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FROM

S. WEBSTER

TO

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LEAF BLENDING

APRIL 26, 1972

ONTARIO CURING EXPERIMENT - 1971 - FLUE VERSUS AIR CURING

Project T-0685

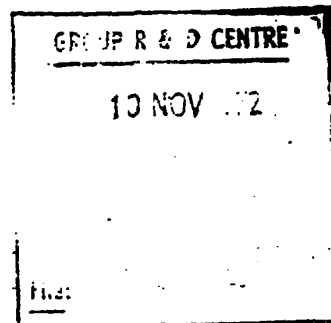
Six plots of regular Virginia tobacco on the Imperial Leaf Tobacco Farm were set aside to produce these experimental tobaccos. The tobacco was identified by priming and the flue-cured portion was cured along with regular tobacco. Air-cured primings were hand tied - 40 leaves per stick and cured in a cigar curing barn. Since the strips were not redried some air drying, especially on the air cured type, was necessary.

Six primings each of air-cured and flue-cured tobacco were forwarded to the laboratory. After blending of the strips within each priming, samples were withdrawn for chemical analyses. Plain and cigarettes of 72 mm and 100.6 ggs were manufactured from each priming.

Strip yields, chemical analysis of strips and smoke analysis data of cigarettes from single primings are given in the attached tables.

Statistical analyses of cigarette smoke results show that there is a significant difference between smoke deliveries of the two curing treatments. Air curing had the effect, on average, of lowering the smoke nicotine and in increasing the T.P.M., tar and water contents.

There was also a significant interaction between the treatment and the smoke deliveries of individual primings. That is air curing altered the smoke delivery (T.P.M.) of priming 3 as compared to priming 1 by 11.2 mg. Flue curing of the same priming showed a change of only 4.1 mg. Similar comparisons of primings 3 versus 6 show a change of only 5.9 mg for air curing while for flue curing the change was 11.3 mg. This may be illustrated on the following graph of T.P.M. delivery plotted against primings.



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