

Umami - Discover the 5th taste

November 24 – November 26 , 2010

Sponsor: Umami Information Center (U I C) , Koppert Cress, Schmidt Zeevis, Nice to Meat, De Ruyter Seeds (Monsanto)

Organized by: Apex Inc./ Tokyo, Fresh Retail, Scelta Mushrooms BV.

Reported by Kumiko Ninomiya and Ana San Gabriel

Presentation: Umami – Discover the 5th Taste

Place I: Koppert Cress(*)

Attendees: Chefs, food consultants, flavor houses, food industries (Kikkoman, Monsanto, etc), culinary press (about 70 people)

Apex/Fresh Retail (Henk de Bruin and Henk Van Dongen) and Scelta Mushrooms BV organized an umami workshop at Koppert Cress in association with the UIC to teach audience about umami taste and its physiological benefits.

(*)Koppert Cress produces and tests a great variety of microvegetables that are distributed to all over Europe and USA. Koppert Cress targets mainly chefs, restaurants, caterers and food services with a collection of seeds cresses that bring a unique sensation, taste, fragrance, feel, or appearance so that chefs can play with their creativity.



Organizers Henk Van Dongen & Henk de Bruin from Fresh Retail and Apex Inc (from left)

The chef **Dick Middelweerd** , owner chef of **De Treeswijkhoeve** visited Japan last February. During his demonstration, he explained the influence that Japan and the umami taste had on his cuisine by using katsuobushi flakes on the top of an umami dish that has become his trademark at his restaurant.



Chef Dick Middelweerd and his dish

Chef **Akira Oshima of Hotel Okura** described his forty-year experience as a Japanese food chef in Holland. Trying to manage the first Japanese restaurant in Amsterdam, he witnessed how Japanese food passed from being completely unknown to becoming a usual commodity.

'Today, most Dutch know what is sushi and sashimi, the most popular dishes of the Japanese cuisine,' he explained said proudly during the seminar. Akira Oshima also showed the different kinds and qualities of konbu seaweed and katsuobushi flakes, which he explained have to be made every morning fresh in his restaurant for dashi.



Chef Akira Oshima

The director of the **Umami Inforamtion Center (UIC)**, Kumiko Ninomiya introduced the bases of umami taste, discovery of umami substances, content of glutamate in foods, and made umami tasting with ripe and unripe tomato and two Gouda cheeses of different maturation time, so that everyone could understand the essence of umami perception.

As a Scientific Affairs Representative of UIC, Ana San Gabriel presented the science behind umami taste, how we taste umami and why is a preferable taste with the consequent physiological effects of glutamate in our body. The umami of certain peptides was discussed, but peptides do not impart a strong umami sensation as glutamate does.



Kumiko Ninomiya and Ana San Gabriel (from left)

The **Vegetable Seeds Division of Monsanto** talked about the general qualities of tomatoes and how by directed breeding, the company can produce tomatoes with different desirable properties. Among those desirable properties there is the content of free glutamate. One particular variety has up to 400 mg of free glutamate per 100 g of tomato.



Monsanto representative

During the workshop, Chef Guus Vredenburg who visited the UIC in Tokyo last summer introduced several umami dishes such as beef tea & tomato, and dried aged beef with cheese.



Chef Guus Vredenburg

Impressions

Although we could see an unquestionable enthusiasm for Japanese food culture and ingredients, to our surprise, most of the concerns of the participants were

not related to umami taste directly, but to the safety of glutamate.

Place II: Scelta Mushrooms Institute (*)

(Similar attendees to Koppert Cress workshop)



Mr. Jan Klerken speaking at The Scelta Institute.

The owner of Scelta Mushrooms Mr. Jan Klerken introduced the history of the company and the variety of products that have been appearing over the years. Mushrooms have a vast variety of compounds, from umami substances, to functional compounds, that have applications in the food and supplement industry.

(*) Scelta Mushrooms

‘Scelta’ means ‘choice’ in Italian. This company was created in 1993 from a family based mushroom farm. Now it became a world mushroom producer with a great variety of products born from mushrooms, fresh, frozen, dried, concentrate, canned, etc. Since this is a product rich in umami and the founder of Scelta Mushrooms Mr. Jan Klerken believes in the umami concept, they became recently the first foreign supporting member of the UIC.

The presentation of Kumiko Ninomiya and Ana San Gabriel in Scelta Institute was the same to the one in Koppert Cress.



Peter Klosse, lecturer at Maastricht University and restaurant owner, reviewed aspects of umami taste that the UIC did not mention. For instance, umami taste is one of the features that make a restaurant popular, or umami taste is used to improve the quality of life of the elderly because the sense of taste decreases with age.

It was unfortunate that we could not communicate more extensively with him since the UIC knows first hand some of the work recently done in Japanese hospitals to increase the food intake of hospitalized elders by using umami seasoning. Peter Klosse also referred to 'garum' the fermented fish sauce that was used in ancient Rome. One of the authors from a recent publication at the Journal of Food Composition Analysis that searched the content of free amino acids in garum, Miro Smriga, is also Scientific Affairs representative of the UIC.

Overall impressions:

We felt that there were many representatives from the food industry trying to learn earnestly about umami taste so that they can replace MSG by food ingredients. There was a special interest to decrease the level of sodium in foods using umami substances because of its potential effect to increase blood pressure. And once more, in this second workshop, there was an even stronger sensation of the wariness on MSG safety with questions such as does MSG produce allergy? The mission of UIC is to disseminate the 'right information' of umami, which is the taste of glutamate, inosinate and guanylate; and although the UIC can respond questions about MSG safety, the organization in charge of safety issues is the International Glutamate Information Service (<http://www.glutamate.org/>). The fact that there is a bad perception of glutamate from MSG but not from glutamate from foods is difficult to understand for the UIC because they are the same molecule, the first one is the purest form of umami and the other is mixed with other ingredients. This gave us the impression that there was a general low understanding of the umami concept, and a low basic background on nutrition, proteins, and amino acids. Probably those misconceptions represent the misconceptions of the general public. But the food industry has the responsibility to educate, and not confuse and alarm consumers even further. It is important that we all provide accurate and clear information especially in marketing strategies. Employees and food producers will profit by having an accurate nutrition and technical background of food ingredients. We hope that our presentation cleared some of the suspicions about umami substances.