to N. America and I have been reminded that I promised to send you a summary of what was said on the P.C.B. topic at the A.C.S./C.I.C. meeting in Toronto.

I've listed the various bits of information on an author basis and these are given in the enclosed notes.

I am also reminded that Elmer Wheeler promised to send me a copy of the Monsanto work on the acute and chronic toxicity of P.C.B.'s. Could I now have this information, please?

The post-St. Louis part of my trip became steadily more hectic and it took me a couple of weeks to recover from it after getting home! I very much enjoyed the day which I spent in your company and I hope that we can repeat it some day.

Best wishes,

Yours sincerely,

Geoffrey M. Telling.

DSW 228205

STLCOPCB4053648

1. Bitman (U.S.D.A. Beltsville Md).

Studied estrogenic activity of D.D.T analogues
Found that P.C.B's containing up to 48% chlorine showed
some estrogenic activity.

2. Enos (Perrine Primate Research Lab).

Studied the use of U.V . irradiation at 2537 A ° as a means
of confirming G.L.C findings, i.e. G.L.C. measurements before
and after irradiation.

Solutions of P.C.B's in iso-octane were irradiated at 2537A°
for 20-30 min then examined by G.L.C. No peaks given.
Enos suggested that P.C.B's had been destroyed but in fact this
evidence only indicates that the compounds are no longer capable
of being gas chromatographed. Probable mechanism is one of free
radical formation + polymerisation.

3. Lincoln Reynolds

- (a). Against nitration as a means of separating D.D.E and P.C.B's.
- (b). Uses a technique based on clean up on a florisil column
plus elution with hexane. Cannot separate P.C.B's from
D.D.E, aldrin and heptachlor.
- (c). P.C.B. pattern in wildlife samples rather more like Aroclor 1260
than Aroclor 1254.
- (d). Uses a G.L.C system of QF1/SE30 on Chromasorb W and obtains
14 peaks for Aroclor 1254.
- (e). Semi quantitative method based on comparing areas of peaks 8 ^{and} 10
in standard and sample.

4. Biros (Perrine Primate Research Lab)

Discussed use of G.C.M.S in residue analysis.
Reported that Aroclor 1260 contains the decachloro ion.

5. Grant (F.D.D.Ottawa)

Discussed 60Co gamma irradiation of P.C.B's
Aroclor 1254 gave a 9 peak mixture with his G.L.C. system.
After irradiation peaks 1-3 had increased while peaks 4-9 decreased.
Final peak area was ~ 75% of original.

DSW 228206

G.M.Telling.

GMT/FMW.