methyl compound is more toxic than the tetraethyl compound for laboratory rats.

A recent report (*3*) dealing with the use of Arasan-DDT-treated seed corn (simultaneous with an epsom-salt flush) in a small farm flock of hens has come to our attention. Egg production was observed to decrease rapidly. However, no conclusions were drawn regarding the causative agent. We are aware of no other published information related to the extreme toxicity of Arasan for hens (*4*).

A sample of corn meal obtained from a farm severely affected during these outbreaks contained 470 ppm of TMTD. Fully treated seed corn contains about 630 ppm of TMTD. The corn meal in field rations A and B contained about 35 and 160 ppm of TMTD, respectively. Thus Arasan-treated seed corn could be diluted heavily with nontreated corn and still produce disastrous results. The label on the container of Arasan-SFX used in this study stated: "The use of this seed for food, feed, or oil purposes is not recommended" (*5*).

Because of the hen's rapid reproductive rate (200 to 300 eggs per year), ease of maintenance, and sensitive reproductive mechanism, it would seem to be an ideal subject for toxicologic studies. Certainly, routine growth studies leave much to be desired in the evaluation of potentially toxic substances.

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References and Notes

1. Ghostley Poultry Farm, Anoka, Minn.
2. The percentage composition of the experimental diet was as follows: ground yellow corn 50, wheat bran 10, wheat middlings 10, alfalfa meal 5, meat and bone scraps 7.5, fish meal 2.5, soybean meal 10, bonemeal 3.0, ground limestone 0.75, iodized salt 1.0, feeding oil (300 D-2250 A) 0.6, and $MnSO_4$ 0.025. The following were added per kilogram; riboflavin 2.75 mg and vitamin B_{12} 3.3 μg. Oyster shell was supplied *ad libitum* for all birds.
3. G. J. Cottier, *Auburn Veterinarian* **10**, 115 (1954).
4. This article is paper No. 3295, Scientific Journal Series, Minnesota Agricultural Experiment Station, We wish to express our appreciation to Norman E. Foster, chief chemist, Minneapolis District, Food and Drug Administration, for his cooperation during this study.
5. Arasan-SFX (Du Pont) contains 75 percent tetramethylthiuram disulfide, which is the active fungicidal ingredient in seed treatment.

31 January 1955.

An Application of Statistics

It is commonly stated that one can prove anything by statistics. The mere fact that two variables are significantly correlated by accepted statistical treatment of valid observations does not *ipso facto* prove that the correlation has any biological meaning. In searching for a phenomenon that would illustrate these truisms, I was struck by the fact that months with short names are generally, in the north temperate zone of the continental United States, the warm ones, and those with long names are the cold ones. The short-name months also tend to have more rainfall than the long-name months.

To test whether or not there was a statistically significant correlation between the length of the name of the month and the temperature and precipitation, meteorological data for Chicago, Illinois, were chosen. The data represented the mean monthly temperature and the mean monthly precipitation for that station; the source was *Annual Climatological Summary, 1947*. The statistical procedures employed were taken from F. E. Croxton [*Elementary Statistics with Applications in Medicine* (Prentice-Hall, New York, 1953)]. The regression equation that related the number of letters in the names of the months (Y) and the mean monthly temperature (T) was $Y = 8.46 - 0.047T$. The correlation coefficient was -0.448 ($P = 0.15$). This association was suggestive but not statistically significant. The regression equation that related the number of letters in the names of the months (Y) and the mean monthly precipitation (P) was $Y = 11.92 - 2.10P$. The correlation coefficient was -0.611 ($0.05 < P < 0.025$). This association was significant at the 5-percent level. These associations have proved to be useful teaching examples of what can be done by the application of statistics, for here are significant correlations without *a priori* or *a posteriori* bases.

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10 January 1955.

Note on a Visible Thermocline

On the afternoon of 5 May 1954 I was exploring the reef off Vaiala, slightly more than ½ mi to the east of the harbor of Apia, Upolu, Western Samoa, in search of a good collecting site for the invertebrates I was studying [under a grant from the Bernice P. Bishop Museum in Honolulu]. I was wearing "skin-diving" equipment, a face plate and swim fins.

The day had been very hot and still, and the surface waters over the ½-mi broad fringing reef were extremely warm, actually hot to the body upon entrance. Moreover, this water was so turbid from suspended matter carried down from the hills in a recent storm that the underwater visibility was less than 3 or 4 ft. There was very weak surf on the reef front.

At the reef front I dived down to explore the bottom, about 30 ft deep. As I went down I was able to detect three layers in the water. The hot turbid layer was 4 or 5 ft deep and sharply delimited from the intermediate layer, which was moderately warm and quite clear. Below the intermediate layer, which extended down to about 15 ft, there was a markedly cooler and clearer layer extending to the bottom.

On the completion of my first dive to the bottom I "coasted" back up, allowing the buoyancy of my body to carry me slowly to the surface while I looked at