June 18, 1964

Mr. James F. Noerr
Route #3
Lewistown, Pennsylvania

Dear Mr. Noerr:

I enclose herewith two copies of the analytical findings on the last series of samples which we received. These are identified in the report in accordance with your labeling, so that there can hardly be any misunderstanding about them. I have put my own interpretation on these results for the record. As you probably know, I have discussed them and other matters in telephone conversations with Mr. DeLong. Your situation, so far as I can see, in view of the information that is now available, is very satisfactory, with respect to the validity of your claim for damage to your cattle and to your harvested crops (the latter, from the aspect of the contamination of their surface while growing, thereby rendering them unfit as feed for your cattle).

I am now sending two bills, one on behalf of the Laboratory for services rendered, including mine as your consultant for a day, and the other for my travelling expense which is an item of personal outlay. It will be a convenience to us, in accounting, if you would make one check payable to Kettering Laboratory, and the other (for expense) to me personally.

Sincerely yours,

Robert A. Kehoe, M.D.

RAK:vr

Encl.

N 5325

Material: Silage or samples of forage

Source: Farm of Mr. James Noerr, Route #3, Lewistown, Pennsylvania

Submitted: June 1, 1964 by Dr. R. A. Kehoe for Mr. James Noerr

Required: Determination of content of lead

Analysis Number	Description	Grams Used for Analysis	Mg. Pb in Grams Used	Pb PPM
64A-2929	Sample A	222.1	0.087	0.39
64A- 2930	Sample B	205.2	0.161	0.78
64A-2931	Sample C	190.0	0.442	2.32
64A-2932	Sample D	165.6	0.115	0.69
64A-2933	Sample E	177.4	0.110	0.62
64A-2934	Sample from field behind house - Home farm - west.	78.7	0.017	0.22
64A-2935	Sample from Dad's farm - east.	75.7	0.068	0.90
64A-2936	Silage actually eaten by cow (?).	139.2	6.20	44.50

From The Kettering Laboratory in the Department of Preventive Medicine and Industrial Health, College of Medicine, University of Cincinnati, Cincinnati, Ohio

INTERPRETATION

The concentration of lead in these samples is expressed in parts per million by weight in the material as supplied, (i.e. not the dry weight, nor the proportion in the ash, but that in the specific material with its water content undisturbed by any procedure of the laboratory). As such, the concentrations in samples A, B, C, D and E, and in the two samples fresh from the two fields, should be multiplied at least four-fold, in order to relate the results to the dry weight of the samples.

The usual range of the concentration of lead in fresh vegetation of the type represented in the first seven of these samples is

under one tenth (1/10) of a part per million. Each specimen of fresh vegetation, here submitted, is high in lead, ranging from twice to more than twenty times (the average being 8.5 times) the upper normal level. There is no doubt, therefore, as to the occurrence of contamination, or as to its potential significance. By reason of the earliness of the season of their growth, the two samples from the two farms cannot be regarded as representative of the facts at the time of harvesting, nor are they representative of the crops throughout these fields. They are, however, clearly indicative of surface contamination.

The result obtained on the sample of silage fed to a cow (in relation to the concentration of lead in the milk of the cow during the period of feeding) speaks for itself. This material is indeed unsuitable for use as food for cattle, since, if fed steadily to cattle for some months, it could confidently be expected to induce lead intoxication among them.

Signed: Robert A Kehoe

Robert A. Kehoe, M.D.
Director