

November 14th, 1935

Dear Sir,

I understand from Dr Bliss that Professor Zelenákhin has invited him to work in the Institute of Plant Protection in Leningrad, and that his application for a visa to return to the USSR is now under consideration.

Dr Bliss has been working in the Laboratory now for over two years, and I have had a good opportunity of forming a judgment as to his interests, experience and capacity. In these respects his qualifications for such work seem to me wholly exceptional. He has had long practical experience both in pure entomology, including genetics, and in insecticidal research, both under laboratory and under field conditions. Where he is exceptional, however, most particularly, is in his having during this period formed a clear conception of the statistical problems to be faced and solved, if laboratory experiments are to contribute progressively to building up a body of firm and established knowledge for future guidance, and if practical trials are not either to fail

in their object, or to achieve it only with a quite unnecessary wastage in time and money.

During his stay at this Laboratory he has been particularly engaged in developing and applying a system of methods of statistical analysis and tests of significance, which I do not hesitate to say are of fundamental importance. I ought, perhaps, to mention in this connection that I have been for many years in touch with the insecticidal experiments carried out by Dr Tattersfield at Rothamsted, and had a good deal to do also with the attempts made by Professor Gaddum and his associates at the National Institute for Medical Research at Hampstead when he was attempting to systematise the method of biological assay of which that Institution is the centre.

Dr Bliss has tackled the fundamental problems on this subject with a width of view and insight which no statistician of purely mathematical training could be expected to show; he has, in consequence, during his stay here, developed methods appropriate to a much wider range of applications than has hitherto been attempted. This is due, of course, to his persistence in making every aspect of the problem clear to himself, as well as to his experience of the difficulty and ambiguities which arise in the practice of such research. Apart from this aspect of his work, however, I should like to stress my impression

that he is a meticulously careful experimenter, with an imaginative gift which enables him to foresee important developments, and to lay down in advance tests capable of exploring their possibilities.

One of the points which I have for years been in the habit of stressing in regard to the statistical examination of experimental results, and to the statistical design of experimental programmes, is that, without the exercise by this means of laboratory and systematic control, experimentation is liable to be, and has been in a hundred instances, either excessively wasteful, or ineffectual, or sometimes indeed both, through the experimenter failing to use such vast experience as is available ~~to~~ to plan the structure and extent of his programme that it will be fitted to supply the information practically required in its inception.

In saying as much as I have done of Dr. Bliss's qualifications in fundamental research, I should like to stress the importance that such research may have in a programme that is aimed primarily at practical ends.

Yours faithfully

The Consul General
of the USSR
3, Embassy Gardens,