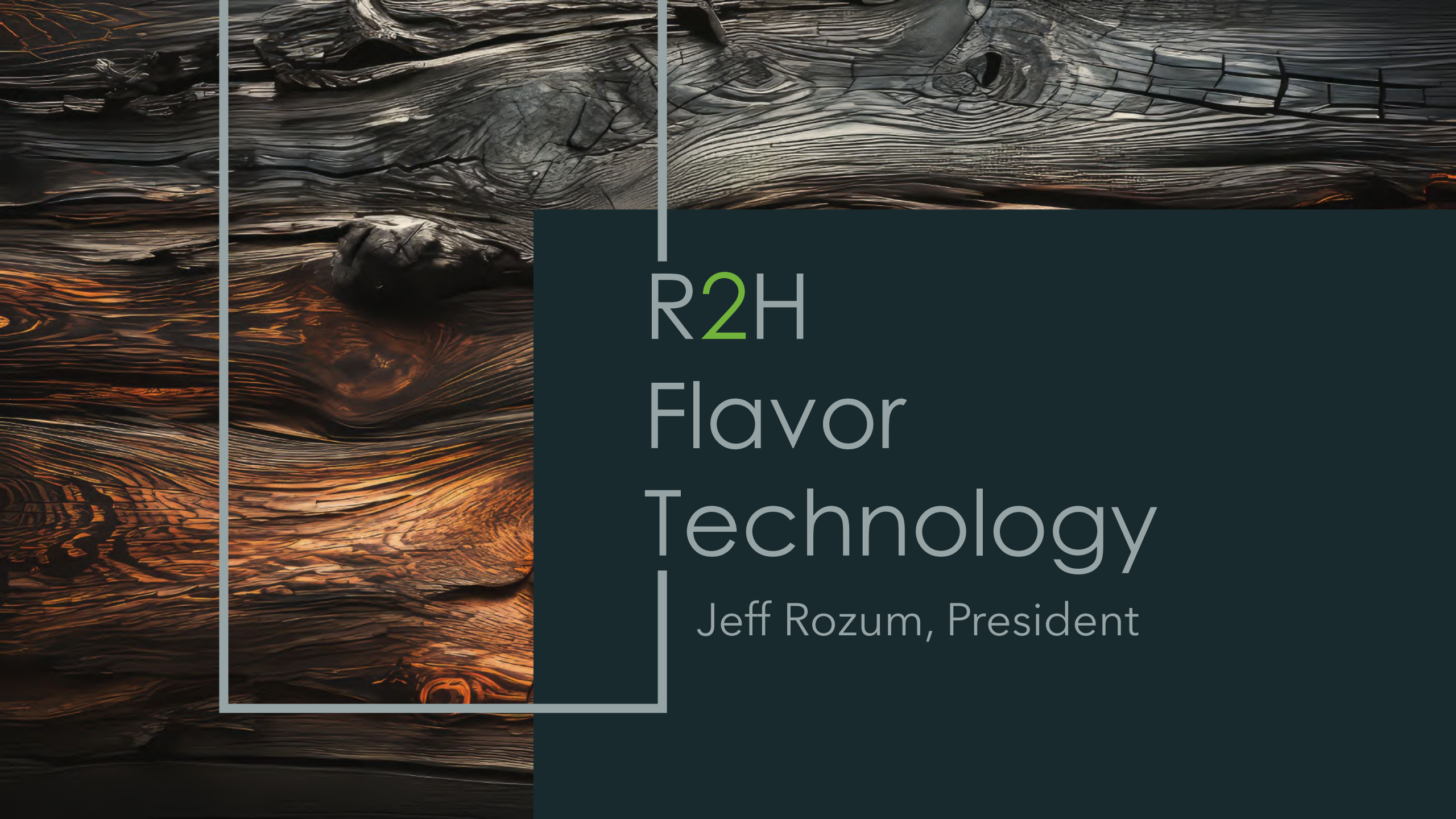


R2H Flavor Technology

Jeff Rozum, President


R2H
FLAVOR TECH
Est. 2016 MANITOWOC, WISCONSIN

Update

We have added 20,000 square feet to our facility. This will allow for more storage of finished product. We are also adding another rotary kiln and evaporator for production. The addition of new equipment will increase our daily production to 12,000 gallons a day of 25 brix smoke.











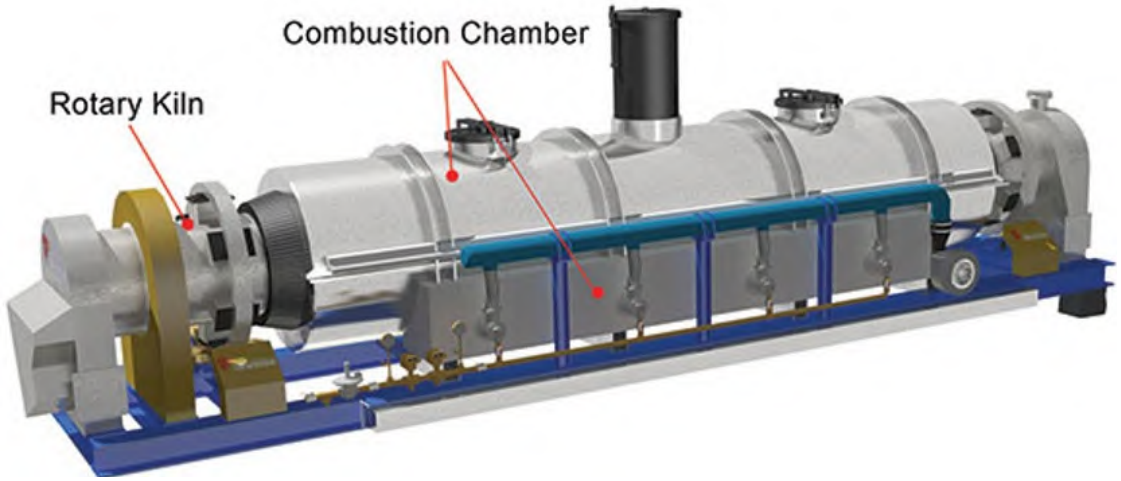


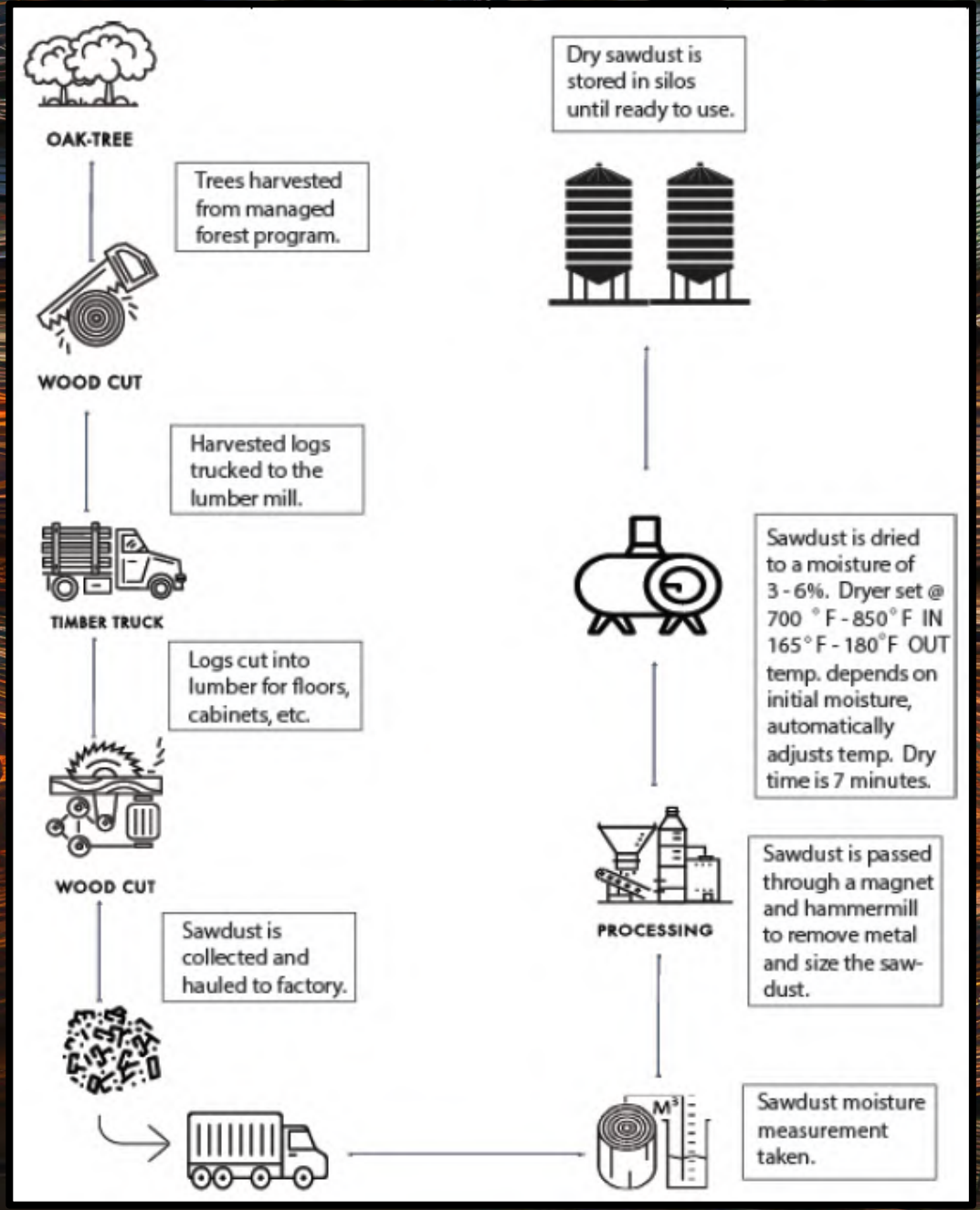


Smoke production is an extremely niche industry; there are currently only a handful of companies manufacturing smoke flavors from hardwood sawdust. Since R2H was incorporated almost 10 years ago, there have not been any new smoke manufacturers added to the market.

The technology to make the smoke has not changed in the last 20 years. A rotary kiln is used to do a dry distillation, and the smoke is collected and infused into water. What we can change is process flow and the material we put into the reactor. We can also directly smoke things that can be dissolved in water for example sugar, maltodextrin, yeast, and salt.

We are limited to what we can put into the reactor by the particle size and bulk density of the material. We can't process anything that is too light or too big. We are currently interested in looking at hemp hearts, eucalyptus, and almond wood as feed material.





One of the unique properties of our system is that our reactors run independently of each other. This allows us to run a different sawdust on each reactor which maximizes flexibility and efficiency.

- Current technology to optimize production
- Reduce environmental emissions
- Raw material from lumber mill operations; reduces waste and eliminates the need to cut down trees for chips or logs for traditional smokehouse operations.

Smoke Flavor is Always on the Menu

Natural Smoke flavor is always trending, and R2H Flavor Technology has the products for all of your applications. Smoky flavors are gaining momentum across menus and packaged foods. From bacon and barbecue snacks to cheese and craft beverages nothing triggers an emotional response stronger than smoked foods. Smoke signals depth and authenticity as it connects familiar comfort with more adventurous and layered taste experiences.

FROM THE BEGINNING…
MEAT + SMOKE = HAPPINESS



Consumer Trends

Sweet Applications - A hint of smoke in sweet treats is becoming more popular. We are seeing more smoked chocolate, caramel sauce, smoked cinnamon, marshmallows and finished desserts such as tiramisu and strawberry shortcake.

Smoked Ingredients - Traditionally smoked ingredients such as sugar, maltodextrin, yeast, and salt are gaining momentum, especially considering the recent changes in EU regulations regarding smoke flavors.

Cocktails - Smoked cocktails have been on the menu for a few years and are gaining popularity. Mesquite smoke in Tequila for mezcal or Oak smoke for Burbon, we have a smoke for that!

Sauce & Marinades - Beyond BBQ sauce, smoke can be used in a wide variety of other things including hot sauce, balsamic vinegar, soy sauce, honey, honey mustard, and external or injection marinades.

Artisanal Meats - We are seeing more dry smoke products being used in dry sausages and mature meats which imparts smoky or savory notes. Dry smoke is perfect for applications that cannot tolerate extra moisture.











Market Opportunities



PET FOOD

The pet food market covers a wide range of products and has greatly diversified in recent decades. The global pet food market is growing annually at a steady pace. Total sales were estimated to reach a peak of over 123 billion UDS in 2022.



FLAVOR MODULATION

We have several products that can be used to enhance desirable flavors or mask undesirable ones. These can be used in a variety of sweet or savory applications



SMOKED CHEESE

Smoked cheese is gaining popularity in the United States and other markets. We have many unique products that work well with processed cheese, cheese sauce and cheese powder.



SMOKED INGREDIENTS

Smoked ingredients are becoming an interesting and useful alternative in markets under EU regulations. We have seen growth in these items in the EU, the UK and other adjacent markets.

COMMISSION IMPLEMENTING REGULATION (EU) 2024/2067
of 31 July 2024
amending Implementing Regulation (EU) No 1321/2013 as regards the deletion of entries SF-001 to SF-010 from the Union list of authorised smoke flavouring primary products

The following decision was made regarding the SF numbers associated with smoke flavouring. It is important to note that R2H Flavor Technology was never assigned an SF number for our products and are NOT banned in the EU.

For smoke flavouring primary products SF-001, SF-002, SF-003, SF-004, SF-005, SF-006, SF-008 and SF-009, applications for the renewal of authorisation were submitted in June 2022. The Commission refused the renewal of the authorisation of smoke flavouring primary products SF-001, SF-002, SF-003, SF-004, SF-005, SF-006, SF-008 and SF-009 by Commission Implementing Decisions (EU) 2024/2071(3), (EU) 2024/2066(4), (EU) 2024/2073(5), (EU) 2024/2072(6), (EU) 2024/2079(7), (EU) 2024/2078(8), (EU) 2024/2069(9)and (EU) 2024/2077(10).

Regulatory Compliance

Wood smoke produced by the dry distillation of wood sawdust or chips has been used to preserve meat and other foodstuffs for centuries. The process of capturing this vaporous smoke and infusing it into water or other foods is poorly understood and can be manufactured in a variety of ways. Due to advances in the type of equipment used and the manufacturing process, wood smoke from sawdust can be produced in a batch process and used to infuse water in such a way that the resultant product falls outside the definition of a ‘smoke flavoring’ as defined by EFSA of the EU. Smoke Flavor is defined as per the following:

REGULATION (EC) No 1334/2008 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL
of 16 December 2008
on flavourings and certain food ingredients with flavouring properties for use in and on foods and amending Council Regulation (EEC) No 1601/91, Regulations (EC) No 2232/96 and (EC) No 110/2008 and Directive 2000/13/EC

Article 3
Definitions
(f) ‘smoke flavouring’ shall mean a product obtained by fractionation and purification of a condensed smoke yielding primary smoke condensates, primary tar fractions and/or derived smoke flavourings as defined in points (1), (2) and (4) of Article 3 of Regulation (EC) No 2065/2003
Article 3
Definitions
For the purposes of this Regulation, the definitions laid down in Directive 88/388/EEC and Regulation (EC) No 178/2002 shall apply.
The following definitions shall also apply:
1. "primary smoke condensate" shall refer to the purified water-based part of condensed smoke and shall fall within the definition of "smoke flavourings";
2. "primary tar fraction" shall refer to the purified fraction of the water-insoluble high-density tar phase of condensed smoke and shall fall within the definition of "smoke flavourings";
3. "primary products" shall refer to primary smoke condensates and primary tar fractions;
4. "derived smoke flavourings" shall refer to flavourings produced as a result of the further processing of primary products and which are used or intended to be used in or on foods in order to impart smoke flavour to those foods.

allowed to settle for several days. After settling, this smoke infused water is then filtered (Annex II)and can be concentrated (evaporation-Annex II) or dried (Annex II) on a maltodextrin carrier which can then be used in other food to impart flavor. This product is not fractionated into water based primary products and primary tar fractions nor purified as described in EC No 1334/2008(Article 3 (2.) (f)). These batch made products are clearly defined as a "flavouring preparation" according to Regulation (EC) No 1334/2008 (Article 3 (2.) (d)):

Article 3

(d)'flavouring preparation' shall mean a product, other than a flavouring substance, obtained from:
(i)food by appropriate physical, enzymatic or microbiological processes either in the raw state of the material or after processing for human consumption by one or more of the traditional food preparation processes listed in Annex II;
and/or
(ii)material of vegetable, animal or microbiological origin, other than food, by appropriate physical, enzymatic or microbiological processes, the material being taken as such or prepared by one or more of the traditional food preparation processes listed in Annex II;

ANNEX II

List of traditional food preparation processes
Chopping
Coating
Heating, cooking, baking, frying
(up to 240 °C at atmospheric pressure) and pressure cooking (up to 120 °C)
Cooling
Cutting
Distillation/rectification
Drying
Emulsification
Evaporation
Extraction, incl. solvent extraction in accordance with Directive 88/344/EEC
Fermentation
Filtration
Grinding
Infusion
Microbiological processes
Mixing
Peeling
Percolation
Pressing
Refrigeration/Freezing Roasting/Grilling
Squeezing
Steeping

Flavouring Preparation

The flexibility and design of our advanced system of smoke manufacturing allows for the continuous production of smoke flavors as described in (EC) No 1334/2008 as well as the production of products defined as a “flavouring preparation”. Due to this improved equipment design, other foodstuff can be added to the water in a batch process to produce smoked ingredients including smoked sugar in water, smoked salt in water and smoked maltodextrin in water. These smoked ingredients are produced in the same way as other traditionally smoked products including salt or sugar would be produced. Traditional smoke vapor is created and put into direct contact with salt (in water--defined as “food” in the EU) and infuses the salt dissolved in the water which results in a smoked salt water that can be concentrated or dried for use in other food to impart traditional smoke flavor.

REGULATION (EC) No 178/2002 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 28 January 2002

Laying down the general principles and requirements of food law, establishing the European Food Safety Authority and laying down procedures in matters of food safety

Article 2

Definition of ‘food’

For the purposes of this Regulation, ‘food’ (or ‘foodstuff’) means any substance or product, whether processed, partially processed or unprocessed, intended to be, or reasonably expected to be ingested by humans. ‘Food’ includes drink, chewing gum and any substance, including water, intentionally incorporated into the food during its manufacture, preparation or treatment. It includes water after the point of compliance as defined in Article 6 of Directive 98/83/EC and without prejudice to the requirements of Directives 80/778/EEC and 98/83/EC.

Signature Smoke Profiles

















Beyond Traditional Smoking

ADVANCING SAFETY

- We currently hold SQF level 3 Certification which is a SQFI recognized scheme.
- We are also subject to state FDA regulations which require periodic inspections.

CONSISTENCY

- Our system is set up in such a way that allows us to tightly control our production. We monitor sawdust moisture, particle size and reactor temperature to make sure our smoke is the same batch after batch.

PRODUCTION STANDARDS

- We maintain strict standards for all our finished products. Each lot is analyzed prior to being filled into the final packaging. Results of product analysis are logged, and a statistical analysis is done annually to ensure products fall within acceptable limits.


Questions



ขอบคุณครับ

Jeff Rozum
President
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