

# MICROGREENS

## Food Safety of Raw Microgreens

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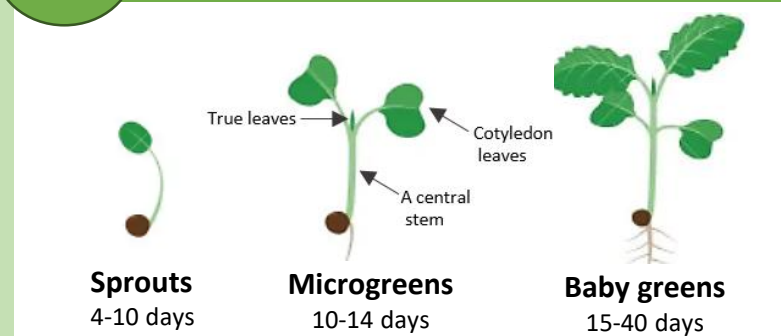
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### Objectives

- To determinate what applications into food business
- To have knowledge of the main microorganisms
- To define the good practices to improve innocuity
- To know what methods to clean and disinfect

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### Microgreens



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### Food Business: New Diet

↑ Vitamins ↑ Minerals ↑ Polyphenols and Glucosinolates



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### Microgreens at Home

Perforated tray

Substrate and nutrients: peat

Disinfected seeds from cooperative



Manual irrigation: tap water

Natural light

Disinfected tools

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### Urban Farming: Hydroponic

Vertical production: shelves

Substrate and nutrients: fiber and water

Disinfected seeds



Automatic irrigation: water recirculation

Artificial light and ventilation

Disinfected clothes, tools...

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### Conclusions

- Interest for nutritional properties: micronutrients and bioactive compounds.
- Susceptible to *Salmonella spp*, *E. coli*, *L. monocytogenes*, *Shigella spp* and Norovirus.
- Substrate, localization and ubication are important for home cultivation. However, the main factors in urban cultivation are disinfection seeds, quality water and substrate conditions.
- Hard to eliminate pathogenic microorganisms. Disinfection procedures should be applied before development.