

Cytrel: milestones in the search

MORE THAN 20 years ago a team of scientists employed by the Celanese Corporation started to explore the properties of cellulose, which forms the backbone of natural tobacco, to open up a new era for modification of tobacco products.

The product of their work—Cytrel Tobacco Supplement—has been received by scientists, medical experts and the tobacco industry with worldwide interest. Changing the smoking habits of more than 100 years is still a long way off but progress has been made. Cigarettes containing Cytrel are today being sold in Germany, Switzerland and Britain. In the latter country cigarettes containing tobacco supplement are selling at a faster rate than achieved when filter tips were introduced.

The following timetable has been prepared from available public information and highlights the milestones which have occurred in the development and use of tobacco supplements.

1957-58

1957: Celanese scientists initiated in the US the concept of a tobacco supplement based on modified cellulose.

1958: Celanese funds tobacco supplement research programme.

1960-64

Early 1960s: Mounting public interest over the levels of tar and nicotine content in cigarettes. In Britain, the Royal College of Physicians Report on smoking and health was published.

1964: Publication of the first US Surgeon General report on smoking and health. Celanese begins tobacco trade sampling of its prototype tobacco supplement. Celanese broadens first bio-systems assay and smoke chemistry analysis.

1965-66

1965: Imperial Chemical Industries implements tobacco supplement research activity at its laboratories in Scotland.
1966: Emphasis on Celanese tobacco supplement programmes moves to product development levels.

1967

ICI implemented joint venture with Imperial Tobacco in Britain. Imperial Development Ltd. formed by the two partner companies to carry through research and development. Third British company, Courtalds Ltd., entered the field and commenced research and development on a supplement called Tabatral.

1968-71

Celanese sets up a pilot plant in Charlotte, North Carolina, to support extensive product and trade development efforts. They also initiate biological and smoke testing of advanced Cytrel variants.
Courtalds set up a pilot production plant in Coventry.

ICI announced additional investment into its tobacco supplement NSM, New Smoking Material, for testing.

1973

Celanese conducts extended consumer testing in the United States. Results indicate consumer acceptance of man made

supplement concept and acceptance of aesthetics in 20-40 per cent blends of Cytrel. British Government appoint Dr. R. B. Hunter, Vice-Chancellor of Birmingham University to Chair an Independent Scientific Committee on Smoking and Health. Known as the Hunter Committee.

Courtalds test-marketed a 50/50 tobacco supplement blend in Coventry and Newcastle. There was considerable press comment, questions were raised in Parliament and the company was requested to withdraw the brand after two weeks.

Imperial Tobacco announced intention to produce cigarettes with a cellulose tobacco supplement. Construction of a £10 million plant for Imperial Developments began in Ardeer, Scotland.

1974

Celanese announces construction of a Cytrel plant in Cumberland, Maryland, USA. Initial capacity, 9 million lb. a year.

Imperial Tobacco announce plans to conduct consumer acceptability tests in the UK with cigarettes containing 5M Gallaher also announced tests with Cytrel. The Hunter Committee had given both companies the go-ahead for these consumer trials.

In Germany, Federal Ministry of Health approve sales of cigarettes containing tobacco supplements. First brands launched by Maron Brinkman, A.G., part of Reichmann International and British American Tobacco GmbH. The brands, PEER LEICHTER and LEICHTER CLASSE respectively, contained blends of Cytrel and tobacco.

Two other German companies Rayer the chemicals combine and the Reemtsma tobacco group announced a joint supplement product called RCN.

1975

The Swiss tobacco company, Levens Rothmans AG launch a new brand, PEER

SPECIAL, containing blends of Cytrel and tobacco after receiving the go-ahead from the Swiss health authorities in Bern.

Carroll's Rothmans conduct consumer acceptability tests in the UK with cigarettes blended with several supplements including NSM and Cytrel and decide on Cytrel.

The Hunter Committee three-stage guidelines on the use of tobacco supplements published.

Cytrel plant started world's first commercial production of a tobacco supplement. Annual capacity increased to more than 20 million lb.

1976

Dr. Hunter addressing doctors in Edinburgh about his committee's studies of tobacco supplements said "We have very nearly excluded the possibility of uncontrolled hazard."

Courtalds decided to shelve its work on Tabatral. So did Bever-Reemtsma with RCN. Both groups said they were ready to re-start when the demand for supplements... and grows.

In the US, R. J. Reynolds, one of the world's largest tobacco companies, disclosed it had developed a non-tobacco smoking material made from cereal grains that may offer a way to lower cigarette tar and nicotine levels without reducing "smoker satisfaction".

1977

The Hunter Committee gave official clearance for British companies to market cigarettes containing tobacco supplements.

David Ennals, Secretary of State for Social Services, said that the Hunter clearance was a "valuable contribution to the success of the Government's general strategy on smoking and health".

The Third Report of the Royal College of Physicians published in June said that

What some authorities say...

Professor W. J. H. Butterfield of Cambridge University and a member of the Health Education Council in the Daily Telegraph of October 13, 1977:

"Just as no one could have foreseen how acceptable filter tips would become, it is not now a case for everyone to pull together and encourage our new smoking materials..."

Mike Peeble, Director of ASH (Action on Smoking and Health)

"Stopping smoking is still the first priority, although of course those who continue to smoke should lower their tar intake. If post-tobacco brands are responsibly marketed, they could provide a useful addition to the lower tar and low to middle tar ranges."

Dr. Richard Bull, the regius professor of medicine at Oxford University and Britain's foremost medical expert on the effects of smoking. In the Oxford Mail of April 1, 1977:

"I would support their introduction... cigarettes containing tobacco supplements in Britain... they are certainly worth a try."

Dr. Robert Hunter, Chairman of the Independent Scientific Committee on Smoking and Health, on BBC Radio 4, on March 31, 1977.

"A large number of experiments have been done on animals in which these substances (tobacco supplements) have been compared with tobacco, and in the case of damaging effects in these animals there is no doubt that they're a certain bonus to safety."

Mr. David Ennals, Secretary of State for Social Services, in a Parliamentary Reply on March 31, 1977:

"It is regret that the Hunter Committee's clearance of Cytrel and New Smoking Material as a valuable contribution to the success of the Government's general strategy on smoking and health and hope that the conclusions of the Committee will be fully supported by all concerned."

Official Summary of the Royal College of Physicians Report "Smoking or Health", published on June 1, 1977.

"The tar and CO yield of cigarettes should be reduced to a low level with accurate yields at the lowest that smokers would accept without smoking more tobacco substitutes and improved filters could be helpful in achieving this."

Dr. Frank Fairweather, Chief Scientific Advisor and member of the Hunter Committee in the Financial Times of September 24, 1977.

"Substitutes should be given a fair chance and if all this knocking puts substitutes off the market it will be a crying shame."

tobacco substitutes could help in achieving lower tar and CO yields of cigarettes.

Twelve brands were subsequently launched on July 1 in the UK. The six containing Cytrel were two versions of Peer Special (25 per cent Cytrel) by Reichmann International, three versions of Silk Cut (25-40 per cent Cytrel) and Sovereign by Gallaher. The others contained New Smoking Material.

After the first wave of publicity, the media reported that consumer demand for some of the new cigarettes was disappointing. It was later confirmed that large stocks of cigarettes containing New Smoking Material were being destroyed and that there would be redundancies at the NSM manufacturing plant in Ardeer, Scotland.

Rothmans reported that production of Peer Special with Cytrel was being continued to meet demand and that the brand's sales represented 25 per cent of the total UK substitute market.

Correspondence columns in national newspapers published letters in support of tobacco substitutes and Lord Wintalby, the Liberal's Health spokesman in Parliament launched a campaign against the Government's anti-smoking advertising which, he claimed, had been detrimental to sales of the new cigarettes.

Year end speculation was that Gallaher were planning to launch a new cigarette containing Cytrel and an additive. Also reports that there would be a re-launch of tobacco substitute cigarettes during 1978.