Curriculum Vitae of Dr. Luisa Dalla Costa

Dr. Dalla Costa graduated in Agricultural Sciences at the University of Padua in March 1984 and obtained her PhD at the same university in June 1989. She has been a confirmed researcher at the Faculty of Agriculture of the University of Udine since December 1990, and deals specifically with vegetable and flower production.

During her career she has focused on plant physiology, taking care of the various aspects of agronomic practices connected to nitrogen nutrition and its interaction with water availability, conducting studies mainly on potato, pepper, radicchio, tomato, spinach, following previous research on field crops -like soy, sunflower and maize.

Subsequently she mainly worked on the optimization of irrigation and nitrogen nutrition, studying the effects of water availability and soil fertility on nitrogen uptake and water use efficiency and on the effects of nitrogen on growth, production and quality. It then she concentrated on methods of early diagnosis of the nutritional status of the crop; soil nitrogen balance, plant uptake and leaching losses; influence of fertilization and other cultivation techniques on the qualitative characteristics of vegetables intended for fresh consumption and post-harvest forcing. She also explored new agronomic techniques like conservation vegetable crops. She studied the valorization of local crops, with particular interest in niche vegetables, beans and garlic, carrying out investigations on local cultivars of these vegetable plants. Particular interest is reserved in the latest research to the quality of the technical production itinerary, focusing on the use of organic matrices (composted of plant residues) in combination with other methods of crop nutrition (fertigation).

The quality of the product is also an object of interest, focusing on radicchio and other leafy vegetables (carbohydrate and nitrate content in radicchio, nitrate content in lamb's lettuce, response to fertilization in lettuce, quality and shelf life in squash), on crops soil and in particular the nutritional balances within the nutrient solutions, as well as the growing conditions and the influence on the qualitative components of from the production. In recent years she worked on conservation horticulture, a promising agricultural practice that allows better protection of soil fertility, as well as an increase in the nutritional availability of the soil, helping to limit losses due to nutrients leaching to deep soil horizons.

After February 2016 she has been studying saffron agronomic techniques, with repeated tests in several locations in the Friuli Venezia Giulia Region, and particular attention to the qualitative traits of the spice obtained.

She has also devoted herself to the study of the application of biostimulants with extracts from macroalgae and microalgae to vegetable crops, such as lettuce tomato cauliflower and fennel, and also flower crops (Cyclamen and Dipladenia), to the agronomic technique of Sweet Potato (Ipomea batatas) and to the evaluation of varieties - populations of onions (free pollination of Cavasso and Val Cosa red onion).

In 2021-2022 he conducted experiments on the use of organic fertilizers from animal origin (wool pellets) to increase the sustainability of nitrogen crop fertilization.

She teaches the course of "Vegetable crops and flowers", an annual course of 8 credits, since 1998; conducts experiments and follows degree theses in the field of Vegetable crops, greenhouse crops and horticultural nursery”, at the Di4A Department of Agrofood, Agriculture of the University of Udine.