

SS1-2 Taste-active Compounds in Japanese Foods

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A century ago, Dr. Kikunae Ikeda, a Japanese chemist, discovered that salt of L-Glutamate (Glu) was the taste-active compound of the soup stock of the seaweed, *kombu*. Then, he invented the process of Glu production by protein degradation to supply new seasoning to make foods tasty for the improvement of nutritional status of people in Japan. He named the quality of taste elicited by Glu ‘umami taste’. Japanese scientists also found another major umami compound, 5’-purime mononucleotide, and the synergistic umami enhancement between these umami compounds. Because umami taste is important in traditional Japanese cuisine, it might be quite natural that Japanese scientists made these findings. After that, taste-active compounds in foods have been investigated using quantitative analysis of composition and human sensory evaluation. In Japan, investigations especially on seafoods and fermented seasonings were performed. In many cases, umami compounds and amino acids were identified as taste-active compounds. According to these results, it is clear that human has chosen foods abundant in umami compounds, seaweed, tomato *etc.*. Many efforts have been made to enrich umami compounds by fermentation, soy sauce, soybean paste, cured-ham *etc.*. Furthermore, human has utilized umami synergistic enhancement by mixing food materials, *e.g.* seaweed and dried bonito of Japanese soup stock, tomato, onion and meat of western soup stock. Thus, human in all over the world has sought umami taste to take nutrients with pleasantness for a long time.