

Forty Years Before the Vats



The Spearmint Oil Crisis of 1958

By Robert P. T. Young

You really have to be an old timer to remember the original yellow Ipana toothpaste. It was not only a sickly yellow in color, but it was also full of bubbles. The single reason that it sold so well was that it had a delightful, almost candy-like, spice-mint flavor. As a child, I liked it so much I would eat some direct from the tube.

Colgate Dental Creme has always been a smooth, white paste; and when Gleem entered the market, it was also smooth and white. Ipana felt it had to change. Studies must have shown that its unattractive appearance was hurting sales because it soon appeared as a smooth, white paste, too. But now it had a wintergreen flavor. We guessed its scientists had been unable to correct the bubbling and coloring due to the spice components.

When I was assigned both the dentifrice and flavor development groups for the Toilet Goods Division of Procter & Gamble, I set a goal in my own mind to have a gang formulate a spice-mint flavor as good as old Ipana which would not cause the paste to bubble or turn yellow. But my first years in that job were fully occupied with Crest development, and it was not until 1956 that we had time to work on a spice-mint Gleem.

Jim Neely was our chief flavorist; and since he had been trained as a pharmacist, he was a pretty fair chemist as well. In his formulations he avoided any spice components which might react with the ingredients in the paste itself; and in several months he had a quite acceptable spice-mint flavor for use in Gleem. To my mind, it was not quite as good as the old Ipana flavor that I remembered; but, then, few things are ever

quite as good as our memories tell us they had been. We decided to send experimental samples of our new, spice-mint Gleem through our test panels.

Single Product Panel Test

I had chosen Harry McDaniel to head up the perfume and flavor group—he was the most “broad-spectrumed” man I knew. Not only was he artistic enough to volunteer to dance in the ballet scenes of the operas which played in the Cincinnati zoo in the summertime, but he was manly enough to hit the most home runs at our company outings. He liked perfumery, which is an art; but, surprisingly, he was also a first-class mathematician.

Harry and I invented what we called the “Single Product Panel Test.” We used it internally to do preliminary screening. Our technique was to give each panel member a single sample and a card. The card directed the panelists to rate the product on a “thermometer” scale marked off in tens from zero to one hundred, to state the name of the product used regularly, and to sign their names. When the cards were returned, we would plot the histogram of the ratings.

Harry and I felt that this simple test told us a lot. We calculated the average and the standard deviation for each product tested. The average gave us an idea of the general acceptability of the sample; the standard deviation showed us how uniform this acceptance was (a small number indicated more uniform acceptance). We repackaged commercial products into experimental



packages and developed the statistical parameters for them. Then we could run statistical tests to determine if the sample was better liked than other products. It was fun!

Our technicians packed some of Jim Neely's spice-mint Gleem in plain, small tubes, and we passed them out to our panel. When the cards were returned, we knew we had a winner. The ratings were both high and bunched together. Everybody liked it.

We made a larger number of tubes and sent them over to the Market Research section for their professional evaluation. They ran internal panels and "church-panels" and confirmed our findings. Jim Neely had formulated the best tasting dentifrice in the world!

The brand people of Procter and Gamble who worked downtown were advised of the new development. They put their advertising agencies to work on the project and chose a test-market city. It was to be Denver, Colorado.

Jim Neely visited one of our mint-oil suppliers and followed the distillation of the spearmint oil. It was far more "natural" than the highly refined oil we normally used, that is, the head and tail-cuts were very small. The oil was shipped to P&G's compounding facilities, and Jim sent them the complete formulation. Their first pre-shipment sample was excellent, and we directed that it be sent to the factory. In due course our development team went over to make the first batch of spice-mint Gleem. The run went well. If the test market was successful, we would write Manufacturing Specifications and turn production over to the factory.

A "Natural" Disaster

It was a gray day in November, 1958, when Jim Neely came down to my office. His face was as gray as the weather outside. I knew something was seriously wrong. He slumped into the chair I offered.

"What's up, Jim?" I asked.

He just sat there in what appeared to me to be a state of shock. I waited.

Finally, he blurted out, "We're out of spearmint oil, Bob."

"That's O.K., Jim," I said as soothingly as I knew how, "just go to our suppliers and have them distill some more."

"I can't."

"Why can't you?"

"There isn't any."

"What do you mean there isn't any?"

"There's something wrong with the new crop. It can't be used as a natural flavor. I suppose it

will be O.K. as a rectified oil, but it's real raw when distilled to the specs for spice-mint Gleem."

"Are you sure about this? I never heard of such a thing."

"I'm absolutely sure, Bob. All our suppliers tell me there's something seriously wrong with this year's crop."

"It's still all right, Jim," I said. "We just won't go national until we have an assured source of supply. For the test market, we'll continue to use last year's oil."

"We can't."

"What do you mean we can't? There's always a year's supply of oil around somewhere."

"Not this year."

"What's different about this year?"

"Well," Jim explained, "American Chicle has come out with a Spearmint Dentyne. They must have found out about this crop failure before we did because they've bought up every single drum of last year's oil."

"Maybe we made enough in the first batch to at least support Denver."

"That's the problem, Bob," Jim said sadly. "I just got a call from the formulation gang asking for another approved shipment of mint oil. The brand people had advised them that the Denver sales were going so well they were almost out."

I didn't have a mirror in my office but I believe my face must have been at least as gray as Jim's. Or maybe it was white. I had heard the previous week how delighted the people downtown were about the Denver test market, and how they had already poured over half a million dollars into the project.

Jim left and I asked my secretary to arrange some flights to Kalamazoo, Seattle, and return. I wanted to talk the situation over with Win Todd and Larry Givens—my best friends in the mint game. This wasn't the type of thing one could discuss over the telephone. When she had my schedule confirmed, I called to make the appointments and went home to pack my bag.

As I supposed, Jim's information had been exactly correct, but my real interest was not the present (after all, everything is available at a price, and we certainly could have found old drums of old spearmint oil somewhere in the world—at least enough to supply the Denver test), but the future. How sure were our suppliers that next year's crop or the crop after that would be usable as a "natural" oil? I found that it would be virtually impossible to have two crop failures in a row, but there was no guarantee. The smart



thing to do would be buy at least a two-year supply when the crop was good and hold it in inventory as insurance. It was generally believed that this was the practice Wrigley followed. The only problems were that P&G hated to carry long inventories of anything, and when would that "good" year be?

On my return to Cincinnati, I recommended that the Denver test market of spice-mint Gleem be abandoned, and it was.

On the Synthetics

Many business school graduates have been taught that P&G management relied heavily on the one-page weekly report for control; but few have been told that, at least in the technical divisions, this weekly report always had to be optimistic. The reason was a sound one—why bother your superiors with problems? Theirs are always bigger than yours. Just report your successes, or at least your immediate plans to make your projects successful. Get the job done!

In my weekly report after the spearmint oil fiasco, I wrote that I planned to go to New York to ask Firmenich to formulate a synthetic peppermint oil and Givaudan to compound a synthetic spearmint oil so that the company would no longer be dependent on the exclusive use of variable natural oils. I stated that synthetic oils should have the advantages of unlimited availability, sourcing free of political problems of any kind, uniform quality, and more-or-less stable pricing.

I took along a sample of the "natural" spearmint oil we had used in spice-mint Gleem as the spearmint target, and one of our midwest peppermint samples as the Firmenich target. The most urgent immediate need was to see if we could reformulate the spice-mint flavor, and I knew that the bulk of Givaudan's work would be done in New York and that I would be allowed to follow it. I knew some of their flavorists rather well. The peppermint project was one of longer range, and I thought most of the Firmenich work might be done in Switzerland.

And so, for the next year or so, I would make a trip to New York once every six weeks to check on progress. I hate to admit it but my schedule was more-or-less set by Charlie Bryan's schedule. I would invariably go when he told me he would be free for lunch.

My trips became a routine—but such a delightful one. I would fly on the early morning flight to New York and take a taxi directly to Givaudan. I would pay my respects to the boss (as well as I can recall, it was Dr. Durrer at the



time) and then go back in the lab and sniff and taste samples. I would pick the ones I wanted Jim Neely to check out and put them in my briefcase. Then I would move on to Firmenich, always arriving about 11:30.

Charlies Bryan and I never did any real work. Oh, he had samples, of course, and he gave them to me to take back to Cincinnati for evaluation but, mostly, it was a social call. I liked Charlie Bryan—we were so very different I think we attracted each other. He was so cosmopolitan, and I was so country! I always let him do the talking. He knew everything that was going on in the industry, and he had important (and often very funny) stories. He was the only person I ever met who belonged to the Explorer's Club (a group of about fifty people—no more than one from each state) who hunted all over the world for exotic game. His stories were fabulous!

About high noon we would head for Chris Cella's and move through the crowd to a table in the kitchen. I was always amazed how many people Charlie knew—he always greeted almost all of the diners. I didn't need a menu; I always had the same, my favorite lunch of all time: an enormous martini with olives, and a plate of tiny bay scallops direct from the skillet! Boy! After lunch, Charlie would help me get a cab and I'd head home.

Turpentine to Mint

One day Jim Neely called me. "Bob," he said, "I've got someone up here I'd like you to meet."

"I'll come on up, Jim," I said. I was anxious to stretch my legs.

Jim introduced the man in his lab as a John Faber.

"He works for Glidden in Jacksonville, Florida," Jim said. "They're making synthetic mint oils from turpentine. Taste these."

He had introduced some of John's experimental oils into sugared chewing gum base. I tasted the sticks. They were better than anything we had yet seen from the New York efforts.

"I didn't know you have flavor chemists in Jacksonville."

"We don't," John admitted. "We do all our work imitating nature chemically. We're just awfully good chemists."

And that's how I first heard about the business to which I devoted most of my working life. And, as far as I know, P&G never based another flavor on low-rectified spearmint oil.

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