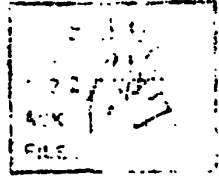


June 11, 1970



Mr. D.J. Wood,
38 Regent's Park Road,
Millbrook,
SOUTHAMPTON SO9 1PE, ENGLAND.

Dear Jeremy,

NITROGEN NUTRITION AND SMOKE COMPOSITION.

Since Bob Wade's return to Canada I have checked to see if any data on nitrogen nutrition and smoke composition have been generated in Canada but nothing seems to have been done. Experiments with nitrogen levels for tobacco from the standpoint of yield and quality of the leaf are rather common but no studies of the smoke from these tobaccos have been undertaken. However field-grown tobacco is available that might suit at least some of your requirements.

I have been in touch with Mr. J.M. Elliot, Delhi Research Station, who tells me that he grew Delhi 34 flue cured tobacco with different nitrogen levels last year and he is repeating the experiment in 1970. Rates of nitrogen being studied are 0, 20 and 48 lbs. per acre. All treatments cured out satisfactorily in 1968. These samples averaged about 1.5%, 1.6% and 2.1% total nitrogen and 2.0%, 2.5% and 3.4% total alkaloids as the applied nitrogen was increased from 0 to 48 lbs. per acre. There are about 40 lbs. of tobacco per plot (a composite of the five plants in proportion to yield) and Mr. Elliot would be pleased to supply the tobacco if the user would provide him with the same amount of time data in return. The plots were replicated four times and he hopes that 10 replicates can be tested separately so that appropriate statistical analysis can be performed. Field quantities are expected from the 1970 experiment and would be made available on the same basis.

I also spoke to Mr. Walter Scott, Harrow Research Station, who has two nitrogen experiments with burley tobacco in the field at present. One concerns the application of 3 rates of supplemental nitrogen (33, 66 and 100 lbs. per acre) in fall or spring in addition to that supplied by 1000 lbs. of 5-10-15, giving a nitrogen application range of 133 lbs. to 190 lbs. per acre.

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The other is an NPK experiment where nitrogen levels vary as follows: 75 lbs., 125 lbs., 175 lbs. and 225 lbs. per acre. Tobacco from both these experiments could be made available for smoke studies, although in the latter experiment perhaps only plots where P and K are held constant would be of interest for smoke studies at the present time. These experiments are replicated four times and about 10 lbs. per plot could be made available to you.

An early decision on your interest in the tobacco from the 1969 fine cured tobacco would be much appreciated by Mr. Elliot.

We will be pleased to have your comments on these samples and perhaps you will let us know if you think we should plan on initiating new nitrogen experiments for flue and burley types in 1971 to produce tobacco for smoke composition studies.

With kind regards,

Yours sincerely,

G. Boswall
G.W. BOSWALL,
RESEARCH ASSOCIATE, AGRICULTURE.

GWS/ja

cc: Mr. S.J. Green

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