

In memoriam*Anica Lovrenčić-Sabolović**BSc in Chemistry, MSc in Biotechnology**(May 25, 1932 – April 28, 2013)*

In early morning hours of 28 April 2013 Anica Lovrenčić-Sabolović, MSc passed away in her family house in Koprivnica, the town where she spent most of her life, after long-term health problems and chronic diseases. Despite her sufferings, she struggled with her illness with great courage until the very end.

She was born on 25 May 1932 in Koprivnica, a town in Podravina, the northwest region of Croatia. After completion of high school education in Koprivnica Gymnasium in 1951, she began her graduate study in chemistry at the University of Zagreb, Croatia. She graduated on 24 June 1957 at the Department of Chemical Technology of the Faculty of Chemistry, Technology and Mining of the University of Zagreb, with the graduation thesis on the preparation of ready-to-cook canned vegetables (under mentorship of Mihajlo Mautner). She was among the first fellows (stipendiaries) of the food factory Podravka, based in Koprivnica, Croatia. Today, Podravka is among the leading companies of the southeastern, central and eastern Europe. Soon after graduation, Anica Lovrenčić-Sabolović started to work in Podravka on 1 July 1957. At that time mass production of instant soups had already been planned in Podravka. As the first graduated engineer in chemistry in Koprivnica and Podravka, Anica Lovrenčić-Sabolović joined the laboratory team led by Zlata Bartl, professor of chemistry. She was describing those days with the following words: 'At the beginning I did anything and everything, as there were only few of us working around.' According to the notes in her laboratory book, it can be learned that Anica Lovrenčić-Sabolović in less than two weeks after employment got an assignment under the working title *Preparation of vegetable soups*. Based on the initial recipes of Zlata Bartl, she started to work on the improvement of the recipe of mushroom soup with noodles. Back then, in 1957 in the former state (Yugoslavia), there was no other example for production of dehydrated soups. The experts in Podravka had only limited access to professional literature data and collected a few samples of instant soups packed in bags that they had bought while travelling abroad.

In the years 1957 and 1958 Anica Lovrenčić-Sabolović took an active part in the formulations of chicken and beef soups with noodles, chicken and beef bouillon cubes, and the meat extract. Beef meat leftovers from meat extract processing made possible to create a new product – a beef goulash. According to her own witnessing, the State Institute of Health Care was supposed to issue an official quality certificate of the product confirming that it fulfilled microbiological safety, and organoleptic and food quality requirements. Nevertheless, the product did not get the clearance to be labelled as a 'Beef Goulash', as it contained previously processed meat. Anica Lovrenčić-Sabolović got an idea to call the product 'Meat Meal á la Beef Goulash', and the product was registered on 22 February 1958 under the same brand name and the registration number 02-56/1 1958. Today, Podravka's popular 'Beef Goulash' is still produced according to its original recipe.

In the year 1963 Anica Lovrenčić-Sabolović became the Principal Technologist in charge of the development of dehydrated soups, noodles, and the all-purpose seasoning Vegeta 40 (later renamed Vegeta). Vegeta is a condiment which is a mixture of spices and various vegetables, launched on the market as an original Podravka product in 1959. During 1963 and in the following years, she intensified the work on the improvement of Vegeta recipe. Namely, dehydrated mushrooms and tomatoes, two ingredients of the initial mix, caused the seasoning to be highly hygroscopic. By removing these ingredients and adjusting the proportions of the other ingredients, differently for domestic and foreign markets, the well-known seasoning Vegeta flavour was created, which has been valued and used since then by millions of consumers both within and outside the national borders. The result of the improved recipe, as well as the concomitant work on the product advertising was a huge commercial step up of selling Vegeta, which rose from 117 tonnes in 1962 to approx. 1000 tonnes in 1964.

In 1963 Anica Lovrenčić-Sabolović also started to work on an innovative programme of dehydrated soups. The programme entitled *Ten New Soups* was an enterprise entirely done in the Podravka laboratory. It was based on the knowledge and experience that the Podravka experts gained during the study visits abroad. Starting from the foreign

dehydrated soup samples, the new soups were adjusted to domestic customers' needs. Anica Lovrenčić-Sabolović was the prominent researcher in a team of experts and acted as the officially responsible person of the programme. The programme was accompanied by substantial financial investments in Podravka's production departments as well as, for that time in the former state, a groundbreaking marketing and product promotion. The programme *Ten New Soups* contained the following items: Cream of Onion Soup, Cream of Celery Soup, Cream of Pea Soup with Smoked Meat, Cream of Potato Soup, Cream of Leek Soup, Beef Tail Soup, Cream of Mushroom Soup, French Soup, Spring Vegetable Soup, and Hunter's Soup. Anica Lovrenčić-Sabolović was the main author of both, the recipes and the technological processes of the products. The set of all ten soups was exhibited at the Zagreb International Autumn Fair in 1964 with a huge success, which placed Podravka company, until then only a small local food factory, at the top of the soup concentrate producers in the former state. At the Fair, Podravka was awarded five medals of quality for its soups, of which two were gold and one silver. Reporting about that success in a local weekly newspaper *Glas Podravine (The Voice of Podravina)* of 1 January 1965, an article appeared in which was stated that '... the happiest was a young chemical engineer and technologist Anica Sabolović as an author of the three awarded soups ...', and also: '... we cannot escape the impression that particularly this year she achieved something that she and others will remember forever, that she succeeded in her work for her factory and justified the given trust'. Four soups of those 'new ten' from 1964 have been produced ever since and can still be found on the shelves in our shops.



Anica Lovrenčić-Sabolović and her masterpiece *Ten New Soups* by Podravka with the journalist Vladimir Kuzel during an interview for a weekly newspaper *The Voice of Podravina* in 1964

As in early 1960s the West was less accessible to the experts from the former state for the specialised study visits, Anica Lovrenčić-Sabolović went for professional training in former socialist states, that is, Poland, Czechoslovakia and East Germany, to learn particular technological know-how about developed technological processes for preparation of soup extracts and dehydrated soups. After the possibilities for vocational training and specialisation in the western countries had opened up, she continued to extend her knowledge and experience during visits and numerous collaborations with food producers in Switzerland, Austria, West Germany, Netherlands, United States of America, and Japan.

After 1964 Podravka launched on the market the following new dehydrated soups: Californian Soup, Minestrone Soup (in 1967), Chicken Noddle Soup, Viennese Soup (soup with liver balls), Home-Made Meat Soup, Celestine Soup (in 1969), Golden Chicken Noodle Soup (in 1972), Golden Beef Noodle Soup (in 1973), Prague Potato Soup, Wedding-Feast Soup (Semolina Gnocchi Soup), Podravina Soup (soup with meat balls), Vegetable Soup, Chicken Soup, meat bouillon cubes (in 1975) and Gourmet Soup (in 1977). Most of these soups are produced nowadays as well. In the creation of all these soups, Anica Lovrenčić-Sabolović worked as a team leader and the main investigator.

On 21 December 1979, Anica Lovrenčić-Sabolović defended her MSc Thesis entitled *Analytical determination of monosodium glutamate in dehydrated soups* at, at that time, Faculty of Technology of the University of Zagreb, and thus gained scientific degree Master of Biotechnical Sciences, Biotechnology Field (under mentorship of Professor Matilda Grüner).

Due to taking over the management tasks, in the mid-1970s, Anica Lovrenčić-Sabolović gradually stopped working in the laboratory and the research in invention of new products, for which she always claimed that she did it by pouring all her soul and heart into it. In those days working women were expected (as it mostly still is the case) to be

primarily good and operationally capable workers, which was ever harder as you climbed up the ladder of decision-making positions. In 1974, Anica Lovrenčić-Sabolović became the director of an organisation unit of Final Production (soups, food seasonings, canned meat, coffee, fruit and baby formulas), the heart of Podravka Company, which made about seventy per cent of the total factory profit. In 1976, she advanced to the director of an organisation unit of Food Industry, and in 1979 to one of the six deputies of the Company's General Director, who constituted the Management Board, where she served as a deputy production manager. From that position, in 1985, she left the Company and retired early with already damaged health.

For her work merits Anica Lovrenčić-Sabolović was awarded in 1966 by the Koprivnica Community with the award *7 November 1943* and in 1973 the state order of labour, the *Order of Labour with Golden Wreath (II rank)*.

Anica Lovrenčić-Sabolović was certainly one of the most meritorious participants in building up and developing Podravka food company in Koprivnica, during its most flourishing period from the end 1950s to the early 1980s. As an author of meal recipes and innovative technological processes, she is most estimable for the development of well-known dehydrated Podravka soups which were created in that successful period. Podravka was left with a legacy of more than 30 of her original recipes and new technological procedures in food production. Anica Lovrenčić-Sabolović was a markedly communicative, creative, and determined hard-working person, and a skillful business negotiator. She had the strength of a leader, which is seldom an easy role, with sternness in appearance and, at the same time, compassion in deeds, which are the characteristics of good persons. Her virtue of a real humanist was reflected in her noticeable engagement in the improvement of women's social position. Thus, she was a chair of the women's organisation in Koprivnica and Podravka, and during 1970s served as a member of the Executive Committee of the Presidency of the Republic Conference for the Social Activity of Women. At the local level in 1960s, she was engaged as the alderman of the Community Assembly of the city of Koprivnica. She was devoted wife and mother of two daughters, whom she had always been a support and left them legacy of a reliable and dedicated professionalism so that they both evolved into distinctive and successful research workers and experts, each one in her own field of work.

Anica Lovrenčić-Sabolović, BSc in Chemistry, MSc in Biotechnology, ended up her life on earth in spring 2013, in the same place where it all started, in her parental house in Gibanična 8, Koprivnica, Croatia, where she closed her eyes forever in early morning hours surrounded by her closest family members.

She will be remembered with eternal gratitude and honour for her professional and human legacy, as an exceptional expert in the field of chemical technology, food technology and biotechnology, as well as an active women's rights defender.

Martina Piasek and Grozdana Bogdanić