

Since your letter came in we have given considerable thought to the matter. We may say that we have never contemplated turning out work on this scale and such information as regards to the men and output as we can give you is very largely theoretical. We understand that in the Government Laboratories in Kansas City and Omaha they handle protein work on a very large scale and they would probably be able to furnish fairly accurate information as to costs where a large number of protein tests have to be run off in twenty-four hours. However, the following information may be some guide to you.

We figure that it would require three 8 hour shifts of thirty men and thirty-six boys each to handle the actual work in the laboratory. With a proper layout each of these shifts would be able to handle 800 samples. There would require to be at least two supervisors for each shift. Men to do this class of work would probably have to be paid at the rate of \$6 per day and the boys \$2 per day; the supervisors \$7.50 per day. In addition to this there would require to be two men continually making up and standardizing solutions. The rate of pay for these men would have to be the same as for the supervisors.

This makes a total of approximately \$400 in wages for twenty-four hours and would be equivalent to 17 cents per sample.

In handling the above quantity of work the following chemicals would be used by each of the three shifts in a day:—

Sulphuric acid, 50 pounds.	Boric acid, $\frac{1}{2}$ pound.
Sodium Sulphate, $4\frac{1}{2}$ pounds.	Indicator, $\frac{1}{2}$ gram.
Copper sulphate, $1\frac{1}{2}$ ounces.	Standard acid, $1\frac{1}{2}$ gallons.
Mercuric sulphate, $\frac{1}{4}$ pound.	Distilled water, 15 gallons.
Sodium hydrate, 36 pounds.	Gas for heating.
Sodium sulphide, 1 pound.	

The total cost of chemicals (Winnipeg prices) and gas for heating on the basis of 2,400 samples would be approximately \$272 or 11.3 cents per sample.

Another expense that would have to be considered is breakages of glassware. This might come as high as \$200 per day or approximately 8 cents per sample.

We have assumed that to handle the work a special laboratory with all labour-saving devices available would be necessary. The cost of equipping this laboratory would be in the neighbourhood of \$10,000 and the rent for same would probably be \$1,200 per year.

The office work, etc., in connection with handling 2,400 tests per day could probably be done by six girls at an approximate cost of \$15 per day.

Another factor that would have to be taken into consideration is that the work would be seasonable and probably not last for more than four months in the year. We have only figured on carrying the staff for this period of time. It might be necessary to carry some of them a full year.

Here is one that I missed:—

By Mr. Fansher (Last Mountain):

Q. The cost, according to that letter, would be a little less than 30 cents per sample?—A. Did you take breakages into consideration? I have just one other excerpt to read. This is largely to indicate what they are doing in the United States in connection with this work. This is from the Grain Dealers Journal, Chicago, March 10, 1925.

[John Millar, M.P.]