



Imperial Tobacco Limited/Limitée

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*A. Cross et al  
P. Campbell*

July 23, 1979

Dr. L.C.F. Blackman  
G.R. & D.C.  
38 Regent's Park Road  
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Dear Lionel:

I've had a look at those parts of GR & DC Programme July 1 1979 that are particularly concerned with expanded tobacco, especially DIET. It's easy to misinterpret GR & DC's true intentions by simply reading the program outline, so rather than comment on the listed items I shall offer some thoughts which you might like to assess against the programmes.

It seems to me there are several ways of thinking about how to "exploit Product Opportunities arising from incorporation of expanded tobacco."

- 1) To lower product cost by cutting tobacco content. This is an "across the board" approach where a small proportion of expanded tobacco, say up to 10%, could be gradually and profitably introduced to all cigarette designs. At this level, even fairly marked changes in subjective or other properties of the expanded tobacco might be tolerable if a whole market moves simultaneously in this direction.
- 2) As a means of designing around the "inefficiency" of modern cigarettes where very little of the smoke is actually used by the smoker.
- 3) As a new design tool to achieve more acceptable low delivery cigarettes.

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Perhaps the end result of 2) and 3) is identical but both imply a substantial incorporation of expanded tobacco, so the quality requirements for expanded tobacco used in this way are far more stringent. It would appear to me that one could categorize present day expansion processes as below

<u>P r o c e s s</u>	<u>Suitable for Exploitation</u>
W.T.S., ITM Drier )	( Category 1
)	(
B&W High Humidity Drying)-	-(Limited use in category 3
)	(
"Hauni" Process )	(
G-13	Categories 1, 2, 3
DIET	Category 1

The utility of DIET beyond category 1 depends on whether an economic degree of expansion is attainable without undue undesirable change to tobacco in the DIET process. We think of two mechanisms for increasing the filling power of tobacco 1) Volumetric expansion and 2) Stiffening of the strands. It appears to us that the DIET process, if carried out so as to achieve "maximum expansion" goes beyond mechanism (1), into a substantial degree of mechanism (2), and this is accompanied by undesirable changes to the tobacco. These changes include loss of nicotine, lowering of equilibrium moisture content and sugar, and seemingly a decrease in the ability of the tobacco to withstand mechanical degradation. We are not in a position to state what the effect is on subjective properties because as you know, our DIET process tobacco was so degraded we couldn't make it into cigarettes.

B&W's Competitive Brand Report R&D 25 provides a gold mine of insight into how expanded tobacco is now being exploited in the U.S. Additionally there are all kinds of data that might serve to relate cigarette design factors (including use of expanded tobacco) to product properties. The report also portrays either differences in company thinking, or perhaps differences between the properties of commercially available expansion processes. At any rate I find it interesting that American has gone up to 36% incorporation, Lorillard to 19%, Reynolds to 49%, but Philip Morris only to 7%.

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My categorization of DIET is based on the information available to me including what AIRCO says about the process. The key question is whether the evident undesirable changes that occur in DIET are inherent in the process or whether they are simply a consequence of the way the process is designed or operated? Since AIRCO speaks of two alternatives a) Achieve maximum expansion or b) Achieve minimum change to the tobacco, I would think at least both these options ought to be considered in planning the tasks that flow from the strategic objective as stated on sheet 32. Furthermore I wonder whether DIET fundamentally requires these black and white options. The answer may require a better knowledge of the fundamentals of expansion and of the properties of tobacco itself.

With kind regards.

Yours sincerely,



R. M. Gibb

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