

**Title** Vacuum drying and hybrid technologies  
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#### **Abstract**

**Purpose of the review:** This article reviews the development of technologies and methods applicable to vacuum drying of fruits and vegetables, with particular focus on vacuum drying technologies and combined vacuum drying systems.

**Findings:** Fruits and vegetables have been suggested to offer health benefits beyond basic nutritional requirements. Their valuable constituents require that various factors such as the nature of the food material to be dried, energy efficiency and cost of the process are considered when selecting or designing appropriate drying processes. A system that minimises exposure to light, oxidation and heat may help conserve critical bioactive compounds. Although vacuum drying is thought to be too costly for large-scale production of a commodity, it may be more applicable to the small-scale production of high-valued crops (e.g. herbs).

**Directions for future research:** Combined vacuum drying systems have the potential to increase effectiveness, quality and energy efficiency.