



# VEGETABLE RESEARCH IN THE ENTIRE FOOD CHAIN

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From genes to consumers



AARHUS UNIVERSITY

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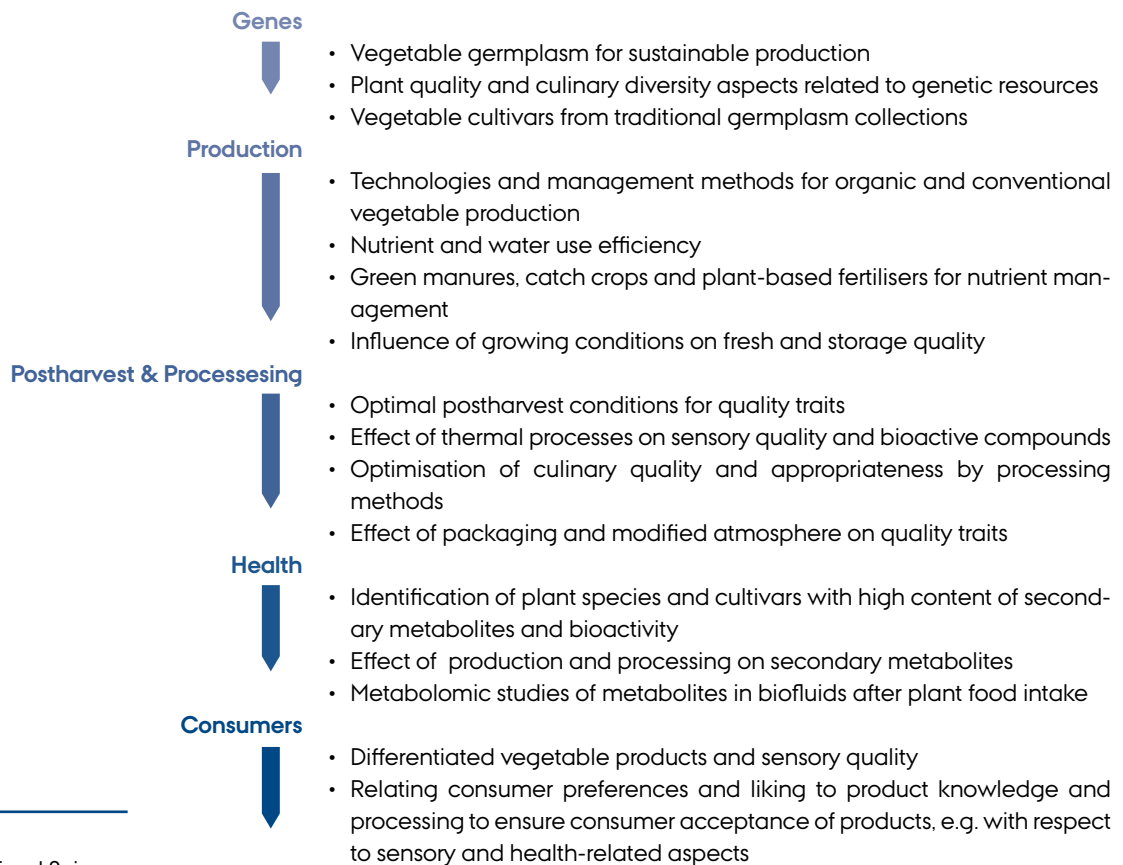
Vegetable research at the Department of Food Science focuses on new solutions and technologies that increase the efficiency, reduce the impact on the environment of vegetable production, and ensure quality, diversity and health potential of end products.

Key areas of research include understanding of physiological processes and growth of vegetables including medicinal plants and their interactions with the horticultural conditions in organic and conventional cropping systems. Research includes cultivation techniques, growth physiology, cultivar assessment and product quality, nutrient and pest management, irrigation and reduction of waste. The overall focus is on sustainable production systems.

Research also focuses on the characterisation of vegetables as a raw material i.e. postharvest technology, changes induced by processing and storage and health-related characteristics of the plant products. In addition, metabolomic studies of the health potential and the sensory properties of vegetables are important research areas in the Department.

Research is both basic and strategic and is carried out in close collaboration with Danish and international food industries.

### VEGETABLE RESEARCH IN THE ENTIRE FOOD PRODUCTION CHAIN



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#### CONTACT

Department of Food Science:  
food@au.dk

Aarhus University  
Kirstinebjergvej 10  
P.O. Box 102  
DK-5792 Aarslev, Denmark

Head of Department  
Michelle Williams  
Tel. +45 8715 6000

[www.food.au.dk](http://www.food.au.dk)

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#### RESEARCH FACILITIES

Department research facilities include field-based machinery, harvesting and grading equipment, storage facilities, and approx. 100 ha of land, including a unique 20 ha organic research area for vegetables and orchard trees.

Laboratory facilities include non-destructive technologies (FT-NIR, Videometry), equipment for UV-B and UV-C treatments, minirhizotrons for root studies and soil sampling to a depth of 3 metres, specialised facilities for irrigation and organic/conventional pest control treatments, texture analyser, equipment for mass spectrometry (GC-MS, LC-MS), HPLC, low-field and high-field NMR (600 MHz), in vitro laboratories for cell studies, and professional sensory science facilities.