

SOME TECHNICAL POINTS FROM  
VISIT TO B. & W. and I.T.L.

BIOLOGICAL TESTING

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|---|---|
| <ol style="list-style-type: none"> <li>1. We should seek to understand why different tobaccos behave differently so that we can develop 'safer' products from first principles           <ul style="list-style-type: none"> <li>- Ames test said to be a good diagnostic tool. Can this be brought to bear?</li> </ul> </li> <li>2. Mouse skin B16 problem. We should seek advice of world experts, e.g., NCI re suitable mouse strains. Agreed we should not 'just select a strain'.</li> <li>3. Agree the need for a meeting to consider the GR&amp;DC programme in the context of total Group needs. We need biological testing, but what exactly should we do in the future?</li> </ol> | <p>R.M.Gibb</p> <p>R.M.Gibb</p> <p>R.M.Gibb &amp;<br/>R.A.Sanford</p> |
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PRIMARY PROCESSING

There is still a need for understanding the effect of primary conditions on the product, but

1. K.D.K's notes on the new programme re-raised criticism of our 'academic' approach, i.e., we list all the possible problems and interactions, but do not say simply what we propose to do.
  - We need an experience-based forum (e.g., Production Conference) to decide the work programme.
  - An exchange of R. & D. and production staff might be helpful.
2. In our thinking, and our programmes, we need to separate equipment attributes from the basic process, e.g., Hauni plant from Hauni steam process.
3. Important to do research on case leaf drying. (Can the dipper be replaced?)
4. Can GR&DC validate for the rest of the Group B. & W's claims of
  - 30% increase in filling power with small strip by-pass? (I.T.L. would like to know before the end of the year.)
  - effective cutting of non-rolled stem?
5. B. & W's impressive primary development facility is mainly for tobacco studies, not for machinery. Nine chemical engineers in the group.

General

R.M.Gibb

A.Laporte

A.Laporte

A.Laporte

J.Jewell

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EXPANDED TOBACCO

1. DIET samples so bad on particle size, and on loss of nicotine and sugar, that I.T.L. were near to giving up interest.

Is the high top temperature (350°/400°F) destructively distilling off volatiles and giving stiff leaf which (a) helps filling power but (b) breaks easily?

R.M.Gibb

2. B. & W. are not thinking in terms of 400 lb/hr. modules for their Macon DIET plant. A single large plant, e.g., 5000 lb/hr. with good turndown/turn-up would have:

J.Jewell  
J.Steiner

- economics of scale
- lower manpower
- higher CO<sub>2</sub> recovery

3. Strong criticism that BAT have been left trailing behind major competitors. It is vital that we catch up fast on understanding what expanded tobacco does for products - chemically and physically.

General

Note that expansion is not confined to DIET and G-13!

A.Laporte

4. Strong criticism of Airco's poor showing as prime licensor, and implicit criticism of our lack of drive in forcing information out of P.M. via Airco - especially re samples sent for test.

R.M.Gibb/  
C.Warren

R.A.Sanford

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MANUFACTURING and CONTROL

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|----|---|----------|
| 1. | Would it be possible for BAT/GR&DC to convene joint meetings with a number of manufacturers (e.g., secondary, paper and leaf) to assist them develop plant and/or processes for the 5-10 year future? | C.Warren |
| 2. | BAT should force manufacturers to market complete systems for the future (e.g., Molins have poor packers).  | C.Warren |

SECONDARY PROCESSING

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|----|--|------------------------|
| 3. | STRATEGY I is of great interest, if only for its potential spin-off value in specific on-line control systems. It must, however, be based on the latest product with porous paper, ventilated tipping, etc.  | C.Warren               |
| 4. | GR&DC should be in a position to advise Associates on the relative merits of the three main options: <ul style="list-style-type: none"><li>- on-line laser perforation</li><li>- off-line manufacture of laser perforated stock</li><li>- purchase of pre-perforated tipping</li></ul> | I.W.Hughes<br>C.Warren |
| 5. | Golden Belt Inc. is currently offering good quality laser perforated tipping at half the price of Malaucene  | C.Warren               |

CONTROL INSTRUMENTATION

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|----|---|-----------|
| 6. | GR&DC has tried to do too much itself: more developments should be placed on contract.                  | A.Laporte |
| 7. | Can the AcuRay system be turned into a control device for end quality? Will GR&DC pursue for the Group? | R.M.Gibb  |
| 8. | GR&DC need to put a considerable effort into control instrumentation, cf. the April Production Meeting. | W.Ross    |

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PRODUCT DEVELOPMENT (including Taste & Flavour)

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| 1. GR&DC, and BAT generally, have been historically weak in the organic chemistry of smoke and flavours.<br><br>New GR&DC programme strongly welcomed.   | R.A.Sanford<br>R.M.Gibb     |
| 2. B. & W. bulding up separate flavour groups (by recruitment) for domestic and international brands because the markets differ.   | J.G.Esterle<br>M.L.Reynolds |
| 3. Believe that our new flavour programme must be strongly linked with psychology group.   | R.M.Gibb<br>W.Knox          |
| 4. Query how B. & W. product development will tie in with BAT product development for international brands.  | J.G.Esterle                 |
| 5. Product development in B. & W. accorded very high status but on somewhat different lines from M.P.D.C. The executive Steering Committee, chaired by Pitman, with Kirk, Hughes, Sanford and Stunges being fed by a Product Development Committee on which all major functions are represented. There are sub-committees of the P.D.C. for New Products, Non-menthol and Menthol. |                             |
| 6. I.T.L. are planning to try the GR&DC approach to 10 basic components of aroma for the Canadian market, but urge that we develop basic principles for Virginia products generally - as a matter of priority. Strong suggestion that we associate our external consultants (e.g., Dr. Booth) with this work.  | R.M.Gibb                    |
| 7. Request that GR&DC circulate all Associates with clear statement of objectives and time scales for all taste and flavour work.  | R.M.Gibb                    |
| 8. General agreement that I.T.L. success in new launches (seven consecutive above 0.5% market share) is result of intensive effort to identify "meaningful market segments", i.e., gaps or opportunities for switching. Strong interest in direct contact with GR&DC psychology group.   | W.Knox                      |

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PRODUCT DEVELOPMENT (Cont'd)

9. Same marketing men responsible for existing and new marketing products, and acceptance that existing brands can be cannibalised.

W.Knox

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ANALYTICAL & TESTING

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| 1. | Do we do too much work for our main suppliers, e.g., paper? B. & W. are forcing would-be suppliers to present full data before they will consider new products.  | R.A. Sanford |
| 2. | B. & W. claim an impressive increase in productivity by automating analysis. (Eight men saved in two years. More will follow when new computer facility is linked direct to the major instruments.) 250-300 cigarettes smoked per day, generating approximately 60,000 numbers per day, covering analyses and physical testing. Present staff - 11 graduates and c. 50 assistants. | J.F. Nall    |
| 3. | I.T.L. very interested in headspace aromagrams. Would like GR&DC's help on mass spectrometric analysis of the 'nasties' in printing materials.   | R.M. Gibb    |

Copies to: Function Managers  
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Mr. R.J. Pritchard

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