Sample Interview

Dr. William Dunn

of

Philip Morris Research Center

Taste Testing of Cigarette Blends

- Q: Tell me, Dr. Dunn, is it really possible to test the taste of a cigarette?
- A: Most certainly. We test the taste of a cigarette against varied criteria such as richness, mildness, body. All of these are elements that go into the determining of satisfying taste. In the case of one of our newest brands, Philip Horris Multifilter, we used bi-level testing to determine the best tasting blend.
- Q: What do you mean by bi-level tests?
- A: Well, in this case we used two panels -- one to determine simple consumer preference on a yes-or-no basis; the other was made up of tobacco experts with long and varied experience with leaf and tobacco products who were asked for a highly detailed descriptive analysis.
- Q: You mean that there are people who can sort out different tastes where tobacco is concerned?
- A: Oh yes. We have experts in the tobacco industry who can analyze tobacco blends just as the tea or whiskey industries have their expert tasters. However, we only use recognized experts for our <u>final</u> testing. We find that initially, average smokers can pick out a satisfying blend without being leaf or flavor experts.

- Q: What do you look for in these taste tests?
- The expert looks for just about the same thing all smokers look for, the most natural tobacco taste.
- Don't all cigarettes have a natural tobacco taste?
- A: No, not really. You see, when you get into high-filtration cigarettes that are so popular today, you sometimes lose the taste of the tobacco. That's why many cigarettes turn to the use of what I like to call "exotic" flavoring agents, perhaps cocoa or even apricot flavoring.
- Q: Can you tell us something about your taste tests?
- A: Certainly, both tests were conducted at the Philip Morris Research Center in Richmond, Virginia, under the supervision of laboratory scientists. In the case of the preference test, known as the booth test, approximately 100 employees who qualified as typical cigarette consumers, were questioned over a long period of time. In the case of the expert panel, 8 people spent one entire day testing.
- Q: Why did you spend only one day on the second, more sophisticated test?
- For two reasons: participants in the booth test were asked to vote "yes" or "no" on one of two blends at a time, and through the course of the testing smoked each of twelve variations. By a process of elimination, we were able to scale down the final test to two major blends, so we weren't dealing with anything near as numerically high a test field as in the earlier case. And, our expert panel was made up of some of our key people -- vice presidents, leaf purchasing and flavor specialists, and laboratory scientists. They are all busy men, so we selected a highly intensive one day test method.

- Q: The Booth Test does that refer to a scientists name?
- A: Oh no, it refers to the fact that we conducted this initial test with twenty testing booths.
- Q: Will you tell us how this booth test works?
- Yas, in the case of the booth test, our selected group of people who are involved with the manufacture of cigarattes but not with some of the more technical or specialized aspects of leaf analysis or purchase, were asked to step into booths set up at the center during lunch hours and coffee breaks. Those times were chosen not only for the obvious work reasons, but also because they are times when people would normally be having a smoke. They are receptive to a satisfying smoke at these times. In each booth was a small delivery and recording machine which, when a button was pushed, delivered a lighted eigerette coded ---- A I, A 2, Q 3, and so forth --- but unlabelled, although some of the blends were comparable to blends used in cigarettes now on the market. All in all, we submitted twelve variations, all identical in appearance, in three central blends to this group. A basic blend of fine burleys, brights and other tobaccos, somewhat similar to our Harlboro, a basic blend plus a distinct flavoring ingredient, and a basic blend with an indistinct touch of menthol. The tester was asked to smoke approximately half of the first cigarette, then press the button again and smoke half of the second elgarette. Then, the tester was asked to push a button on the side of the machine registering simple preference for the first or the second cigarette. By testing in pairs, we were able over a period of time to have each person smoke and register a preference between all twelve variations. We then tallied the statistics from this test and settled on two major blends for our expert panel test. 1001901197

- Q: That's very interesting, Dr. Dunn. Tell me, what sort of tobacco blends did this group select?
- A: One was a blend remarkably similar to a charcoal filter eigerates now on the market. The other was a blend which has a very distinct, rich tobacco flavor which smokers associate with being a natural tobacco flavor, although of course all smoking tobacco has some added flavor agents.
- Q: How did the expert panel arrive at its decision?
- A: Well, we brought these very busy and highly experienced men together at the center very early in the morning placing each person into a separate compartment where they smoked first one test blend, then the other through the major part of the day. During this time they took highly detailed descriptive notes on each blend. During the latter part of the day, we brought the group together in panel discussion, where each person meticulously described and analyzed each blend. Following this, there was an intensive discussion. At the close of what had been not only an exhaustive day from the standpoint of taste testing, but an exhausting one from the physical standpoint of the panelists, the group overwhelmingly settled upon the "natural" blend.
- Q: Dr. Dunn, you said earlier that with high filtration digarettes you sometimes lose the tobacco flavor. How do you restore the flavor after the smoke has passed through the charcoal filter?

(sore)

As Actually, it's not so much a case of restoring flavor as it is of preserving the original taste. At the outset, we had to ask ourselves a basic question, "do we want a cigarette that tastes like something else, or do we want a cigarette that tastes like natural tobacco?"

Of course, the answer is that you want "natural" flavor. In the case of Multifilter, we accomplished this by selecting a blend with a lot of flavor stamina and the use of a second filter containing an agent which preserves the original taste of the tobacco.

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