



**BAT (U.K. and Export) Limited**

RESEARCH & DEVELOPMENT CENTRE  
 SOUTHAMPTON ENGLAND

TO	Mr. A.L. Heard BATCo. Millbank	FROM	Mr. I.C. Brown
REF	ICB/BCH	DATE	14 September 1990

Initial results of inclusion of 3 ammoniated materials  
 in a Virginia blend

The blend chosen for this trial was that used in B&H Special Mild (e.g. Virginia with an 8.8% Burley modification). Four samples were made in B.T.C. One control, E374, to the B&H SM specification, one sample with BAT CF 'Emerge' casing applied to the 20% stem portion of the blend (E375), one sample with 9% substitution of B&W CPCL-9 for stem (E376), 1 sample with 9% substitution of ammoniated DEER for stem (E377). The samples were physically and chemically analysed, deliveries measured and cigarettes submitted for sensory panel evaluation.

The physico-chemical data below shows the samples made were broadly comparable although the smoke nicotine measured in E376 and E377 were considerably higher than the first two samples (this was probably due to inclusion of 9% of materials with higher blend nicotine than the stem they replaced).

Physical Data

		Density at 72% firmness	Firmness at at 13.5%	Vent. %	P.D. mm WG
<i>Control 'B&amp;H'</i>	E374	224	74.7	56	166
<i>Emerge</i>	E375	215	75.4	52	164
<i>CPCL</i>	E376	223	75.1	52	151
<i>Am-DEER</i>	E377	231	73.9	51	154

Chemical Data

	Puff No.	Blend mc %	Blend Sug %	PMWF/ c/g	Nic/ c/g	Tar/nic ratio
E374	10.1	2.05	14.4	7.34	0.64	11.5
E375	10.6	2.04	13.9	7.87	0.69	11.4
E376	10.4	2.08	13.8	9.08	0.79	11.5
E377	10.6	2.06	13.5	7.96	0.75	10.6

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The sensory data from these samples showed that the samples were similar in most parameters except the E377 was shown to have a significantly higher flavour amplitude and preference over the control E374. At this stage it is too early to draw firm conclusions on the sensory effects of these treatments (the cigarettes are also too 'new' having only been made 10 days before the sensory evaluation). What we can conclude at this stage is that the CPCL-9 and AMTECH treatments appear to enhance the flavour of the test cigarette and not necessarily in an air-cured slant. AMTECH is at least as effective as CPCL-9 in this particular format. Further work on these samples and the larger study planned for the fourth quarter of this year should give us a better insight of the use of ammoniated materials in flue-cured products. This first quick test at least looks encouraging.

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