perfumer & flavorist®

February 2024

www.PerfumerFlavorist.com

The Resource for Sensory & Wellness Innovation



The Current State of Cosmetic Ingredients in The Fragrance Realm

Nutritional Flavor Ingredient and Solution Debuts On The Rise

Flavorful & Functional

Discover the popular trends and ingredients driving innovation in beverage flavor formulation on page 32.

WPC 2024 Conference Tackles Competitive White Space & Consumer Connection

WANT MORE?

Check out our digital magazine exclusives!

www.PerfumerFlavorist.com/DM

Allured business media



BE Berjé Sustainable

Committed to the future of true sustainability.

Berjé understands what it means to be truly sustainable. Our ESG strategies cover every aspect of our business, from comprehensive recycling programs to environmentally-conscious sourcing methods. Our dedication to long-term relationships with local growing communities at-source ensures that we can provide a more sustainable economic future for our industry.

THE BERJÉ GROUP

The privately-owned flavor and fragrance ingredient source since 1949.

+1 973 748 8980 • www.berjeinc.com

always
inspiring more ...

symrise

Nerolione

a breeze of orange blossom

MEET THE POWERHOUSE IN THE SYMRISE HIGH IMPACT PORTFOLIO!
Nerolione – complex and pure – intense and clean – tender and powerful.
Symrise captured the radiant scent of orange blossoms offering endless possibilities.
The outstanding and versatile properties of Nerolione bring invigorating fresh
breezes to the heart of your creations meeting today's requirements.



CONTENTS

VOL. 49 NO. 2 | FEBRUARY 2024









6 **Editor's Note: 3 Ways the F&F Industry Can Connect & Educate Consumers**

8 **Product Roundup: Ingredients**

10 **Industry News**

17 **Profiles: Paula Kundu**

18 **Flavor Bites: Furaneol in Fruit Flavor Formulations**
By John Wright
Furaneol is so expansive that, to do it justice, the author split this column into parts, looking at fruit flavors first.

22 **The Current State of Cosmetic Ingredients in The Fragrance Realm**
The Fragrance Creators Association weighs in on MoCRA as well as the current challenges in the cosmetic ingredients category as it relates to fragrance.

26 **Clean Reserve's H2Eau Water-based Fragrances Tap Sensitive Skin Market**
Discover how this non-irritating effect opens up the world of scent to consumers who might otherwise shy away from the fragrance category.

28 **Nutritional Flavor Ingredient and Solution Debuts On The Rise**
The latest investments and portfolio debuts in the nutritional ingredient space.

32 **Popular Trends & Ingredients in Beverage Flavor Formulation**
See the growing trends in alcoholic and non-alcoholic beverage categories and the driving factors behind consumer choices.

36 **Ask An Expert: How to Begin Your Fragrance Journey**
Serge Oldenbourg shares how to become a perfumer and different avenues on where/how to train.

40 **Conference Tackles Competitive White Space & Consumer Connection**
See the growing conference session and speaker lineup for the event scheduled for this summer in Geneva.

44 **How You Can Take the Stage at *Flavorcon* 2024**
Here's how to submit your pitch, reserve a booth, or just get involved with *Flavorcon* 2024.

48 **Ad Index**

ON THE COVER: Image courtesy of Cottonbro Studio at Pixels

NEVER LATE

IN THE

Yipppeee!™ Wonderland!

Vigon's quick turnaround keeps you running on time. Come through the looking glass for a wonderland of speed.





Vigon and Azelis together, a happily ever after for you.

vigon.com

azelis

VIGON
PASSION FOR SIMPLICITY

CONTENTS







Want to report a new development at your company?

Send the details to:

Perfumer & Flavorist+ magazine

336 Gundersen Drive, Suite D

Carol Stream, IL 60188-2403 USA

fax: 1-630-653-2192 • e-mail: perfumer@allured.com

@perfumerflavorist Perfumer & Flavorist @perfumer_flavorist

perfumer & flavorist+

EDITORIAL

Content Director Jeb Gleason-Allured | 1-630-344-6069/jallured@allured.com
Editor in Chief Katie Anderson | 1-630-344-6077/kanderson@allured.com
Managing Editor Jenna Troyli | 1-630-344-6053/jrtroyli@allured.com

SOCIAL MEDIA

Social Media Specialist Crystal Dentis | 1-630-344-1821/cdentis@allured.com

ADVERTISING SALES

Associate Publisher Paige Crist | 1-630-344-6060/pcrist@allured.com
Advertising Production Manager Kasia Smialkowski | 1-630-344-6025/ksmialkowski@allured.com

AUDIENCE DEVELOPMENT

Marketing Specialist Sam Attebery
Customer Service 1-847-559-7554/customerservice@perfumerflavorist.com

DESIGN

Assistant Design Manager James Fergus
Senior Graphic Designer Hon Bannapradist
Digital Production Specialist Kyle Torain

CORPORATE

Partner & CEO George Fox
Partner & President Janet Ludwig
Director of Events Christine Meehan
Marketing & Creative Director Kim Fry
Digital Products Director Rose Southard

Allured business media

Allured Business Media
1-630-653-2155 • fax 1-630-653-2192
336 Gundersen Drive, Suite D
Carol Stream, IL 60188-2403 USA
www.Allured.com

OTHER ALLURED PRODUCTS

Flavorcon
World Perfumery Congress
Cosmetics & Toiletries magazine
Cosmetics & Toiletries magazine: Portuguese edition
Global Cosmetic Industry magazine
Beauty Accelerate
Skin Inc. magazine
Face & Body Skin Care Show
Beauty Launchpad magazine
Beauty Go Pro Show
MedEsthetics magazine
WellSpa 360 magazine
WellSpa 360 Expo
Nailpro magazine
Nailpro Show

SUBSCRIPTIONS

Perfumer & Flavorist+ (ISSN 0272-2666) is published monthly by **Allured Business Media**.

Subscriptions: Subscribe online: *www.PerfumerFlavorist.com/subscribe*

For both the US and internationally, telephone: 1-847-559-7554
(9 AM-5 PM Central, Mon-Fri) | Fax: 1-847-291-4816
E-mail: customerservice@perfumerflavorist.com
Address: *Perfumer & Flavorist+*, PO Box 3009, Northbrook, IL 60065-3009

Periodicals Postage paid at Carol Stream, Illinois, and additional mailing offices.

Print subscriptions are free to qualified individuals in the United States.
Print subscriptions are not available to those living internationally.

POSTMASTER: Send address changes to *Perfumer & Flavorist+*, PO Box 3009, Northbrook, IL 60065-3009

Change of address: Give both the new and old addresses. Allow two months for a change to become effective.

Missing issues: Claims for missing issues must be made within three months of the date of issue.

Allured Business Media makes all attempts to publish accurate information; however, this publication may contain technical inaccuracies or typographical errors. The reader assumes all risks concerning the suitability and accuracy of the information within this publication. Allured Business Media assumes no responsibility for and disclaims all liability for any such inaccuracies, errors or omissions in this publication and in other documentation referred to within or affiliated with this publication.

Copyright 2024: Authorization to photocopy articles and news is granted by Allured Business Media, provided that the fee of US$6 per copy per item is paid directly to the Copyright Clearance Center Transactional Reporting Service, 21 Congress St., Salem, MA 01970—Publication No. 0272-2666/01/$6.


MG
INTERNATIONAL
FRAGRANCE
COMPANY
in alliance with dsm-firmenich
FOR THE LOVE OF FRAGRANCE
M.G
Established in 1961
mgfragrances.com

3 Ways the F&F Industry Can Connect & Educate Consumers



Educating consumers needs to be a collaborative effort between F&F resources, brands and regulatory associations; image courtesy of Drazen at Adobe Stock.

In December 2023, I was invited to participate on a panel at the International Fragrance Association (IFRA) Global Summit in Geneva. The panel began by discussing global megatrends impacting the fragrance industry, two of which were transparency and sustainability. These megatrends extend beyond the B2B and have become demands from consumers when it comes to their F&F products.

We're in the beginning stages of the educated or informed consumer; which is a consumer who will eventually and ideally be looking beyond typical buzzwords like "clean" or "safe" in their purchasing. But there are many steps before we reach that level specifically in the education realm. Because associations like IFRA, Research Institute of Fragrance Materials (RIFM) and F&F houses are in the B2B space, the weight of education is currently largely falling upon fragrance, beauty and personal brands.

So how do we, as the F&F industry, cross that barrier and educate consumers who can be misinformed by social media influencers and clickbait articles? Here are three suggestions:

1. Communication of regulatory updates and procedures from associations like IFRA as well as evaluations and conclusions from research institutes like RIFM utilizing palpable language for the consumer. Experts in the F&F industry can publish peer-reviewed pieces and industry updates and insights for publications alongside a summary of the piece in layman's terms for the research and policy to be easily digestible for the consumer to build trust through education.

2. Use trade media as a resource for sharing and listening: Ensure activities and guidance trickle down to fragrance professionals across R&D, operations, regulatory, etc. by bylining stories and engaging with social posts. Connect the dots between emerging regulatory/safety topics and the day-to-day activities of fragrance professionals—focusing on "what does this mean for me?"

3. Finally, I would also add that organizations can and should reach out to science and fragrance-positive influencers to help share fragrance education. Key players in the F&F industry can and should open their doors to people who are trying to spread positive messages about fragrance.

All that being said, if you're interested in penning a research article with a companion summary in layman's terms for the readers in the consumer realm, please send me an email (jtroyli@allured.com).



JENNA TROYLI
Managing Editor
jrtroyli@allured.com

Editorial Advisory Board

SCOTT CHAPLAN
SCMC Consulting

DARRYL DO
Perfumer
Delbia Do Fragrances

ALISON FREEDMAN
Senior Flavorist
dsm-firmenich

CYNDIE LIPKA
Principal Flavorist
Bell Flavors & Fragrances

MARK KNITOWSKI
Fragrance Curator

RISHABH C. KOTHARI
President of Fragrances and Flavours Association of India

NEHA OKHADE
Perfumer
Agilex

JOHN WRIGHT
Independent Flavorist and Author


OQEMA
AROMA INGREDIENTS
ESSENTIAL OILS
ABSOLUTES
COOLING AGENTS
DISCOVER
A WORLD
OF WONDER
www.oqema.com
Find something new this year with OQEMA. Request our portfolio today.
NEW YORK · ROTTERDAM · DUBAI · OXFORD · SHANGHAI · HAMBURG · KUALA LUMPUR

Ingredients



Acidity Blocker- 4, Natural

Natural Advantage

www.natadv.com

Natural Advantage presents Natural Acidity Blocker-4. This blend of FEMA GRAS materials can be used to block the acidity in beverages, dressings, and yogurts. It suppresses the perceived acidity in low-pH applications. A typical use rate of 0.001%-0.050 % is consumed in the finished product. It is EU and U.S. Natural, Kosher, non-GMO and vegetarian.

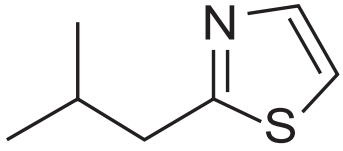


Black Tea Extract - M_0068478

Mane

www.mane.com/news/ingredients

Inspired by its flavor expertise, Mane Black Tea Extract is made from high-quality tea leaves sustainably sourced and harvested by hand in Sri Lanka. Very impactful, it shows herbaceous notes with fruity hints and smoky facets, reminiscent of a cup of a strong black tea.

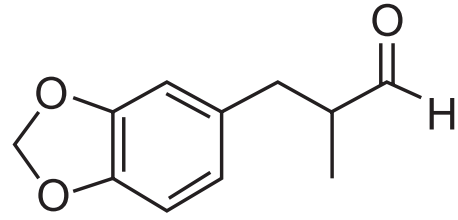


EU Natural 2-Isobutyl Thiazole

Oamic Ingredients USA

www.oamicus.com/

EU natural 2-isobutyl thiazole (FEMA# 3134, CAS# 18640-74-9) features odor characteristics of green, vegetable, musty with a waxy nuance. Taste characteristics include green, vegetable and tomato-like with raw musty nuances. Suggested applications are soft drinks, candies, chips, pudding, soup and sauce.

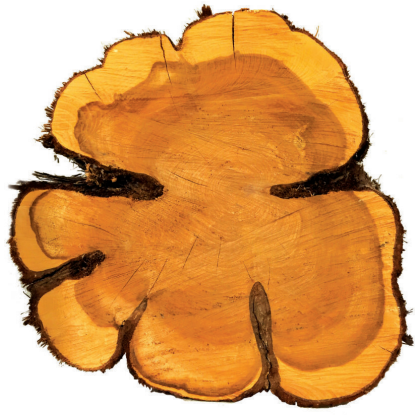


Floramelon

Hangzhou Grascent Co., Ltd

www.hangzhougrascent.com

Floramelon (CAS# 1205-17-0, FEMA# 4599) features a fresh floral odor with a melon top note. Its applications include fine fragrance, personal care, fabric care and home care. The recommended use level is up to 10%.



Cedarwood Oil Texas Redistilled

Berjé Inc.

www.berjeinc.com/products/essential-oils/cedarwood-oils/cedarwood-oil-texas-redistilled/

Cedarwood Oil Texas Redistilled (CAS# 68990-83-0) is derived from the Juniperus mexicana tree, which grows abundantly throughout the southern USA. Its aroma is dry, sharp, and woody, with a clean and slightly sweet top note. This sweetness eventually gives way to pleasant balsamic undertones, often compared to fresh pencil shavings.

Images courtesy of the manufacturers



Furfuryl Butyrate 06-37000

Penta International Corp.

www.pentamfg.com

Furfuryl Butyrate 06-37000 (CAS# 623-21-2, FLAVIS# 13.130, COE# 638, JECFA# 759) contains a flavor base as fruity and gooseberry-like. This material has odor notes as grape, fruity and green. Our material is FDA-approved for use as a flavoring agent or adjuvant. It is Food Grade, Kosher and Halal.





Rosaphen

Symrise AG

www.symrise.com/de/scent-care/aroma-molecules/ingredient-finder/#Rosaphen

Rosaphen (CAS# 25634-93-9), the smooth and elegant Symrise specialty, adds powdery and cosmetic facets to a fragrance. It emphasizes floral facets and is also readily biodegradable. Rosaphen offers a smart solution for fragrance creation both as a modifying or character-giving aroma molecule. Get kissed by a rose.

Vanillin, Natural

Aurochemicals

www.aurochemicals.com/

A popular ingredient with vast and potential use, Vanillin, Natural embodies the complex flavor notes of vanilla. Its wide scope of usage includes baked goods, ice cream, chocolate, dairy products and candy. Our Vanillin, Natural holds a 99% purity rating which exceeds requirements for both food and pharmaceutical grades.



Orlandi Acquires Aroma Release Technology Inc.'s Consumer Product Sampling and Fragrance Coatings Business



Orlandi secured a new lease in Chattanooga, Tennessee, to support the ongoing manufacturing laboratory operations; image courtesy of Orlandi, Inc.

Orlandi, Inc. has announced the successful acquisition of Tennessee-based Aroma Release Technology Inc.'s (ART) consumer product sampling and fragrance coatings business. Additionally, Orlandi secured a new lease in Chattanooga, Tennessee, to support the ongoing manufacturing laboratory operations.

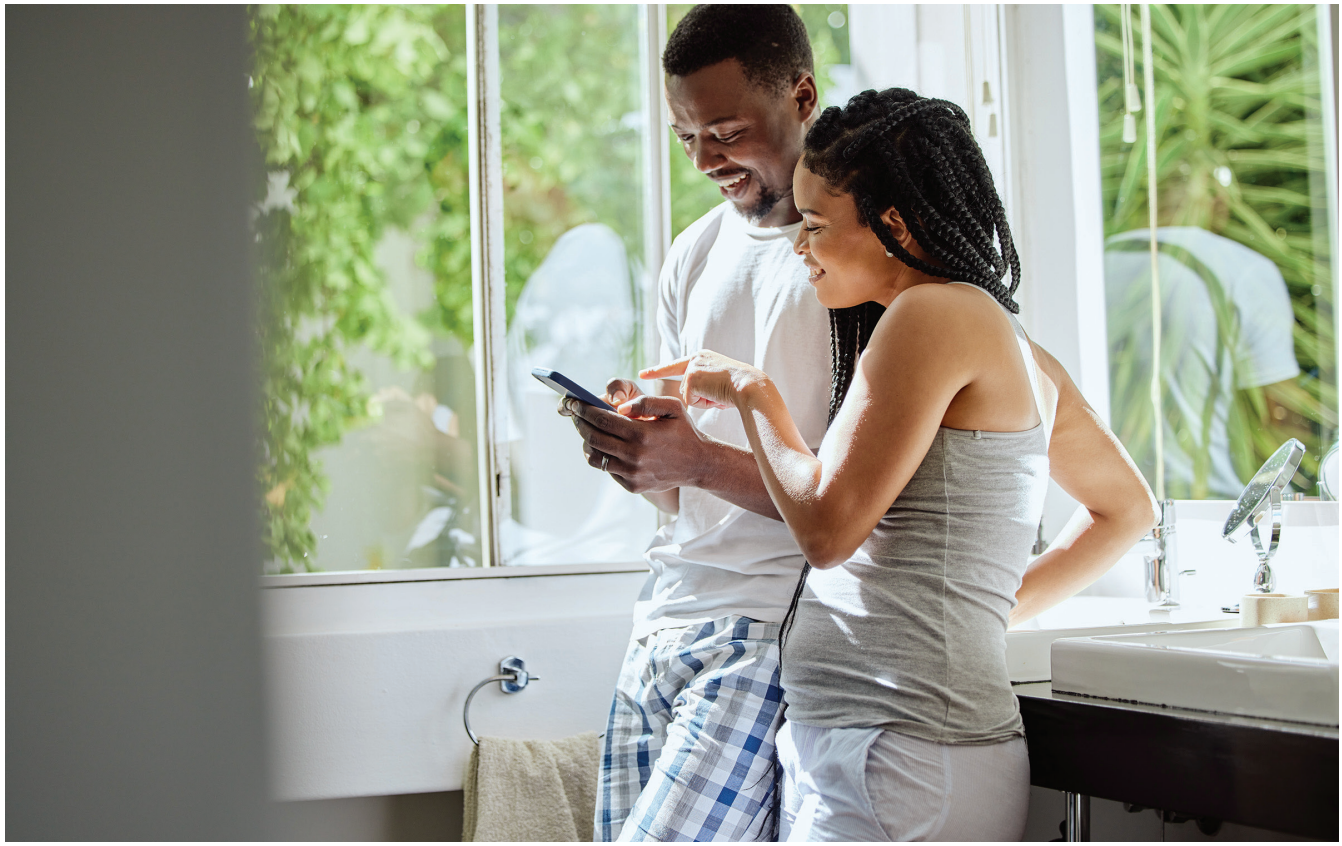
Sven Dobler, CEO of Orlandi stated, "We see this acquisition as a win-win for Orlandi, ART, and our common customers, it is a perfect fit and complement to our growing consumer products sampling and air care business. We will provide organizational and marketing support to assure its growth and continued success."

"We are excited about the new ART product line additions as it represents an important technology investment by Orlandi in support of our many growing fragrance sampling and air care products," per Dobler, Orlandi's Senior vice president.

ART's president Douglas Whitaker added, "This transaction is the culmination of an almost thirty-year collaboration with ORLANDI and I am pleased to leave our consumer product sampling business in and trusted hands." ART will continue other commercial activities not part of this transaction.

Reproduction in English or any other language of all or part of this article is strictly prohibited. © 2024 Allured Business Media.

Eurofragance and Alphanosos Partner to Combat Malodors with Artificial Intelligence



The stated objective of the collaboration is to uncover complex fragrance solutions for bio-originated disagreeable body and musty smells; image courtesy of Spanish fragrance house Eurofragance and the French Green-Bio-Deep-Tech company.

Spanish fragrance house Eurofragance and the French Green-Bio-Deep-Tech company Alphanosos have entered into a shared risks and rewards collaboration to explore the malodor fighting potential of complex mixes of ingredients, going beyond predictable performance with the help of artificial intelligence (AI) algorithms.

Slated to last two years, Alphanosos will bring its proprietary AI and experimental microbiology platform to accelerate the design of innovative and efficient accords said to create new and patentable discoveries directly usable in the cosmetics and beauty fields.

The stated objective of the collaboration is to uncover complex fragrance solutions for bio-originated disagreeable body and musty smells. The duo aims to offer real-life solutions that can be applied in everyday consumer products and to propose new proven claims to manufacturers marketing products against malodors in the home and personal care segments.

Partnership Specifics

Eurofragance's malodor counteraction platform EuroPure is designed to leverage a portfolio of mechanisms to offer a broad range of solutions for brands promising consumer well-being and reassurance. In this collaboration, Eurofragance counts on the R&D Scientists in its own Innovation Center, an extensive knowledge of fragrance raw materials, evaluation protocols and consumer insights. Moreover, it offers deep experience in integrating complex technical solutions into perfumes to delight consumers.

Alphanosos is set to utilize its AI algorithms to assemble natural or chemical non-pharma ingredients resulting in patentable blends with strong biological activities for cosmetic and food applications, a prelude to Alphanosos' subsequent objectives in human health and pharmaceutical applications.

p&f+

Symrise Inaugurates Jardin Arabia Fine Fragrance Creative Center

In October 2023, Symrise debuted Jardin Arabia, its new creative center dedicated to fine fragrance in Dubai. The name "Jardin Arabia" is said to pay homage to the region, "embodying its central location at the crossroads between Europe and Asia, while also highlighting the natural beauty of the building's structure."

The grand opening hosted Symrise's Fine Fragrance perfumers Théo Belmas, Margherita Carini, senior perfumer Philippine Courtière, master perfumer Loc Dong, president Global Fine Fragrance Julianne Pruett, deputy president Global Fragrance Ricardo Omori, president Global Fragrance Eder Ramos, and other essential team members, clients, content creators and media.



Ribbon cutting at Jardin Arabia Symrise Dubai, f.l.t.r.: Tarek Anbar (Fine Fragrance Dubai), Julianne Pruett (president Global Fine Fragrance), Ricardo Omori (deputy president Global Fragrance), Eder Ramos (president Global Fragrance); image courtesy of Symrise.

"Jardin Arabia demonstrates our strong commitment to continue to drive our business and support our partners in the region. As Symrise expends its capacity with this new full-service facility, we are showcasing our innovative and challenger mindset." Ricardo Omori, deputy president Global Fragrance

The hub is designed to offer dedicated areas for creative arts, olfactory culture, and exclusive events, ranging from fragrance masterclasses, perfumer interactions, and trend discussions that together will facilitate learning, networking and knowledge-sharing.

"Our new collaborative space, Jardin Arabia, is strategically located in the heart of Dubai, between The Marina and The Palm, two iconic bustling neighborhoods. It is a luxurious oasis where our partners and team members can think outside the box to co-create the next olfactive jewels of the region," Julianne Pruett, president Global Fine Fragrance.

Oud Onyx

Oud Onyx was created by Alienor Massenet and Margherita Carini, as an interpretation of Oud pays tribute to the enduring affection for the legendary wood in the GCC region.

"de Laire is very special to me, it embodies Symrise's patrimony and our luxury roots. Alienor and I followed the vision to infuse the legacy of the Middle East in these iconic bases. We have built Oud Onyx DL around a new unique Oud signature and the vibrance of Ambrostar[a] and Flowerpool[b]. An unexpected duo for the emblematic de Laire collection." perfumer Margherita Carini shared.

Patchouli Minéral

Symrise fine fragrance perfumers Théo Belmas and Loc Dong developed a new de Laire base with Patchouli Minéral which is said to be inspired by the exploration of an iconic ingredient of perfumery: the exquisite, high-quality, patchouli from Madagascar, which is textured and velvety by essence.

"Patchouli Minéral DL was born out of a challenge: to modernize a very well-known perfumery ingredient, patchouli. This creation adds a fresh woody base to the legendary de Laire bases collection, using our remarkable quality of Patchouli Madagascar. A co-creation that explores new olfactive territories, carving Patchouli with Ambrostar and Sympep. Blurring the edges between wood and ambergris to craft a salty, mineral and intense new de Laire base," shared perfumer Théo Belmas.

[a]Ambrostar is a registered trademark of Symrise
[b]Flowerpool is a registered trademark of Symrise

Mane Introduces Range of Concentrated Fried Juices Utilizing New Process

In response to consumer expectations of tasting "fried" flavors in savory foods, Mane's R&D team at Mane Quéven, in Brittany, northern France, has developed a new range of concentrated juices cooked in oil. Mane is said to utilize sunflower oil and concentrated juice are cooked under pressure at high temperatures, the resulting flavored oil is kept which provides an authentic fried vegetable flavor.

The range comprises onion, carrot, red bell pepper and shallot profiles, with mushroom to be added soon—designed to be used in various products such as pasta sauces, ready meals, filled pasta, table sauces, pan-fried vegetables, oil, etc.



Mane's range comprises onion, carrot, red bell pepper and shallot profiles; image courtesy of Mane.



Kalsec Inc. Debuts Finishing and Distribution Center in Singapore



L to R: Arun Jayaraman (Singapore site director, Asia Pacific), Kathleen Koh (VP & MD Asia Pacific), Robert Wheeler (CEO), Aaron Wheadon (senior vice president of Global Business Development), Bertrand Martzel (vice president Global Taste & Sensory Solutions and Natural Colors Business Units); image courtesy of Kalsec Inc.

Kalsec Inc. debuted its Finishing and Distribution Center in Singapore to expand its international footprint to better serve food and beverage brands and manufacturers. The new Kalsec Singapore Finishing and Distribution Center is located at JTC Food Hub @ Senoko, a shared facility fostering an ecosystem of players in the food industry.

"It is gratifying to see the accomplishment of this milestone after intense planning and great cross-functional teamwork," said Kathleen Koh, vice president and managing director of Kalsec Asia. "The new facility will have a positive impact for our customers, including faster response times and order fulfillment, especially with products in high demand in the region."

Robert Wheeler, Kalsec's chief executive officer, said, "The modernized facility in Senoko is a testimony of our dedication to bring products and services closer to our customers. It is also part of Kalsec's plan to diversify our production locations, enabling us to further strengthen our production and customer reach capabilities."

"Kalsec's new Finishing and Distribution Centre leverages Singapore's strong connectivity and position as a trusted location for business and innovation to tap on the region's growth, while diversifying Kalsec's production bases and enhancing its overall business resilience," said Mr. Soo Haw Yun, Vice President, Investment Facilitation, Singapore Economic Development Board. "Kalsec's latest investment is a valuable addition to our local ecosystem engaged in food research and manufacturing and creates exciting job opportunities for Singaporeans."

Interstellar Lab Participates in L'Oreal Green Sciences Incubator



Interstellar Lab develops, builds, and operates biofarming solutions to optimize plant cultivation and molecular composition on Earth and in space; image courtesy of Interstellar Lab.

The biotech startup Interstellar Lab has announced its participation in the incubation program from L'Oréal Green Sciences Incubator.

The recently initiated incubation project between Interstellar Lab and L'Oréal Green Sciences Incubator is said to evolve around the shared belief that the future of beauty lies at the intersection of science, nature and technology.

Interstellar Lab develops, builds, and operates biofarming solutions to optimize plant cultivation and molecular composition on Earth and in space. The high environment modules developed by Interstellar Lab are said to enable sustainable, high-precision cultivation of high-value-added plants used by the natural ingredients, cosmetics, pharmaceuticals and food industries.

Interstellar Lab's first product, BioPod, is an artificial intelligence-controlled biofarm that accelerates production cycles and increases the production of bioactive compounds in plants. BioPod is said to deliver a sustainable cultivation tool that anticipates the challenges of sourcing plants and the environmental impact of producing natural ingredients.

The incubated project supports L'Oréal for the Future's commitments, specifically that by 2030, 95% of its ingredients will be bio-sourced, derived from abundant minerals or circular processes. Interstellar Lab and L'Oréal will be exploring the potential of BioPod to source a variety of molecules, active ingredients.

"L'Oréal is engaged in a transition that is profoundly changing how the beauty industry create and manufacture products. We are thrilled to collaborate with the world's leading beauty player, using nature to redefine the future of sustainable beauty," shared Barbara Belvisi, founder and CEO at Interstellar Lab.

Givaudan Reveals World's First Microbiome-Centered Fragrance Technology Platform Z-biome



The Z-biome fragrance design tool is said to allow perfumers to craft microbiome-friendly scents that are especially gentle on the skin's microflora; image courtesy of Givaudan.

Givaudan has introduced what is said to be the world's first microbiome-centered fragrance technology platform—Z-biome[a]. The platform features two fragrance design tools—Z-biome and Z-biom Deo.

Z-biome: The fragrance design tool is said to allow perfumers to craft microbiome-friendly scents that are especially gentle on the skin's microflora. It can be used to formulate personal care applications.

Z-biome Deo (for microbiome-friendly and deodorizing fragrances): Based on more than 30 years of expertise in malodor counteraction research, this technology is designed to effectively combat sweat malodor while respecting the natural perspiration process.

According to the company, developing the Z-biome fragrance technologies involved years of multi-disciplinary research testing many different perfumery ingredients to measure their impact on the skin's most common bacteria population. Following the research, Givaudan's team of perfumers then built on the findings.

Jeremy Compton, Global Head of Science & Technology, Fragrances, shared, "We always try to develop new technologies which are relevant to consumers' needs, so the new Z-biome platform helps address the desire to protect the skin microbiome as well as enhancing overall wellbeing. We're very proud of developing these new technologies that are in line with our purpose of creating for happier, healthier lives, with love for nature."

[a]Z-biome is a trademark of Givaudan

PROFILE: PAULA KUNDU

Daughter of a perfumer, Kundu talks about her journey to the industry, advice for newcomers and what excites her most about *WPC* 2024.

International Aromatics senior perfumer Paula Kundu connects to share her journey to the fragrance industry, advice for newcomers and what she's looking forward to most about *World Perfumery Congress* (*WPC*) 2024. As a board member of the American Society of Perfumers, Kundu has been invested in creating a stunning lineup of conference sessions for the upcoming congress set for this summer in Geneva, Switzerland. For more insight into *WPC*, visit **page 40.**



International Aromatics senior perfumer and American Society of Perfumers board member, Paula Kundu.

What led you to the fragrance industry?

Paula Kundu [PK]: I did not have much knowledge of the fragrance industry, though my mother is a perfumer. I knew it existed, I knew she came home with yummy white chocolates from the flavor division and "sticks" that always smelled nice, but that was about it. Though my mother is a perfumer, she always wanted me and my sister to find our own paths, so she did not impose her field of study and industry on us. I was originally a pre-med student who had applied and was accepted to a joint medical program that guaranteed medical school admission after my four years of undergraduate school. One summer, my mother urgently needed lab technicians to fill newly vacant positions and recruited my cousin and myself as a "pair of hands." This is where it all began for me, I was fascinated by this new (to me) world that combined art and science so seamlessly and never looked back.

What applications do you formulate for? Do you have a favorite?

PK: I have always worked for mid-size fragrance houses, one of the reasons is because I get to work on a variety of applications, and it never gets boring for me. I formulate mostly for personal care, air care, fine fragrance, and household. I would have to say my favorite is air care, particularly upscale reed diffusers and candles!

Are there any recent projects/wins you're particularly proud of?

PK: Yes, there are many, but being that I am from a mid-size fragrance house with lots of big business and since we compete with some of the larger houses, our company prefers we do not divulge our customer base. However, I can say that I have many wins in the upscale detergent market, upscale candle and reed diffuser market, as well as mid-market personal care and fine fragrance.

Advice for people coming into the perfume field or the best piece of advice you've received?

PK: Having patience, tenacity, and an inquisitive mind will take you very far in this field; also, you must love and have passion for this industry to be successful. For me, my creative process is inspired by the passion and love I have for the creative and adventurous aspects of life, such as art, travel, nature, décor, culinary explorations, music, etc. So perfumery for me is a medium to express what I love and am passionate about in life. I also suggest that a person entering this field learn all of the essential oils and their composition and odors thoroughly as well as the stability properties of different raw materials in different applications.

What are you looking forward to most about the return of the *World Perfumery Congress*?

PK: Seeing colleagues and the speaker engagements, I know a great lineup of speakers is being developed as we speak, and I can't wait to listen to all of them! I am also excited to see new raw materials from our suppliers.

Reproduction in English or any other language of all or part of this article is strictly prohibited. © 2024 Allured Business Media.



Fig flavors are another minor category, but furaneol is even more central to the profile. Eight thousand ppm works well; image courtesy of baibaz at Adobe Stock.



BY JOHN WRIGHT
johnwrightflavorist@gmail.com

FLAVOR BITES:

FURANEOL IN FRUIT FLAVOR FORMULATIONS

Furaneol is so expansive that, to do it justice, the author split this column into parts, looking at fruit flavors first.

I am not often enthusiastic about trivial chemical names. They often lead to confusion. It would be nice to imagine that the chemist who came up with the names, caproic acid, caprylic acid and capric acid had a magnificently malevolent sense of humor. I suspect the truth is much more mundane. The names were all variations on the Latin word for goat.

4-Hydroxy 2,5-dimethyl-3(2H)-furanone (FEMA #3174, CAS #3658-77-3, COE #536, DG SANTE #13.010) is a notable exception. This chemical is so important in the flavor industry that it has been given many trivial names. Furaneol is far and away the most widely used and is not remotely capable of confusing.

Furaneol is found so widely in nature that it is hard to know where to begin. There are two broad categories. The first is fresh fruit flavors, led by pineapple and strawberry, which it can form an important part of the profile. The second relates to any food that has been heated.

Reproduction in English or any other language of all or part of this article is strictly prohibited. © 2024 Allured Business Media.

The strong relationship between furaneol and other candy notes is complicated. The most important is maltol. On a good day, Furaneol is twenty-five times stronger than maltol, but in some flavors, the strength relationship is much lower. Maltol enhances furaneol, which complicates things further.

Furaneol, like maltol, has the effect of enhancing the perception of sweetness, which adds to its utility. This subject is so expansive that, to do it justice, I have split it up, looking at fruit flavors first.

Note that the dose rates given throughout this article are the levels suggested for use in flavors intended to be dosed at 0.05% in ready-to-drink beverages or in a simple bouillon.

Fruit Flavors

Acai: Furaneol adds a pleasant background sweetness to acai berry flavors at around 100 ppm.

Apple: The effect of apple flavors is also to provide depth and background sweetness. The ideal level of addition is similar, around 50 ppm.

Apricot, Hakuhou, Nectarine and Peach: Higher levels, in the region of 500 ppm, are more effective in this group of orchard fruit flavors.

Banana: Furaneol is an optional ingredient in banana flavors, but 20 ppm adds a pleasant taste effect.

Blackberry: Levels vary in concert with the level of musk notes, but 1,000 ppm is a good starting point.

Blackcurrant: Levels also vary in blackcurrant flavors, starting at 500 ppm in traditional-style flavors. More authentic, fresh styles can accommodate much higher levels.

Blueberry: Very similar comments apply to blueberry flavors, with levels ranging from 200 ppm to 2,000 ppm.

Cherimoya: Authentic cherimoya flavors benefit from around 100 ppm of furaneol.

Cherry: Similarly, all styles of cherry flavors are enhanced by furaneol. Levels vary, but 200 ppm is typical.

Cranberry: Similar levels are also effective in cranberry flavors.

Dragonfruit: Furaneol works well in dragonfruit flavors at 50 ppm, adding a subtle sweetness.

Durian and Jackfruit: One hundred ppm of furaneol helps to build the soft aroma and taste background to mitigate the dramatic sulfur notes.

Elderberry: Elderberry flavors are a minor category, but furaneol plays an important role at levels in the region of 1,000 ppm.

Fig: Fig flavors are another minor category, but furaneol is even more central to the profile. Eight thousand ppm works well.

Grape: Levels vary dramatically in grape flavors, but the most important category, Concord grape, needs around 1,000 ppm.

Grapefruit, Orange and Lemon: Grapefruit, orange, lemon and other citrus flavors are not obvious homes for furaneol. However, adding a hint of this ingredient, from 2 ppm to 5 ppm, enhances the effect of juice as opposed to peel.

Guava: Furaneol is important in guava flavors. Levels start at 2,000 ppm, but the sky's the limit.

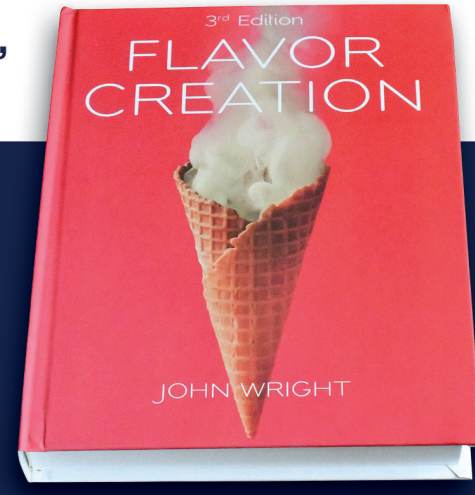
Kiwi: Despite the delicate nature of kiwi flavors, 1,000 ppm of furaneol is not overdone.

Loganberry: Although musk notes are minimal in loganberry flavors, the level of furaneol can be higher

JOHN WRIGHT'S FLAVOR CREATION,
Third Edition is now available!

Order the Third Edition now through Blurb
visit www.johnrwright.com for details

This must-have guide covers everything from flavor creation techniques and raw materials to end products and sensory science. Get your copy today!



than in blackberry flavors, up to 1,500 ppm.

Lychee: Fifty ppm forms an attractive backdrop to the rose notes in lychee flavors.

Mango: High levels of furaneol, from 1,000 ppm to 2,000 ppm, dominate the foundation of mango flavors.

Mangosteen: Similar levels are equally effective in mangosteen flavors.

Melon: Authentic melon flavors, irrespective of style, work best with modest levels, around 100 ppm. More fantasy, watermelon, oriented flavors can use levels up to 2,000 ppm.

Passionfruit: The level in passionfruit flavors is quite subject to creativity. Realistic levels are around 500 ppm, but much higher levels can be very attractive.



Authentic melon flavors, irrespective of style, work best with modest levels, around 100 ppm. More fantasy, watermelon, oriented flavors can use levels up to 2,000 ppm; image courtesy of nerudol at Adobe Stock.

Pear: Pear flavors do not need an obvious background foundation, but 50 ppm of this ingredient rounds out the taste significantly.

Pineapple and Strawberry: These two flavors can be considered together because furaneol forms a key part of their character recognition skeleton and ideal levels are very high, around 10,000 ppm. These high levels pose two important challenges. One is the cost. This can be offset to a degree by adding maltol. The two chemicals exhibit a mutually enhancing effect and allow some reduction in the level of furaneol. The other challenge is stability. Furaneol is susceptible to oxidation, giving rise to off-notes with a fenugreek odor, which is offensive in fruit flavors. In some applications with a long shelf life, this can be a noticeable problem. Ascorbic acid reduces but does not always eliminate the off-notes. One fairly effective solution is to use ethyl furaneol, which is three times stronger and significantly more stable. Wild strawberry flavors are an interesting sub-group within strawberry flavors. They differ from most other strawberry flavors in many respects. The most important are the higher levels of methyl jasmonate, and methyl thiobutyrate, along with a generally lower level of furaneol.



Fifty ppm forms an attractive backdrop to the rose notes in lychee flavors; image courtesy of 9dreamstudio at Adobe Stock.

Prune: High levels work well in prune flavors, where the effect is a combination of the level in the original fruit added to the level caused by drying. Additions vary radically, starting at 1,000 ppm.

Raisin: Raisin, along with Rum and Raisin flavors, only need a small addition, around 20 ppm.

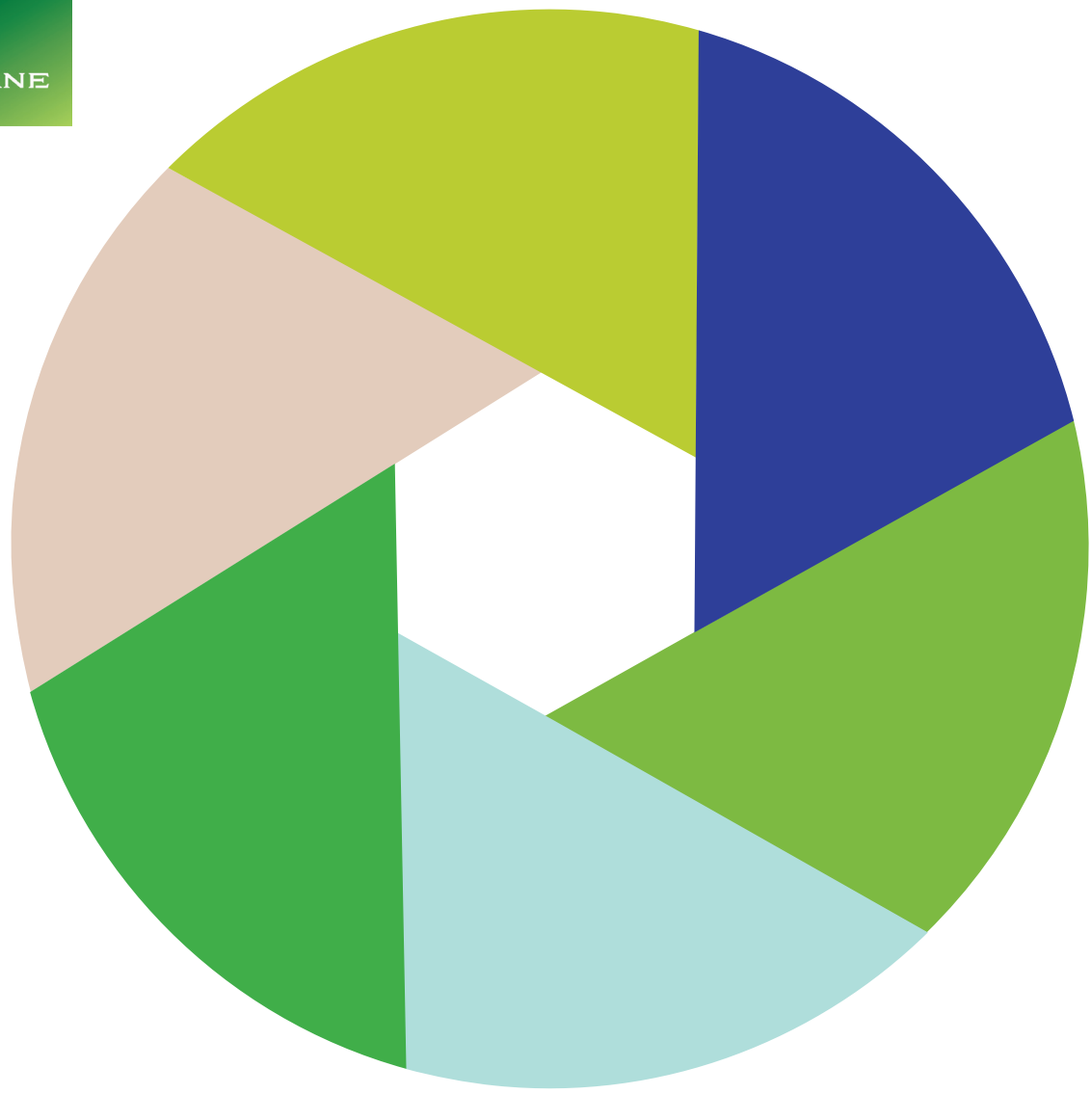
Raspberry: Raspberry flavors seem to be a very coherent category, but they actually embrace significant variations. The most significant is the level of the violet note, which can be noticeably exaggerated. Furaneol can counterbalance this effect, so levels of addition range from 600 ppm to 2,000 ppm.

Starfruit: Furaneol plays a modest part in realistic starfruit flavors. Two hundred ppm is a good starting point.

WE
CAPTURE
WHAT
MOVES

MANE

THE FIRST PHOTOGRAPHY
COMPETITION
BY MANE



CAPTURE WHAT MOVES

To support young creative talent, MANE is lauching a photo competition for recent graduates of art and photography schools. The group's next corporate campaign will showcase the competition's winning photographers.

Scan the QR code for more information.

THE CURRENT STATE OF COSMETIC INGREDIENTS IN THE FRAGRANCE REALM

The Fragrance Creators Association weighs in on MoCRA as well as the current challenges in the cosmetic ingredients category as it relates to fragrance.



MoCRA created a modern cosmetics regulatory framework designed to advance sound science, safety, innovation, and consumer confidence; image courtesy of Buyanskyy Production at Adobe Stock.

Reproduction in English or any other language of all or part of this article is strictly prohibited. © 2024 Allured Business Media.

Fragrance plays an important role in cosmetics and personal care products, serving as an essential input into products that nurture skin health and hygiene, empower self-expression and confidence, and deliver generational delight to people every day. *Perfumer & Flavorist*+ connected with the Fragrance Creators Association (Fragrance Creators) team to discuss the current state of cosmetic ingredients in the fragrance realm.



Fragrance Creators has been engaging closely with stakeholders, including the FDA and allied trades, to prepare for various fragrance-related aspects of the law, including a requirement for fragrance allergen disclosure; image courtesy of vetre at Adobe Stock.

What is the current state of cosmetic ingredients in the fragrance realm? Any driving factors shaping consumer demands and/or policy you are witnessing?

Across product categories, we see more people searching online for information about the ingredients in the products they purchase. Fragrance Creators supports a person's right to know and understand the information they are seeking, and we see this as a major opportunity to build consumer confidence by delivering high quality, accessible consumer education. This is why we continue to update The Fragrance Conservatory to include information on the history, safety, and stewardship of the fragrance industry, and also ingredient profiles that detail the scents, origins, synonyms, safety profiles and more of individual ingredients.

What are some of the main challenges or concerns in the cosmetic ingredients category as it relates to fragrance?

The passage of the Modernization of Cosmetics Regulation Act (MoCRA) in 2022 brought with it many changes to the cosmetic industry broadly and presented opportunities for fragrance in this area. While only one part of the broader law, implementation of the fragrance-related provisions of MoCRA represents a groundbreaking opportunity for us to advocate for regulations that are innovative and collaborative, with the consumer and the environment at the heart of all the work, leveraging technology to meet the needs of today while also allowing room to meet the needs of tomorrow.

Can you share a little background of the Modernization of Cosmetics Regulation Act in layman's terms? What is the current status of the act?

MoCRA was the first update to the federal cosmetics regulatory landscape in over 80 years. It created a modern cosmetics regulatory framework designed to advance sound science, safety, innovation, and consumer confidence. It was signed into law in December 2022 and since then, the Food and Drug Administration (FDA) has worked to implement the new regulatory requirements. Fragrance Creators has been engaging closely with stakeholders, including the FDA and allied trades, to prepare for various fragrance-related aspects of the law, including a requirement for fragrance allergen disclosure. We are preparing well in advance of the rulemaking's publication, which should occur in June 2024.



Across product categories, Fragrance Creators is seeing more people searching online for information about the ingredients in the products they purchase; image courtesy of Lightfield Studios at Adobe Stock.

Can you share some details regarding some of the current efforts Fragrance Creators is making to engage with Congress and policymakers on the fragrance regulatory front?

Fragrance Creators uses data driven insights and a holistic advocacy approach for all our priority issues, engaging with a wide range of stakeholders in Congress, at the Food and Drug Administration, the Environmental Protection Agency, the Department of Commerce, the U.S. Trade Representative, and in the White House National Economic Council to ensure that leaders across the entire federal government understand the importance of fragrance and the impacts various regulatory proposals can have on our section as well as on consumers. We continue to grow the Congressional Fragrance Caucus, a bipartisan platform for Congress to focus on issues that matter to the fragrance value chain. The Caucus focuses on a variety of high-priority issues, including implementation of the Lautenberg Chemical Safety Act, implementation of the Modernization of Cosmetics Regulation Act, and key tax and trade issues. Outside of the Caucus, Fragrance Creators regularly meets with Congressional leaders to discuss our priority issues, like funding for bill implementation, key tax incentives for research and development activities, and more.

Finally, how can the fragrance industry get involved with these efforts?

Join and actively engage with Fragrance Creators—from commercial leaders, to R&D, to public affairs, to regulatory, to communications, perfumers, sales, and more—diversity of perspective is both welcome and advantageous! We provide our members with access to Members of Congress, regulators, related industries, and others to ensure their voices are heard on key legislative, regulatory, and consumer-related matters. We hold exclusive members-only meetings with staff and leadership at key federal agencies to shape regulations, bring our members with us during advocacy events on Capitol Hill, and educate about the science and artistry behind fragrance during our Perfumery Event. This is all made possible through member expertise and information sharing. We encourage all companies along the fragrance value chain to get involved with Fragrance Creators to ensure that industry is speaking with one consistent voice to advance policy that is good for people, perfume, and the planet.

BESTALLY®
FLAVORS BUILD FRIENDSHIPS
luc.wang@bestally.com

OAMIC®
Extend your thinking
jpeng@oamicus.com
nehla@oamicus.com



Natural Flavor Ingredients

Bestally is a pioneer dedicated to developing natural flavor specialties and providing values to our partners since 2003. We focus on sustainable business which includes stable quality, fair prices and continuous supply. We devote ourselves to consistent ESG investment as our social responsibilities.

FEMA 2460 Ethyl Tiglate EU Natural (New)
FEMA 3420 Beta Damascenone EU Natural
FEMA 3243 Beta Damascone EU Natural (New)
FEMA 3761 5-Methyl-2-hepten-4-one EU Natural, Chiral
FEMA 2594 Alpha Ionone EU Natural, Chiral (+100 degree)
FEMA 3272 2,5-Dimethyl Pyrazine EU Natural
FEMA 3273 2,6-Dimethyl Pyrazine EU Natural
FEMA 3155 2-Ethyl-3-Methyl Pyrazine EU Natural
FEMA 3919 2-Ethyl-6-Methyl Pyrazine EU Natural (New)
FEMA 3149 2-Ethyl-3(5 or 6)-Dimethylpyrazine EU Natural

FEMA 2361 Delta Decalactone EU Natural, Chiral
FEMA 2401 Delta Dodecalactone EU Natural, Chiral
FEMA 2796 Gamma Octalactone EU Natural, Chiral
FEMA 2400 Gamma Dodecalactone EU Natural, Chiral
FEMA 3590 Delta Tetradecanlactone EU Natural, Chiral (New)
FEMA 3204 Sulfurol EU Natural
FEMA 3328 2-Acetyl Thiazole EU Natural
FEMA 3134 2-Isobutyl Thiazole EU Natural
FEMA 3555 2-Isopropyl-4-Methyl Thiazole EU Natural
FEMA 3680 2-Ethyl-4-Methyl Thiazole EU Natural (New)

CLEAN RESERVE'S H2EAU WATER-BASED FRAGRANCES TAP SENSITIVE SKIN MARKET

Discover how this non-irritating effect opens up the world of scent to consumers who might otherwise shy away from the fragrance category.



"Historically, water-based fragrances have not been long-lasting nor did they provide a great user experience as they were tacky upon application," says Greg Black, CEO of Clean Beauty Collective. "The formulation for Clean Reserve H2Eau is unique and made with Clean Reserve H2Eau Hydro-Tec, a proprietary formulation that blends water and oil seamlessly and lasts just as long as alcohol-based perfumes, absorbing quickly and cleanly into the skin."; image courtesy of Clean Reserve.

Reproduction in English or any other language of all or part of this article is strictly prohibited. © 2024 Allured Business Media.

Clean Reserve has unveiled its H2Eau collection of 8 scents comprising Hydro-Tec micro-emulsion technology that supports the stable mixing of fragrance oil and water, resulting in water-based scents that are compatible with sensitive skin.

The micro-emulsion technology reportedly ensures gentle, hydrating and long-lasting performance for the fragrances. This non-irritating effect opens up the world of scent to consumers who might otherwise shy away from the fragrance category.

"Historically, water-based fragrances have not been long-lasting nor did they provide a great user experience as they were tacky upon application," says Greg Black, CEO of Clean Beauty Collective. "The formulation for Clean Reserve H2Eau is unique and made with Clean Reserve H2Eau Hydro-Tec, a proprietary formulation that blends water and oil seamlessly and lasts just as long as alcohol-based perfumes, absorbing quickly and cleanly into the skin. Additionally, Clean Reserve H2Eau has a specific pump actuator that creates a beautiful spray pattern to help the fragrance dry quickly on skin and allows the fragrance to bloom vs prior water-based formulations on the market."

The range includes Amber Cashmere, with notes of rooibos tea and neroli, florals, amber, vanilla and musk; Brilliant Peony, with notes of pink peony, amber, florals, musk and sandalwood; Emerald Oasis, with notes of grapefruit, bergamot, vetiver, soft woods, orange blossoms and musk; Golden Citrus, with notes of mandarin, bergamot, orange blossom and neroli; Musk Noir, with notes of musk, lily, violet, vanilla, patchouli and sandalwood; Nectarine Petal, with notes of nectarine, chamomile, peach, amber and musk; Waterfall, with notes of apple blossoms, watermelon, vetiver, musk and aquatics; and Water Lotus, with notes of water lilies, cucumber water, muguet, peonies, amber and musk.

The scents have debuted on *Sephora.com* and *cleanbeauty.com* and will roll out in more than 250 Sephora U.S. doors on December 26.

Black notes, "For consumers with sensitive skin and dry skin, alcohol can have a drying effect and may irritate the skin. Alcohol-based fragrances don't typically harm the skin's barrier instantly but over time they can have a cumulative effect. Many sensitive skin consumers avoid fragrances for this reason. Clean Reserve H2Eau is an ethyl-alcohol free, water-based formula made with sustainable and renewable ingredients that help provide a hydrating, gentle and long-lasting fragrance experience. Clean Reserve H2Eau is a great alternative for consumers that have opted out of wearing fragrances due to skin sensitivities to alcohol."

He continues, "Water-based fragrances like Clean Reserve H2Eau, simply put, give consumers more



Brilliant Peony offers notes of pink peony, amber, florals, musk and sandalwood.

options. The scents were inspired by oceans and bodies of water around the world, featuring a water accord that is woven to add a dewy, sparkling feel throughout. The collection offers a wide array of olfactive profiles so there truly is something for everyone. Some of the key ingredients give a nod to wellness trends with uplifting notes like cucumber and citrus. We also used renewable and sustainable ingredients which consumers are seeking out in their products. And, while the fragrance technology lends itself to consumers with sensitive skin, it is also a great alternative for all fragrance lovers to experience a hydrating and truly long-lasting fragrance experience as they have come to expect with any quality perfume."

From a wider perspective, Black sees an opportunity to engage Gen Z shoppers, as well as those who value sustainability. Earlier this year, Circana noted that Gen Z is leading the recent increase in fragrance usage among U.S. consumers. In fact, in the last year Gen Z fragrance usage increased 5% to 83%.

The CEO explains, "The fragrance category will continue to grow based on consumer demand, especially with Gen Z as the driving force. Sustainability will continue to be on the forefront for clean products, not only for ingredients, but the packaging and manufacturing of the products. Clean fragrance should continue to see double digit growth over the next 3-5 years as younger consumers concerned with ingredient safety and protecting the environment add them to their personal perfume wardrobes."

Black adds, "The fine fragrance market has seen a strong growth coming out of the pandemic and will continue to grow over the next few years. While it is evident consumers are looking for fragrances that are wellness inspired to help improve emotional well-being, across the board, more consumers will expect fine fragrances to be more and more transparent. It is one of the last beauty categories within clean beauty to share the ingredients that falls within 'fragrance/parfum' oil on the ingredient list. Lastly, more and more consumers will continue to look to support quality perfumes brands that also give back and protect and the environment." p&f+

NUTRITIONAL FLAVOR INGREDIENT AND SOLUTION DEBUTS ON THE RISE

The latest investments and portfolio debuts in the nutritional ingredient space.



The latest investments and portfolio debuts in the nutritional ingredient space designed to meet growing consumer demand; image courtesy of radekcho at Adobe Stock.

Reproduction in English or any other language of all or part of this article is strictly prohibited. © 2024 Allured Business Media.



In September 2023, Symrise Asia Pacific debuted the Enhanced Naturals @SPark facility in Singapore said to be dedicated to naturalness innovation. Photo courtesy of Symrise.

The lasting effects of COVID-19 include the rise in demand for multi-functional food and beverage products. According to Global Market Insights[a], the health ingredients market size was valued at around $100.3 billion in 2022, and is estimated to reach $202.9 by 2032. As consumer demand continues to grow for nutritional/functional ingredients in their food, flavor houses are rising to the occasion to diversify their portfolios. Here are a few examples of innovation that debuted last year.

Investments & Portfolio Launches

In October 2023, Indena, a private Italian company that specializes in the identification, development and production of high-quality, innovative and effective active botanical principles for the pharmaceutical and health food industries, and dsm-firmenich have announced a strategic partnership. The collaboration is designed to pioneer the development of novel scientific evidence to support the effectiveness of natural solutions in the human health arena, leveraging both companies' values, visions and knowledge.

The partnership is dedicated to specific health areas and selected ingredients, including those to support immunity, vision, brain health, women's health, healthy aging and gut health. For all business areas, other than the solutions selected for the partnership, the two companies will proceed fully independently.

"This partnership has come about from a vision shared by Indena and dsm-firmenich: to identify and develop innovative solutions for human health, combining a deeply-rooted scientific background with the visionary capacity to imagine the future challenges of nutraceuticals," states Daniele Giavini, managing director at Indena. "Today's savvy consumer requires increasingly smarter products in terms of ingredients as well as formulation. Already in the next few months, our collaboration will bring products onto the market that combine and enhance the effectiveness of technologically advanced botanical extracts and ingredients from both companies. But above all, we want to launch a medium- and long-term planning process to build solutions that are not yet existing: solutions devised to respond to the increasingly sophisticated demands of a public wishing to take care of their own well-being with products that are scientifically studied,

[a]*https://www.gminsights.com/industry-analysis/health-ingredients-market*



In early 2023, Kalsec partnered with Willow Biosciences Inc. to enter into a follow-on Master Services Agreement (MSA) to develop an enzyme used in biocatalytic production of a new, advanced ingredient used in natural beverage applications; image courtesy of Nedrofly at Adobe Stock.

clinically tested and technologically ground-breaking, for proven effectiveness."

Just a month before, Symrise Asia Pacific debuted the Enhanced Naturals @SPark facility in Singapore said to be dedicated to naturalness innovation. Housed within SPark, the multi-functional innovation and technology center is designed to address the move of the food and beverage industry towards sustainably sourced, natural and plant-based alternatives.

The purpose-built labs in the Enhanced Naturals @SPark focus on thermal treatments, extraction and biotransformation. The facility is said to enable sustainable, natural, and plant-based innovation across categories such as culinary, dairy and beverages. The facility also offers a co-development area to allow co-creation with customers.

"With the investment in our Enhanced Naturals @ SPark, we are future-proofing our business. Also, we are well-positioning our offer of various specific natural solutions across all categories to our customers," said Medardo Villafana, technical director, Savory, Research & Technology, Asia Pacific.

Kapil Sethia, president, Food & Beverage, Asia Pacific said, "With the addition of the Enhanced Naturals @ SPark, we reiterate our focus on Innovation in the context of changing market and consumer dynamics. Enhanced Naturals gives us the technology & capability to collaborate with our customers on clean-label solutions, authenticity and elevate the use of natural ingredients. Consumers in Asia will progressively demand the use of natural ingredients in food & beverage products. With sustainable practices, we continue to strengthen our Taste, Nutrition & Health presence in the space of naturals that directly ties to the strategic objectives of Symrise as an Augmented Flavor House."

Earlier in the year, Kalsec partnered with Willow Biosciences Inc. (Willow), a biotechnology company focused on revolutionizing industrial manufacturing of pure, consistent and sustainable functional ingredients, to enter into a follow-on Master Services Agreement (MSA) to develop an enzyme used in biocatalytic production of a new, advanced ingredient used in natural beverage applications. This marks the second collaborative development program the two parties have

engaged on following the announcement of an MSA on November 8, 2022.

Willow's FutureGrown[b] technology platform is a fully integrated, proven solution for rapid enzyme and strain engineering, process development and scaled-up manufacturing that incorporates the latest technologies available for precision fermentation. Kalsec's projects focus on yeast, which, among other applications, is an ideal host for production of numerous ingredients for the food and beverage sector. By working closely with their customers, the development team at Kalsec has identified multiple potential opportunities for collaboration and innovation in this space.

Willow president and CEO Chris Savile, Ph.D. shared, "We are pleased to have executed this follow-on engagement with Kalsec and I'm proud of our R&D team's success in collaborating with Kalsec to rapidly attain our joint development goals. We look forward to further evidencing our technological capabilities through what we believe will be a similarly successful outcome for this next program."

Executive vice president, Global R&D, and chief innovation officer Roger Nahas, Ph.D., added, "We are excited to expand our partnership with Willow and leverage each party's significant domain expertise toward what we believe will be successful commercial-scale production in 2024. This work also supports Kalsec's purpose of unlocking the potential of people, nature and science to nurture the world."

[b]*FutureGrown is a trademark of Willow*

Plant-based

In the plant-based space, innovation regarding nutritional ingredients was explored by Symrise, which launched a range of diana food chickpea and aquafaba ingredients for plant-based applications to address the rising increase in vegan protein options in September 2023.

The company has created chickpea and aquafaba flakes designed to allow clear and understandable labeling, as "Aquafaba (chickpea water)" or "Chickpea." According to Symrise, both ingredients contain no EU allergen, while being gluten-free and non-GMO, and come with a long shelf-life up to eighteen months.

Sophie Helleux, product manager in the Naturals Business Unit of Symrise Food & Beverage said, "According to a recent Euromonitor study[c], forty-two percent of the population is restricting its consumption of animal-based products. These chickpea ingredients constitute another way in which Symrise is addressing the growing, trendy plant-based market. Aquafaba offers the perfect vegan alternative to egg yolk, while chickpea flakes improve the nutritional value."

[c]*https://www.google.com/url?q=https://www.euromonitor.com/article/the-rise-of-vegan-and-vegetarian-food&sa=D&source=docs&ust=1703191340324016&usg=AOvVaw3d5SE_aOMKw8t1W5nmFV8m*

CALL FOR SAMPLES AND TECHNICAL INFORMATION

Now manufactured in Middletown, NY

NATURAL ACETOIN
(DON'T GET CAUGHT SHORT AGAIN)
NATURAL IONONES
NATURAL LACTONES

Fleurchem, Inc.
www.Fleurchem.com
33 Sprague Ave • Middletown, NY 10940 USA • Phone: 845-341-2100 • Fax: 845-341-2121



Spate names the growing trends in alcoholic and non-alcoholic beverage categories and the driving factors behind consumer choices; image courtesy of lavrenkova at Adobe Stock.

Reproduction in English or any other language of all or part of this article is strictly prohibited. © 2024 Allured Business Media.

POPULAR TRENDS & INGREDIENTS IN BEVERAGE FLAVOR FORMULATION

See the growing trends in alcoholic and non-alcoholic beverage categories and the driving factors behind consumer choices.

At *Flavorcon* 2023, Spate, a machine intelligence platform, used consumer search data to deliver deep insights into consumer preferences in the snack market. As the platform continues to expand its research into food and beverage segments, Spate launched a Beverage Trends Report[a] taking a holistic approach to the beverage space to uncover the themes that are top of mind for consumers seeking ways to quench their thirst.

Here are the growing trends in alcoholic and non-alcoholic beverage categories and driving factors behind consumer choices according to Spate's research.

Alcoholic Beverage Trends

Espresso martinis took social media by storm, and this frenzy was reflected in ranking as #3 on Spate's Top Alcoholic Beverage chart. According to Spate, the spike in bottled sangria revealed an opportunity for wine brands to show their versatility. "Top searches reveal that no brand owns this market yet, and there is room for companies to get ahead for the summer of 2024. [..] With the rise of canned espresso martinis, palomas, and other cocktails, brands in the space should jump on the opportunity to bottle up another consumer-favorite beverage."

The platform also shares that the incline in Soju searches indicates a growing interest in Korean beverages in the United States. The report reads, "Despite only moderate year-over-year growth, this trend is a top driver of positive search volume change, revealing its cultural prominence. Brands with an Eastern perspective can leverage this trend by introducing Soju to Western consumers, educating them in the process."

[a]*https://hubs.la/Q02dnXKz0*

Top Alcoholic Beverage Trends

TOP TRENDS BY INCREASE IN SEARCH VOLUME

Trend	Volume	Increase↓	YOY
bloody mary	718.2K	**+102.1K**	+16.6%
sangria	565.7K	**+77.6K**	+15.9%
espresso martini	335.8K	**+68.6K**	+25.7%
aperol spritz	335.9K	**+66.7K**	+24.8%
paper plane	112.2K	**+24.4K**	+27.8%
french 75	187.0K	**+20.8K**	+12.5%
soju	371.1K	**+18.5K**	+5.3%
pisco sour	124.7K	**+18.1K**	+17.0%
prosecco	498.1K	**+15.8K**	+3.3%
old fashioned	607.4K	**+14.8K**	+2.5%

TOP TRENDS BY YEAR-ON-YEAR GROWTH

Trend	Volume	Increase	YOY↓
patxaran	480	+367	**+325.6%**
hard tea	10.2K	+5.7K	**+128.3%**
st germain spritz	2.3K	+1.1K	**+88.2%**
bottled spritz	480	+204	**+73.9%**
canned espresso martini	1.8K	+705	**+66.8%**
hugo spritz	15.5K	+5.9K	**+62.1%**
bottled sangria	12.4K	+4.5K	**+56.8%**
passion fruit liqueur	2.9K	+886	**+44.0%**
kir royale	21.2K	+6.3K	**+42.5%**
cynar spritz	550	+156	**+39.7%**

Source: Google Search data, year-over-year growth comparing the past 12 months ending October 2023 vs the 12 months prior (US Rising Clusters).

SPATE 8

Top Non-Alcoholic Beverage Trends

TOP TRENDS BY INCREASE IN SEARCH VOLUME

Trend	Volume	Increase↓	YOY
matcha	1.1M	**+108.1K**	+10.9%
mocktail	207.9K	**+61.5K**	+42.0%
kombucha	809.0K	**+56.3K**	+7.5%
non-alcoholic spirits	345.4K	**+39.6K**	+12.9%
yerba mate	253.9K	**+37.3K**	+17.2%
mushroom coffee	81.5K	**+34.7K**	+74.2%
pineapple juice	227.4K	**+32.9K**	+16.9%
cherry juice	165.9K	**+27.2K**	+19.7%
coconut water	300.8K	**+23.5K**	+8.5%
ginger shot	67.5K	**+19.2K**	+39.8%

TOP TRENDS BY YEAR-ON-YEAR GROWTH

Trend	Volume	Increase	YOY↓
sleepy girl mocktail	4.3K	+3.0K	**+221.1%**
probiotic soda	5.4K	+3.4K	**+163.1%**
adaptogen drink	2.4K	+1.3K	**+112.0%**
lemon lime soda	24.0K	+12.2K	**+104.0%**
mushroom coffee	81.5K	+34.7K	**+74.2%**
lemon mocktail	830	+344	**+70.6%**
pineapple mocktail	2.0K	+792	**+66.7%**
mango mocktail	920	+368	**+66.5%**
grapefruit mocktail	840	+331	**+65.1%**
blue lagoon mocktail	550	+214	**+63.7%**

Source: Google Search data, year-over-year growth comparing the past 12 months ending October 2023 vs the 12 months prior (US Rising Clusters).

SPATE 14

Non-Alcoholic Beverage Trends & Ingredients

The Sleepy Girl Mocktail gained viral traction on TikTok in April 2023, underscoring a consumer desire to maintain the cocktail ritual without the effects of alcohol. This trend particularly claims to support sleep hygiene and inflammation, with popular recipes including ingredients like tart cherry juice, magnesium, and prebiotic soda.

Spate claims that this trend presents an opportunity for healthy soda brands or supplement companies to capitalize on the trend by crafting their versions of the Sleepy Girl Mocktail, or other functional mocktails. Brands can further innovate by incorporating functional elements based on supplements already in their portfolio.

The report reads, "The steady growth in searches for adaptogen drinks over the past few years showcases the growing interest in functional beverages for consumers. Search queries such as best adaptogen drinks to replace alcohol, and adaptogen blend energy drinks highlight the consumer's interest in utilizing adaptogens as alternatives. This trend has a very low competition, with very few market leaders indicating massive opportunities for brands to establish themselves as leaders in development. Using science, studies, and transparent product messaging, brands can gain the attention of the modern consumer with an adaptogen alternative drink." The table on the right outlines the trends tracked in the non-alcoholic beverage ingredient category.

Spate POV

Here are the trends impacting search and how brands can attract new customers in the increasingly competitive beverage market according to Spate—

A Spate of Spritzes: The growing interest in spritzes beyond Aperol, indicates a consumer appreciation of sparkly flavors. Brands should consider ways to add a carbonated twist to their product offerings.

Cultural Libations: Growing trends like Soju, sangria, Patxaran, and more highlight the growing desire for consumers to travel with their taste buds. This is an opportunity for international brands to build their customer base in the US.

Function forward: Searches for ingredients like adaptogens, magnesium, and Himalayan pink salt alongside trends like probiotic soda, ginger shots, and espresso martinis highlight the growing demand for functional beverages. Brands should keep an eye on the top-growing ingredients in the supplement space to stay ahead of the functional beverage market.

Premium premades: Canned espresso martinis, bottled spritz, and bottled sangrias scratch the surface for premade beverage opportunities. Brands should keep an eye on the rising beverage trends with opportunities to bottle them up.

Top Alcoholic Beverage Ingredients

INGREDIENTS BY INCREASE IN SEARCH VOLUME

Trend	Volume	Increase↓	YOY
espresso	450.0K	+86.0K	+23.6%
lemon	448.9K	+10.8K	+2.5%
white tea	40.2K	+8.4K	+26.6%
whisky	93.9K	+8.1K	+9.4%
apple cider	120.1K	+7.4K	+6.6%
lychee	44.4K	+7.1K	+18.9%
elderflower	57.5K	+4.9K	+9.3%
edible glitter	20.2K	+4.8K	+31.3%
vanilla	45.0K	+4.4K	+10.9%
caramel	97.6K	+4.4K	+4.7%

INGREDIENTS BY YEAR-ON-YEAR GROWTH

Trend	Volume	Increase	YOY↓
glyphosate (free)	1.5K	+550	+56.1%
cane sugar	880	+314	+55.5%
olive brine	1.0K	+281	+41.4%
passionfruit	1.7K	+479	+40.6%
edible glitter	12.8K	+3.1K	+31.4%
watermelon juice	1.6K	+362	+30.2%
honeysuckle	1.6K	+363	+28.7%
chamoy	5.3K	+1.2K	+28.0%
yarrow	2.5K	+532	+27.5%
demerara sugar	4.0K	+853	+27.4%

Source: Google Search data, year-over-year growth comparing the past 12 months ending October 2023 vs the 12 months prior (US Rising Clusters). SPATE 11

Top Non-Alcoholic Beverage Ingredients

INGREDIENTS BY INCREASE IN SEARCH VOLUME

Trend	Volume	Increase↓	YOY
caffeine	1.6M	+111.7K	+7.6%
cherry	265.7K	+61.6K	+30.2%
mushroom	115.9K	+42.9K	+58.8%
ginger	923.9K	+40.3K	+4.6%
pineapple juice	294.3K	+36.8K	+14.3%
coconut	481.1K	+34.8K	+7.8%
cranberry	558.6K	+31.8K	+6.0%
coconut water	374.8K	+31.6K	+9.2%
olive	66.4K	+28.5K	+75.1%
matcha	487.5K	+24.4K	+5.3%

INGREDIENTS BY YEAR-ON-YEAR GROWTH

Trend	Volume	Increase	YOY↓
boba tea protein	10.8K	+5.9K	+123.5%
adaptogen	3.3K	+1.7K	+112.0%
magnesium	12.9K	+6.1K	+90.4%
himalayan pink salt	4.2K	+1.9K	+85.7%
caramel chocolate	21.7K	+9.8K	+82.3%
olive	66.4K	+28.5K	+75.1%
hazelnut milk	2.6K	+1.1K	+69.5%
beet root	6.3K	+2.6K	+69.3%
mushroom	115.9K	+42.9K	+58.8%
hawthorn	1.5K	+567	+58.8%

Source: Google Search data, year-over-year growth comparing the past 12 months ending October 2023 vs the 12 months prior (US Rising Clusters). SPATE 17





NATURALS
from the Heart

Difurfuryl Disulfide, Natural
FEMA 3146
~ dark roasted coffee

Furfuryl Mercaptan, Natural
FEMA 2493
~ fresh roasted coffee

Furfuryl Thioacetate, Natural
FEMA 3162
~ fresh roasted coffee; oxidatively stable

Methyl Furfuryl Disulfide, Natural
FEMA 3362
~ fresh roasted coffee

Coffee Booster 1, Natural (US)
~ fresh brewed coffee

Coffee Booster 2, Natural (US)
~ fresh brewed coffee

Natural Advantage

Naturals from the Name You Trust!

www.NatAdv.com 318-215-1456 | **For Sample Requests: Samples@NatAdv.com**

Technical Support and Warehousing in Europe and United Kingdom see RiversideAromatics.com



A fragrance is a mixture of odorant materials which, besides the overall odor, have specific characteristics like evaporation time (head, middle, dry-out), and strength; and each interaction will be specific to the dosage to each other; image courtesy of Simonforstock at Adobe Stock.

Reproduction in English or any other language of all or part of this article is strictly prohibited. © 2024 Allured Business Media.

Ask An Expert:
How Begin Your Fragrance Journey

Serge Oldenbourg shares how to become a perfumer and different avenues on where/how to train.



The pathway to becoming a perfumer is not easy to find, there are very few schools and even fewer opportunities available to the perfume lovers; image courtesy of dasom at Adobe Stock.

In our Ask An Expert series, senior perfumer Serge Oldenbourg has been fielding questions from fragrance professionals from around the world. The latest question comes from an aspiring perfumer looking to make their way into the field. Oldenbourg plans to answer this question in four parts. Here are the first two…

Part 1. How to become a perfumer?

I've been asked this question many times throughout my career. In my opinion, becoming a rocket scientist is easier than becoming a creative perfumer.

The pathway is not easy to find, there are very few schools and even fewer opportunities available to the perfume lovers. Not to mention the slim number of professional opportunities.



Oldenbourg shares, "Warning—being a perfumer is not as easy as it looks!"; image courtesy of Masson at Adobe Stock.

So before looking for "schooling" in perfumery creation, I would strongly suggest training your nose; sounds obvious but it is not a real part of the Western education system therefore you must force yourself to smell everything, not only what you like! Every object, every surrounding, every atmosphere in the subway or in the classroom. Try each time to describe to yourself the feelings these odors evoke to yourself and memorize them as emotionally as possible.

I use the word "yourself" many times because your experience with odors are personal and only you can provide the description. Warning—being a perfumer is not as easy as it looks!

Part 2: Where perfumers are educated?

This is addressed to the one who intends to work as a perfumer and possibly, become a member of the ISPC (International Society of Perfumer-Creators)!

A fragrance is a mixture of odorant materials which, besides the overall odor, have specific characteristics like evaporation time (head, middle, dry-out), and strength; and each interaction will be specific to the dosage to each other.

This is addressed to the one who intends to work as a perfumer and possibly, become a member of the ISPC!

A fragrance is a mixture of odorant materials which, besides the overall odor, have specific characteristics like evaporation time (head, middle, dry-out), and strength; and each interaction will be specific to the dosage to each other.

That is the beginning of perfumery learning. But there is more to learn. For example, one very important field is the regulatory aspect of using odorant materials; a perfumer has to be aware and care for healthy consideration for consumers. Where will you receive the necessary advice in this process?

There are 5 possibilities:

1. Schools recognized by the industry

These schools are organized and supported by some companies in our industry to provide qualified members for the F&F industry. Perfumers, flavorists and cosmeticians are taught the basic knowledge required to start a career. For perfumers, these will give the candidates the possibility to become junior perfumers under the direction of a senior perfumer.

These schools require a degree in science (generally chemistry) and have a program of 4 to 5 years. To my knowledge, there are only two of them ISIPCA and ESP in Paris (France).

2. Universities

Few universities opened courses in perfumery during the last ten years. Here only the basics of perfumery will be taught during three years. Same as previously the candidates will be starting their careers as junior perfumers under the direction of a senior perfumer.

Universities providing such courses are in France, Germany and to some extent in USA.

3. In-house schooling

The royal path to become a perfumer! Here teachers are confirmed and highly successful perfumers (Seniors or Masters). The process to get selected for these schools varies on the company's policies and their needs. Usually, companies try to educate future perfumers in order to compensate for the natural fluctuations like retirements. They expect the in-house trained perfumer to stay in the company for several years.

4. Web schooling/Online courses

You may have seen a number of ads on the web for "perfumery schools" providing information, materials and online teaching. They do not require any information about your level of knowledge in chemistry or understanding of regulations. How much to be learned is difficult to evaluate and requires definitively to be careful.



Before looking for "schooling" in perfumery creation, Oldenbourg strongly suggests training your nose; image courtesy of shchus at Adobe Stock.

5. Apprentice with a perfumer

This is certainly the most exciting way to become a perfumer (and the most traditional). Having the luck of being employed by an independent perfumer as his/her assistant, you can learn "in vivo" the use of materials, understand the structure of fragrances, the reason for differences in materials in regards to the final fragrance application, and so on.

Stay Tuned For...

Part 3: What knowledge do you need to make yours?
Part 4: What happens when you feel ready to start creating?

Have a question for our experts? Send an email to Jenna Troyli (jtroyli@allured.com).

p&f+

WORLD PERFUMERY CONGRESS
CONFERENCE TACKLES COMPETITIVE WHITE SPACE & CONSUMER CONNECTION

See the growing conference session and speaker lineup for the event scheduled for this summer in Geneva.



Early bird rates are now available for the three-day conference for $1,250, rates varying depending on the professional category. Photo credit: Peter Wynn Thompson.

Reproduction in English or any other language of all or part of this article is strictly prohibited. © 2024 Allured Business Media.



WPC is the global stage for fragrance creativity, ingredients, technology and business—providing the ideal forum for discussing the industry's latest issues and breakthroughs. Photo credit: Peter Wynn Thompson.

We are only four months away from the return of the *World Perfumery Congress* (*WPC*)! The time has finally come to register to gather, educate and connect with the key players in the global fragrance industry! On behalf of presenters American Society of Perfumers (ASP), and produced by Allured Business Media, we are proud to welcome the fragrance community to Geneva, Switzerland, June 24-27, 2024, at Palexpo.

>>Registration is now open.<<

Early bird rates are now available for the three-day conference for $1,250, rates varying depending on the professional category. Attendees can also snag tickets for 1-day expo hall only and group rate pricing. More details can be found on the registration page.

Discounted rate information for hotel accommodations can be found by visiting *worldperfumerycongress.com* to register at the early bird registration rate.

The event hosts an expo hall, networking opportunities and conference sessions. *WPC* is the global stage for fragrance creativity, ingredients, technology and business—providing the ideal forum for discussing the industry's latest issues and breakthroughs.

This year, *WPC* will introduce a new "Nose to Nose" series featuring soon-to-be-announced pairs of perfumer legends to take the stage to discuss their journey as well as share their perspective on the future of fragrance.

In preparation for *WPC*, we've connected with ASP board members, Lionel Nesbitt, Paula Kundu (**page 17**), Delphine Perdon Rupnow and Vince Kuczinski for new and seasoned attendees, what they're looking forward to most and how to maximize your experience.

One of the latest announced sessions is "Brands Aligning Consumer Olfactive Connection to Industry White Space" panel moderated by fragrance curator Mark Knitowski. The discussion will cover:

- How brands are connecting with the consumer
- How are brands getting insight into what the consumer wants olfactively



The event will feature a bustling expo hall featuring fragrance creators with unique raw materials from every corner of the globe. Photo credit: Peter Wynn Thompson.

- Navigating current trends to fit into what your consumers want and need
- The consumer connection and the competitive white space

Topics this year's conference will include:

- The Real Time Data That Made Pura a Unicorn with Pura CEO Bruno Lima and Chief Fragrance Experience Officer Mara Dumski
- The Making of American Legends with fragrance expert, taxonomist and author Michael Edwards
- The Perfumer's Take on the Artificial Intelligence Panel
- Understanding The Supply Chain of Natural Ingredients panel moderated by fragrance consultant and author Dominique Roques
- Which Claims are Winning in Fragrances with Euromonitor International with market researcher and consultant Aishwarya Rajpara
- The Evolution of American Fragrances with fragrance expert, taxonomist and author Michael Edwards
- Fragrance Stewardship with Fragrance Creators Association CEO and president Farah K. Ahmed and a to-be-announced counterpart
- ... and more to be announced!

The event will feature a bustling expo hall featuring fragrance creators, unique raw materials from every corner of the globe, the latest in equipment and technology for fragrance labs, testing, manufacturing and engineering, innovative packaging and scent-strip solutions, fragrance AI and software developers and more. Interested in exhibiting? Contact Paige Crist (pcrist@allured.com). See who is exhibiting!

Students are encouraged to attend the event and may qualify for a discounted rate. Please email a copy of your valid student ID or unofficial transcript from an accredited fragrance institution to wpc@allured.com to receive your discount code. Please allow 24 hours to respond.

Agrumaria Reggina





Discover our

Agrumaria Natural Platform

Experience the essence of vitality with our **Citrus Spark**. As your trusted partner for citrus-based ingredients, we specialize in providing clean label solutions, such as our citrus extracts, 100% FTNF specifically crafted to enhance your Flavors and Fragrance creations.

Embrace the authenticity of nature with our responsible and sustainable sourcing.

Discover citrus world at
agrumariareggina.it/ourcitrus

HOW YOU CAN TAKE THE STAGE AT *FLAVORCON* 2024

Here's how to submit your pitch, reserve a booth, or just get involved with *Flavorcon* 2024.



Flavorcon attendees are hungry to discover what is new, now and next in the industry, don't miss your chance to get your company in front of hundreds of industry-specific customers. Photo credit: Peter Wynn Thompson.

Reproduction in English or any other language of all or part of this article is strictly prohibited. © 2024 Allured Business Media.

Ready to head to Atlantic City, NJ, for *Flavorcon* 2024 this October? The two-day event is scheduled for October 8-9, 2024 at Harrah's Resort & Casino. Be sure to come a day early (October 7) for a pre-event live organoleptic panel seminar. By joining the mailing list (*www.flavorcon.com*) you can be sure to stay up-to-date on announced speakers, sessions, exhibitors and registration details.

>>>Join the mailing list<<<

The two-day conference will include a series of data/analytics presentations, interactive educational talks and panel discussions featuring some of the industry's leading experts. Attendees will come away inspired with new tools and connections to create flavorful wins and products consumers love. Have a speaker in mind to take the stage? Want to take the stage yourself? See below for how to submit your pitch.

Propose a Topic

Flavorcon attendees seek job-critical information to spur innovation and drive successful flavor and product development. Key topics include:

- New ingredients or applications for specific categories, such as sweet/confectionery, savory, baked goods, snacks and dairy
- Animal nutrition
- Artificial intelligence
- Trending ingredients and products
- Emerging markets & consumers
- Sensory research
- Digitizing flavor
- New chemistry affecting flavor
- Encapsulation/delivery systems
- Challenges in flavor (i.e., defining natural, safety and regulations)

All sessions must be educational and avoid promotional content. Limit 2 proposals per person. The



The session description must outline what the 30-minute session will cover, what attendees will walk away with from the session and why it is relevant. Photo credit: Peter Wynn Thompson.



Want to showcase your company's offerings or sponsor an aspect of the event? Contact Paige Crist (pcrist@allured.com). Photo credit: Peter Wynn Thompson.

deadline to submit your proposal is March 8, 2024. With these categories in mind, send your proposal, to conference moderator Jenna Troyli (jtroyli@allured.com) with the following information:

- Speaker name, title and company
- Speaker headshot
- Speaker bio
- Session title
- Session description (100-200 words): The session description must outline what the 30-minute session will cover, what attendees will walk away with from the session and why it is relevant.
- Samples: We ask that all sessions planning to use samples must provide all information before being accepted. Please outline the type of sample and how it needs to be distributed.

If you're looking to highlight your company, equipment, technology, ingredients and/or services, we have sponsored sessions available on the main stage! Contact Paige Crist (pcrist@allured.com) to discuss sponsored session opportunities.

How to Secure a Booth

Flavorcon also boasts an expo hall packed with the latest ingredients, technologies, equipment and services the flavor industry has to offer. Want to showcase your company's offerings or sponsor an aspect of the event? Contact Paige Crist (pcrist@allured.com). *Flavorcon* attendees are hungry to discover what is new, now and next in the industry, don't miss your chance to get your company in front of hundreds of industry-specific customers.

Registration Details

Visit *www.flavorcon.com* today to add your email address to the mailing list. Registration for the 2024 event includes breakfast and lunch on October 8 and 9, as well as happy hour on day one (October 8). FMCG professionals, flavor chemists, food scientists, purchasers and allied formulation/creation specialists pay a special rate. British Society of Flavourists, Society of Flavor Chemists and Women in Flavor and Fragrance Commerce receive a discounted rate to attend!

Interested to see who frequents *Flavorcon*? We have a list of past attending companies[a] looking to network, learn and grow within the industry available from *Flavorcon* 2023.

[a]*https://www.perfumerflavorist.com/events/event-coverage/flavorcon/news/22872806/update-look-whos-coming-to-flavorcon-2023-so-far*



WPC

2024 WORLD PERFUMERY CONGRESS

The Sensory Event for Fragrance Leaders

June 25-27, 2024
Geneva, Switzerland

FRAGRANCE FORWARD: WHERE GLOBAL INNOVATION AND CREATIVITY MEET

HOSTED BY perfumer & flavorist

PRESENTED BY American Society of Perfumers

PRODUCED BY Allured business media

AD INDEX

Advertiser	Web site	Page
Agrumaria Reggina	*www.agrumariareggina.it*	43
Aurochemicals	*www.aurochemicals.com*	C3
Berjé, Inc.	*www.berjeinc.com*	C2
Fleurchem, Inc.	*www.fleurchem.com*	31
Hangzhou Grascent Co. Ltd.	*www.hangzhougrascent.com*	9
John Wright	*www.johnrwright.com*	19
Mane	*www.mane.com*	21
MG International Fragrance Company	*www.mgessentialingredients.com*	5
Natural Advantage	*www.natadv.com*	35
OAMIC	*www.oamicus.com*	25
OQEMA	*www.oqema.com/en/*	7
Penta Manufacturing Co.	*www.pentamfg.com*	C4
Symrise	*www.symrise.com*	1
Vigon International, Inc.	*www.vigon.com*	3



Vanillin, Natural



One product. Endless possibilities.

With its smooth notes and creamy texture, it's no surprise that Vanillin, Natural can be found in hundreds of flavor and fragrance combinations. But endless possibilities need a supply to match.

At Aurochemicals, Vanillin, Natural is at the top of our list. We're stocked so you'll never have to delay your production.

All natural - 99% pure.

aurochemicals.com | 1-866-875-AURO

The Natural Choice for Flavor and Fragrance Ingredients

Developing Better Products through Natural Chemistry

Penta Manufacturing Company is Family Owned and Operated for Over 40 Years.

Here is a partial listing of our Family of Coffee inspired ingredients utilized in flavor & fragrance formulations.

For detailed paperwork on all of our items consult our web site at www.pentamfg.com

- FEMA 2147 BENZYL MERCAPTAN
- FEMA 2486 FENUGREEK OLEORESIN
- FEMA 3062 2-THIENYL MERCAPTAN
- FEMA 3154 2-ETHYL-5,6-METHYL PYRAZINE
- FEMA 3158 2-FURANMETHANETHIOL FORMATE
- FEMA 3199 5-METHYL-2-PHENYL-2-HEXENAL
- FEMA 3236 MENTHOFURAN
- FEMA 3256 BENZOTHIAZOLE
- FEMA 3266 4,5-DIHYDRO-3(2H)THIOPHENONE
- FEMA 3305 3-METHYL-1,2-CYCLOHEXADIONE
- FEMA 3306 NUTTY PYRAZINE
- FEMA 3337 DIFURFURYL ETHER
- FEMA 3346 FURFURYL PROPIONATE
- FEMA 3366 2-METHYL-5-(METHYLTHIO)FURAN
- FEMA 3436 THYMYL METHYL ETHER
- FEMA 3555 2-ISOPROPYL-4-METHYL THIAZOLE
- FEMA 3680 2-ETHYL-4-METHYL THIAZOLE
- FEMA 3949 2-METHYL-3-(METHYLTHIO)FURAN
- FEMA 4179 2-METHYL FURAN
- FEMA 4538 METHYL FURFURYL MERCAPTOPROPIONATE
- FEMA 4676 1-(2-FURFURYLTHIO) PROPANONE
- FLAVIS 04.020 3,5-XYLENOL
- FLAVIS 04.089 3-ACETYLPYRIDINE
- 2,3,5-TRIMETHYL PHENOL

For a complete list of all our natural, natural identical and synthetic ingredients visit us at www.pentamfg.com

Penta®

Penta Manufacturing Company

A Division of Penta International Corporation

4 Dedrick Place, West Caldwell, NJ 07006 ■ Phone: (973) 740-2300 ■ Fax: (973) 740-1839

E-Mail: sales@pentamfg.com ■ Web: www.pentamfg.com

USDA FEMA 100 A Century of Great Taste MEMBER FDA U.S. Food and Drug Administration APPROVED K CERTIFIED HALAL ISLAMIC FOOD AND NUTRITION COUNCIL OF AMERICA