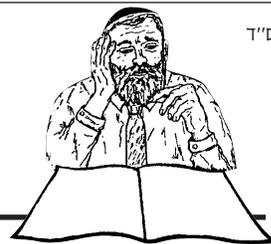


THE Daf HaKASHRUS



A MONTHLY NEWSLETTER FOR THE  RABBINIC FIELD REPRESENTATIVE

INGREDIENT PROFILES: PAREVE NATURAL CHEESE FLAVOR

BY RABBI GAVRIEL PRICE

Ingredients Approval Registry

A few weeks ago a young man from my neighborhood, prompted by his conscientious mother, brought me a box of garlic and cheese flavored melba toast. The melba toast was marked © *pareve*. As he pointed out, the ingredients label indicated that the product contained natural cheese flavor. He did not need to explain the question. It was staring us in the face. “Could this be true?” he asked.

Yes, I said, it could be true. But to make sure (thank you, senior mashgichim for constantly reminding us never to make assumptions) he should inquire with the RC responsible for the melba toast production, Rabbi Herbsman, who also happens to live in the neighborhood. The young man did, and the next day he happily reported that Rabbi Herbsman said it was okay.

Natural pareve cheese flavor appears to be a contradiction: it's one thing for an artificial cheese flavor to be pareve, but for natural cheese flavor to be pareve seems an impossibility. Cheese, after all, is dairy. That's what drove this young man and his mother to ask the question.

But from the perspective of federal labeling regulations the phrase is not a contradiction. “Natural” in the phrase “natural cheese flavor” simply means that the ingredients are drawn from any natural source, which includes botanical, dairy, meat, fruit, juice and other natural items. “Cheese” means that the sum effect of these ingredients is to convey a flavor of cheese. According to the Code of Federal Regulations, the *dinei d'malchusa* that set forth manufacturing and labeling practices for the food industry, a flavor that claims to be a particular flavor need not be derived from that same thing. A “meat flavor” may contain no meat (and may also be pareve), and an “egg flavor”

need not come from eggs. Even if the natural substance must undergo multiple chemical manipulations to be like that other flavor, the new flavor can still be considered natural. Recently, for example, German and British flavor laboratories have discovered that a chemical found in rice has the potential, if it undergoes aggressive biochemical conversions, to become vanillin, which is reminiscent of vanilla. Vanilla flavor that contains such rice-derived vanillin can legally be marketed as “natural vanilla”. By the same token, a garlic and cheese melba toast could be labeled pareve.

Although it is possible for a pareve cheese flavor to exist in theory, it has proven to be a much more difficult task for flavorists, the name given to the flavor chemists that create flavors, to come up with a credible version of a cheese flavor without recourse to actual cheese. To appreciate the task, it's necessary first to have a basic understanding of how flavors are created.

Flavors are experienced, for the most part, as aromas. It is a well-known fact of human experience that a person suffering from a cold does not taste foods as fully as someone not suffering from a cold. If a person plugs his nose, he will not be able to distinguish a significant difference, other than in texture, between a blueberry and a cherry. The tongue does sense fundamental aspects of taste: sweet, sour, bitter, salty, and a protein, savory-like taste can all be felt even with one's nose plugged up. But the extraordinary variety of flavors is experienced through the aromas of the food, and registered through the nose.

If a food goes into our mouths, how is the flavor experienced through our nose? In every food there are chemicals – i.e. substances that are native to the food – that float up from the surface of the substance into the air. This property of chemicals is called volatility. Perfume, for example, is a mixture of various volatile chemicals. In fact, one of the factors a perfumist considers when composing a perfume is the timing of how quickly a specific substance will rise into the air. It's better, after all, if a perfume can last several hours – until the end of the *chasuna*, say – rather than

continued on next page

PARTING IS SUCH SWEET SORROW?

BY RABBI HOWARD KATZENSTEIN

Business Manager, Trademark Compliance

early intervention before the company switches certifications or drops the Kosher program, is critical. Contact the RC and/or myself to discuss.

In the event a plant is terminating certification, the proper supervision and steps are as important as when the plant was certified.

The termination of a difficult plant or company may be welcomed.¹ However, the Kiddush may be premature.

Firstly, we should examine why the plant is terminating and is it possible to salvage. However,

According to the standard OU contract, upon termination, all packaging material bearing the © symbol must be destroyed or have the © symbol excised in the presence of the RFR or at least to be verified by the RFR. The RFR must make a thorough search of the plant. If the plant has closed, it is critical to find out what happened to the remaining labels if any. Look for a notice posted about an auction or ask neighboring plants. Vigilance is just as important after termination as during certification.

¹ The RC might be thrilled to lose a labor intensive account. The RFR may be happy to lose an out of the way plant.

CHEESE

continued from previous page

be released immediately into the air, leaving the wearer perfumeless by the first course. Ammonia, which is a cleaning detergent and highly odoriferous, is an exceptionally volatile substance. The phenomenon of volatility is what makes flavors into aromas that we experience in our noses.

There are multiple chemicals that waft into the nose from any given food. Each one contributes a different aspect to the flavor. To the untrained nose a flavor seems like an undifferentiated flavor. But to someone who has conditioned himself, it is possible to identify many of the different flavor notes. My Uncle Duvie once said that he had a cousin who was a taster for the Royal Wine Company. This cousin, presumably, was the kind of person who can taste wines and use terms such as “dry, with a hint of peach and earthy notes”. Each of these “notes”, that Uncle Duvie’s cousin would be able to talk about, are actually different volatile chemicals that contribute different aspects, or notes, to a flavor.

A taster’s sensitivity for various notes may be heightened, but he still will not be able to identify the full gamut of notes in a food. Analytical chemical techniques have been used that literally separate the various chemicals and enable chemists to give chemical names to the various chemicals that contribute to a flavor. These techniques (a recent design goes by the brand name The Sniffer) sometimes identify hundreds of chemicals and indicate the precise proportions that these chemicals make up in their contribution to a flavor.

Until the 1940’s food chemists in Europe, where cheese making is something of a passion, had been using various analytical techniques on cheeses with the hope that they would find a single chemical that, they thought, was responsible for the essential “cheese” note. As far back as the 1860’s chemists had already found that the vanilla pod contains an ingredient, vanillin, that is reminiscent of vanilla. While it did not provide the creaminess or richness of real vanilla, vanillin did provide the characteristic vanilla flavor. Creating a simulated vanilla flavor began with a simulated vanillin. Perhaps, the chemists thought, a similar chemical, single-handedly responsible for the essential cheese flavor, would be found in cheese.

These efforts failed left and right, and finally, in the 1950’s, a European chemist came up with a theory that no single chemical is responsible for a characteristic cheese flavor, as vanillin is for vanilla, but that cheese flavor is the result of a combination of different chemicals working in concert, at precise proportions. He called it the component-balance theory, and it continues to be the model for understanding cheese flavor today.

Since then, increasingly sophisticated chemical analytical techniques have enabled chemists to now identify over one hundred different chemicals in cheddar cheese flavor. The correct proportion and balance of these various chemicals creates the flavor profile of cheese. This information is significant for the flavor chemist because it makes possible the recreation of a more persuasive cheese flavor. Once a flavorist has a portrait of the flavor that he or she is trying to reconstruct, it is possible to begin to draw on other raw material sources for those chemicals and recreate the flavor from scratch.

Take the evolution of milkfat, for example, during the cheese making process. In cheddar cheese production, milkfat breaks down to create new molecules. These derivatives of milkfat provide aromas that were not given off by the milkfat itself. Caproic acid, which provides what is called a goat-like note, is one of these milkfat derivatives. Caprylic acid, which gives a sweaty odor, is another derivative.

A flavorist putting together a pareve natural cheddar cheese flavor would have to find natural sources of caproic and caprylic acid. He would find them in coconut oil. Coconut oil, like milkfat, can be degraded to produce new odor-giving molecules that are identical to the ones found in milkfat. The kashrus of such coconut derivatives, incidentally, is not straightforward. It happens that, despite the fact that coconut oil itself is innocuous, the industrial machinery needed to split coconut oil often goes back and forth between splitting coconut and other vegetable oils and animal fats. So caproic and caprylic acids, which often appear on proposed formulas for pareve cheese flavors, would require that they be kosher certified.

The formulas that flavor companies use typically do not exceed more than a dozen or so ingredients. That’s partly because of cost; the more notes that are offered, the larger the investment in the flavor. But it is also due to our lack of knowledge of the complex interplay of the entire flavor chemicals involved in a cheese flavor, despite the fancy analytical techniques that chemists have developed. So, while products like garlic and cheese may contain flavors that are reminiscent of cheese, flavors that to some extent fulfill the component-balance sought by the flavorist, they are still not quite the real thing.

I wasn’t able to explain all of this to the young man at the time, nor am I sure he was interested. But for those of us in kashrus, it’s helpful to understand the nitty-gritty involved in the production of the ingredients that have become so central to our working lives.

KASHRUTH alert!

BAZZINI WASABI PEAS (5 lb. bag) UPC: 7506230999 produced by A.L. Bazzini Co., Inc., Bronx, NY mistakenly bears an unauthorized © symbol and is not certified as Kosher by the Orthodox Union. Product has been withdrawn from the marketplace and packaging has been revised.

MAZAL TOV TO ...

RABBI AND MRS. MENACHEM GENACK upon the birth of a granddaughter Aviva Rivka, to their daughter, Shira and her husband, Rabbi Kenneth Schiowitz.

our devoted RFR in Manchester, England **RABBI AVROHOM SCHWARZ AND HIS WIFE** on the engagement of their daughter Chavi to Itzik Horn of Manchester, England.

our dedicated RFR in Seattle, WA **RABBI YITZCHAK GALLOR AND HIS WIFE** on the engagement of their son Avraham to Sarah Abrahamson of Monsey, NY.

our devoted RC **RABBI TZVI GOODMAN AND HIS WIFE** on the engagement of their daughter Batsheva to Ben Zion Schneider of Wickliffe, OH.

our devoted RFR in Louisville, KY **RABBI YOSEF CAPLAND AND HIS WIFE** on the birth and Bris of their son Yaakov Peretz.

Rabbinic Administrator position available for Vaad Hoer of St. Louis.
Send resume and references to STL Vaad Harabanim at RabCouncil@aol.com.

דף השנה ל'ג - A YEAR OF THE DAF - תושלב"ע