

## INTRODUCTION

The industrial cultivation of tomatoes has caused a decline in the quality of the product and this, together with the growing demand for natural and organic products, is motivating tomato cultivation to be increasingly produced organically.

The excess of pesticides and inorganic fertilizers is one of the main challenges of organic farming.

*“The Sustainable Development Goals (SDG) are the blueprints to achieve a better and more sustainable future for all”*. United Nations



## CULTIVATION METHODS

Fertilization in organic farming is mainly based on the use of organic matter (manure, compost, vermicompost and green manures).

Certain fungicides (those of natural origin) are allowed, although it is recommended to reduce the use of insecticides.

Regulation 2021/1165: Products and substances for use in organic production

## AIMS

- To review the advantages and disadvantages of organic and conventional tomatoes
- To study the SDG'S of promoting improved nutrition, sustainable agriculture and environmental protection (SDG2 - Zero hunger and SDG13 - Climate action)
- To know the current situation and cultivation methods of organic tomatoes
- To explore consumers opinion on the cultivation of organic tomatoes.



## SURVEY

N = 304 people surveyed

- 78 % have CONSUMED organic tomatoes sometimes
- 22 % have never consumed organic tomatoes due to the higher price (38 %) for lack of knowledge (35 %)
- 85 % consider HEALTHIER to eat organic products due to the lack of chemical agents (61 %)
- 92 % would BUY organic products  
81 % of them would pay more to consume organic
- 79 % of VEGETARIANS live in RURAL areas, but only 21 % of them in urban areas

## ORGANIC

- Prohibition of inorganic fertilizers
- Use of natural pesticides
- Nitrogen oxide pollution increases
- Higher average concentrations of Calcium, Copper and Zinc
- Levels of carotenoids richer in lycopene
- More microbiological contamination

## CONVENCIONAL

- High dependence on inorganic fertilizers
- Relatively intensive irrigation
- Lower average concentration of Manganese
- Levels of carotenoids similar or lower in lycopene
- Less microbiological contamination

The differences in nitrate residues in vegetables when comparing organic and conventional production are NOT clear



## CONCLUSIONS

- ✓ Comparison of organic tomatoes versus conventional is very contradictory. In general, organic tomatoes have higher values of vitamin C, phenolic compounds and less contamination of agrochemicals.
- ✓ Organic tomatoes can contribute to achieving SDGs 2 and 11, but persistent pesticides are still found and the use of manure can promote heavy metal levels and pathogenic microorganisms.
- ✓ Consumers would be willing to pay more to buy organic tomatoes and the motivation of being chemical-free is the main reason.
- ✓ There are not enough studies with scientific evidence to affirm that organic tomatoes are safer and more nutritious than those produced conventionally.