

May 19, 1944

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Dr. Ellsworth S. Deuel,
Plant Physician,
Harrison Radiator Division,
Lockport, New York.

Dear Dr. Deuel:

I am sorry to have been delayed in replying to your letter of April 26, concerning the numbered blood slides. I have had to be out of town for the past ten days, and this matter had to lie until I returned. I list herewith our findings on the slides, which I judge you will want to compare with results obtained in your own laboratory.

#1	[REDACTED]	2
#2	[REDACTED]	0
#3	Duplicate of #10, same date	
#4	[REDACTED]	30
#5	[REDACTED]	0
#6	[REDACTED]	109
#7	[REDACTED]	0
#8	[REDACTED]	0
#9	[REDACTED]	0
#10	[REDACTED]	8

Your letter did not request the return of the slides, and therefore we are not returning them, unless you specifically request us to do so.

Let me first answer the question with reference to fine stippling. The differentiation between fine and course stippling is, of course, a matter of individual judgment to some degree. Also the question of whether a cell shows fine stippling or none at all, is a matter of judgment. Here, however, the only point that can be set up as a criterion, is the factual ability of the examiner to see definite particles regardless of their size. This undoubtedly is a function of (1) the definitive qualities of the microscope, (2) the accuracy of observation of the examiner. In the final analysis, however, the question is, - Can one see fine stippling? If he can, he records it. If he cannot, he does not record it. That is all that can be done.

With reference to the scaling, I think we can assure you that this is merely a matter of the cleanliness of the slides. There cannot be the slightest trace of any grease from any

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source on the slides. That is to say, they must be chemically clean. We wash ours as we do any other item of chemical glassware, and we are careful to handle them without any contact of the skin with the surface on which blood film is to be put, after the slide is once clean and ready for use. An occasional slide does not behave properly, and under these circumstances we merely discard the smear and make additional ones, until we get satisfactory results. If the slides are handled properly, however, difficulties occur very seldom. As for the other defects of the slides, it seems quite apparent that too much blood is being used to make the individual smear. This is a matter of experience and practice. The amount of blood, that is to say, the size of the drop introduced on to the slide, is the chief factor. This drop must never be big enough to spread too quickly across the surface of contact between the slide on which the smear is to be made and the one used to spread the smear. If by practice one learns the exact size of this drop of blood that is best to use, he will have no further trouble. It is better to have this drop a little small than to have it too large. Practically all of your slides were too thick, with much too small an area within which satisfactory fields could be found.

The stain was weak and somewhat blurred. For this reason we believe that the addition of a little sodium hydroxide (1% solution in alcohol) will improve it. We would advise pouring some of your stain (50 to 100 ml) into a staining jar, adding two drops of the alcoholic hydroxide at a time and trying the stain afterward. This can be done step by step until the stain is found to give entirely satisfactory results. This, we believe, is a much better way of getting a satisfactory result than by attempting to standardize it at a precise pH.

With reference to my advice above on avoidance of contact of the fingers with the surface of the slide, I should perhaps explain what I mean by pointing out that after the slides have been cleaned, they should never be touched, except on their edges.

I trust this will give you a bit of help. If we can assist you further, do not hesitate to ask.

Very truly yours,

Robert A. Kehoe, M. D.

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- # 1 [REDACTED] - 2
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- # 6 [REDACTED] - 109
- # 7 [REDACTED] - 0
- # 8 [REDACTED] - 0
- # 9 [REDACTED]
- # 10 [REDACTED] - 8

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