

Raw Material Bulletin: CSA Roundtable

The following products were among those displayed during the recent Chemical Sources Association (www.chemicalsources.org) roundtable event at the Sheraton Newark Airport Hotel in Newark, New Jersey.

Advanced Biotech (www.adv-bio.com) displayed **trans-2-hexenoic acid** (FEMA# 3169), an EU natural material with a dairy, creamy, milky odor with a ripe body and slight gamy impression. Its taste is creamy dairy and cheesy, with a berry top note. The material is recommended for dairy, cheese and berry applications at levels of 5–10 ppm. The company also presented **2-methyl 2-pentenoic acid** (FEMA# 3195), an EU natural with a berry, fruit, strawberry and raspberry odor with a rose note. The material has a berry, fruit and dairy flavor and is recommended for berry, fruit and dairy applications at levels of 1–20 ppm.

AM Todd's (www.amtodd.com) **natural pyrazine mixtures** were demoed at 0.25% in ethanol on blotters. **Pyrazine 2-ethyl (5,6) dimethyl**—comprising FEMA# 3149, 3150 and 4434—gives a roasty, earthy taste at suggested levels of 0.05–5.0 ppm. The company's **pyrazines mixture No. 10**—incorporating FEMA# 3149, 3919, 3154, 3244, 4434, 3150 and 3272—gives a nutty, earthy, roasted nut, cocoa, coffee and chocolate taste at levels of 0.05–5.0 ppm.

Bakto Flavors (www.baktoflavors.com) displayed **oregano natural preservatives** in PG, water and spray dry. The low-odor materials, appropriate for juices, baked goods, meat and ready-to-eat foods, feature antioxidant and antimicrobial activity, and can protect against *Listeria monocytogenes*, *Staphylococcus aureus*, *Helicobacter pylori*, *E. coli*, mold and some yeast.

Bedoukian Research (www.bedoukian.com) presented **trans-2-tridecen-1-ol** (FEMA# 4617; CAS# 68480-25-1),

a colorless liquid that features a mild, persistent waxy odor. The kosher, alcohol-soluble material is recommended for use at 1%. The company also displayed **homomenthyl acetate** (FEMA# 4512; CAS# 67859-96-5), which features a minty, herbaceous odor and minty spiced gum drop flavor at a recommended use level of 6%.



Matt Foge, Gillian Bleimann and Bill Ludlum (all The Whole Herb Co./Berje).



Duane Flom and Dinh Phan (both SAFC).



Dolores Avezzano, Kathy Bobinger and Frederic Madelaine (all Cargill).

Bell Flavors & Fragrances (www.bellff.com) displayed its range of food grade botanicals, including licorice, quassia, elderflower, coriander and black currant. The materials are intended for use in beverages, dairy, soups, chocolates, nutritional bars, cereals, condiments, health supplements and other applications.

Berje (www.berjeinc.com) presented a portfolio of botanical extracts for flavors marketed under the **Sensient Natural Origins** trade name. The **lemon terpeneless Sicilian** is a pale yellow oil containing a strong natural aroma and flavor profile of lemon Sicilian. The **cucumber**, in PG, is an alcohol- and water-soluble yellow-green liquid with a highly concentrated cucumber character with characteristic green notes.

Biolandes' (www.biolandes.com) **spearmint liposoluble extract** was demoed on cracker. The pure oleoresin, diluted in oil and presented on-blotter, features a fresh, leafy smell. Meanwhile, the company's **cocoa roasted**, appropriate for beverage applications, imparts toasted notes; on-blotter it imparted a dark roasted character.

Cargill/Alfrebro (www.cargill.com) presented natural **benzyl cinnamate** at 5 ppm in 5 Brix sugar solution. The material possesses sweet, balsamic, floral and coumarin facets and is intended for red fruit flavors

and to add balsamic nuance to vanilla. The company's **furfuryl formate 50% in furfuryl alcohol** (FEMA# 4253), displayed at 5 ppm in 5 Brix sugar solution, features a burnt, roasted, nutty, coffee impression ideal for nutty and roasted flavors.

Delong Chemicals America (www.delongchemicals.com) presented **4-decenoic acid** (FEMA# 3914; CAS# 26303-90-2), a nature identical material naturally occurring in beer and hops. The ingredient imparts milk and tropical fruit impressions ideal for candy and dairy products at a level of 1–5 ppm.

The company's **4-ethyloctanoic acid** (FEMA# 3800) was an EU natural material occurring naturally in canton wood, goat meat and Virginia tobacco. It features a creamy aroma, baked lamb impression for application in lamb meat flavors and cheese at levels of 0.1–10.0 ppm.

Firmenich/Vigon (www.vigon-international.com) displayed **three-fold vanilla extracts** from India, Papua New Guinea and Uganda, and featured a **three-fold Bourbon vanilla extract**. Also on display were **colorless cocoa distillate** and a **cocoa nibs extract**.

Fontarome (www.fontaromechemical.com) presented **thialdine** (FEMA# 4018; CAS# 638-17-5), possessing a heated meat, roasted beeflike character. The company also displayed **3-octyl formate** (FEMA# 4009; CAS# 84434-65-1), which is floral, pinelike and sweet.

Frutarom (www.frutarom.com) presented **methyl furfurylmercaptoproprionate** (FEMA# 4538; CAS# 94278-26-9), featuring an

earthy, meaty and (at lower levels) slightly fruity odor. The material is intended for use in meat, mushroom, coffee, tomato and chocolate flavors. The company also displayed **2,3-epoxy octanal** (FEMA# 4657; CAS# 42134-50-9), which has a fatty and aldehydic powder odor with hints of cilantro. It is intended for use in bakery, chicken and citrus fruit applications.



Ken Dougherty (Firmenich), Fred Kiefer (Firmenich), Jeff Milton (Vigon) and Michael Ardan (Firmenich).



Christian Eberhardt and Celine Roche (standing; both Mane) during one of the day's roundtable sessions.

Global Essence's (www.globalescence.com) food-grade absolutes and resinoids included **lavender absolute** (*Lavandula officinalis*), an alcohol-soluble material that is sweeter and less floral than the essential oil. The material features a woody impression, an herbal undertone and coumarin sweetness, and blends well with blood orange, clary sage, coriander, lemon, lime, rosemary and thyme oils. The company's **labdanum resinoid** (*Cistus ladaniferus*) is soluble in alcohol and oil. It features woody, earthy, sweet and flowery impressions that combine well with angelica root, coriander, ethyl maltol, vanillin, frankincense and saffron in soft drinks, baked goods and candy.

Lionel Hitchen's (www.lheo.co.uk) **grapefruit nootkatone** was dosed at 0.001% in a beverage. The ingredient represents an economical supply of the material. The company's **guajillo SOR**, dosed at 0.17% on a potato chip, had a smoky chili pepper impression.

Mane (www.mane.com) presented its **Vintage Ingredients**, alcohol resinoids that comply with Ecocert Greenlife, Oasis, Cosmos and NaTrue guidelines. The ingredients on display included **benzoin Siam**, **cocoa**, **everlasting** (immortelle) and **olibanum**, in addition to a **cardamom CO2 extract**.

Naturex (www.naturex.com) presented its **natural fruit Hinotes** in beverages. The top note range, manufactured from fruit without solvents, include **apple**, **banana**, **peach**, **strawberry**, **lemon** and **guava**.

Polarome (www.polarome.com) displayed **ylang ylang oils** from **Bernardi SAS**, including extra superior, extra, first, second, third and complete varieties. The complete is the "crudest," while the fractions present an array that becomes cleaner, smoother and more floral as they move across the spectrum. Second is less spicy and more floral than third. First is clean and highly floral and is often used in fine fragrance. Extra and extra superior are the highest quality of the range.

SAFC's (www.safcglobal.com) **2-acetyl-3,5(or 6)-dimethylpyrazine** (FEMA# 3327; CAS# 54300-08-2) possesses a caramel, hazelnut organoleptic character. Soluble in alcohol, water and PG, the kosher, nature identical mixture of isomers is recommended for use at levels of 5 ppm. The company's **2-isobutyl-3-methylpyrazine** (FEMA# 3133; CAS# 13925-06-9) features a green pepper, earthy organoleptic profile and is recommended for use at a level of 5 ppm.

Symrise/Vigon (www.vigoninternational.com) displayed **cycloionone** (FEMA# 3822; CAS# 5552-30-7), a kosher material naturally occurring in osmanthus and passionfruit. It features a woody, cedarwood, raspberry and orris root impression when dosed at 1 ppm in 5% sugar solution. The material is useful in berry, tea and passionfruit flavors at a level of 20 ppb–20 ppm. Also on display was **Symcool** (1-menthyl lactate; FEMA# 3748; CAS# 59259-38-0), demoed in blackcurrant candy. The kosher material has a fresh, mild cooling, sweet menthol taste and is useful in mint and fruit flavors at levels of 1–2,000 ppm.

Teawolf (www.teawolf.com) presented its premium **black tea extract**, a primarily Argentinean-based product appropriate for iced tea beverages. The company also displayed a premium **green tea extract** derived from sencha tea. Finally, Teawolf showed its wolfberry (goji) distillate, which has the characteristic top notes appropriate for alcoholic beverages, flavored waters and compounded flavors.

The Whole Herb Co. (www.wholeherbcompany.com) displayed **annatto seeds**, **ginger root**, **pink pepper-corns** and **lemongrass**, in addition to its **luo han guo** natural sweetener, proprietary **tea blends** and materials such as **cilantro**, **cumin** and **cayenne**.

Virginia Dare (www.virginiadare.com) displayed **10-fold organic vanilla extract** from Madagascar, fair trade **green tea concentrate** and **black tea concentrate**.

Wen International (www.weninternational.com) presented natural **δ -undecalactone** with milky, cheesy, dairy and peachy facets. The company also showed natural **succinic acid** (CAS# 110-15-6) with a tart, astringent mouthfeel, as well as natural **filbertone ketone** (FEMA# 3761) 10% in EtOH with hazelnut and fatty nuances.