CSU

Department of Animal Sciences
303/491-6672

Colorado State University
Fort Collins, Colorado
80523

May 31, 1976

Dr. G. L. Romoser,
Manager
Technical Services Animal Nutrition Products
Monsanto Agr. Products Company
800 North Lindbergh Boulevard
St. Louis, Missouri 63166

Dear Lynn:

Enclosed is a set of results of an undergraduate student project. After you study it, perhaps you would send this along to the person in your company that might want to talk with me about this. I am very much interested in pursuing this finding; hoping to find ways to reduce PCB toxicity problems in the world.

I hope to see you at Poultry Science meeting in Kansas, Lynn.

Sincerely,

Eldon W. Kienholz, Ph.D.
Professor, Nutritionist

EWK:dn

Enclosure

DSW 018953

STLCOPCB4005497

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Report of Eldon W. Kienholz (Professor)
and
Paul L. Williams (Undergraduate Student)

Table 1. The effect of supplemental dietary zinc on PCB toxicity in chicks

ppm PCB	added Zn	4 week old body weight (g)	Gain/Feed (%)	Liver wt. (%)	PCB in fresh liver (ppb)	Liver Fat Fresh wt. (%)
0	0	608	56	2.4	-	-
30	0	619	55	2.6	750	1.8
30	300	604	56	2.9*	1390**	1.5
0	300	615	57	2.4	-	-

PCB as Arochlor 1242; Zn as $ZnSO_4$

*different from 2.4 at 2.5% level of significance
**different from 750 at 1% level of significance

This is the first indication I have that any metals interact with PCB. I do not know what the above data really means; except that there is a definite zinc-PCB interaction for liver and PCB content of liver. This PCB problem is bad enough in our environment, that it seems worth pursuing the zinc-PCB finding to determine if there is any way of decreasing PCB toxicity to animals.

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