

VOLTZ MARAÎCHAGE

Microgreens represent a specific segment of crop production. They can be grown by diversified market gardeners, specialist producers or urban or vertical farms... There is no predefined model. Produced and sold on an ultra-local scale, their freshness and nutritional benefits are well established. For example, their antioxidant content is 10 times higher than that of conventional leafy vegetables. Brassicas stand out for their high potassium, calcium, iron and zinc content, while red cabbage is rich in vitamins C,

E, K, etc.

# Growing guide for MICROGREENS

# **CONTROLLED SEED QUALITY**

The quality and traceability of our seeds are at the heart of our work. We have selected seeds specifically for growing microgreens, which have undergone bacteriological analysis. We would like to emphasise that the seeds we sell from this range are intended for the production of microgreens only. Our suppliers are rigorously selected on the basis of their ability to meet our quality requirements.

All batches of seeds received are tested, in particular for the absence of food-borne pathogens (Escherichia coli, Listeria monocytogenes, Salmonella spp). Germination capacity and specific purity tests are also carried out by suppliers and our in-house quality department (laboratory at our storage and logistics site near Angers, France). Analyses in approved laboratories complete this work.

Our seeds are received and packaged on our premises in such a way as to avoid any risk of internal contamination, in accordance with our microgreens management procedure.

The results of the analyses are then checked to validate the conformity of the seed lot before it is released for sale. A control sample of each batch of seeds is also kept on our site.

Our microgreens seeds are packed at a dedicated workstation in hermetically sealed packaging. The seeds are stored under controlled conditions of temperature and humidity.

Finally, our secure barcode scanning system guarantees total traceability of our products from receipt to delivery.



## **GROWING TIPS**

For some varieties, the seeds can be immersed in water beforehand to speed up germination and ensure that it is uniform.

Sowing density varies according to growing methods and growers' wishes. Most microgreens are grown indoors: the seeds are sown on hydroponic mats (cotton, hemp, recycled paper, etc.). They can also be grown outdoors or in potting soil (mixed with peat moss, coconut fibre, vermiculite and compost if required).

After sowing, the growing medium must not dry out, otherwise germination of the seeds will be delayed or blocked. After 7 to 21 days, the microgreens can be harvested.

If they have been grown in trays, they are sometimes sold as such; they can also be cut, flush with the roots, for presentation in trays or bunches.

Microgreens growers must pay particular attention to hygiene and compliance with health regulations. Microgreens are grown for a very short time, and the humidity and sowing conditions are highly conducive to the development of fungi and bacteria. The equipment, which is generally reusable, must therefore be perfectly clean. Good light and ventilation are required, but the investment to get started is not very substantial.

As each production system is unique, a trial phase is recommended before commercial production.



# **GROWING TIPS**

	PRE-SOAK	HARVEST (complete cycle including germination)	TASTE	CHALLENGES
ALFALFA Medicago sativa	No	8 to 14 days	Between parsley and celery	
AMARANTH RED Amaranthus tricolor	No	18 to 26 days	Slightly earthy, sweet	
<b>BEETROOT</b> Beta vulgaris conditiva	No	14 to 20 days	A little earthy, sweeter than a vegetable	
BORAGE Borago officinalis	Yes	14 to 16 days	Cucumber/melon	
CABBAGE BROCCOLI CALABRESE Brassica oleracea var. italica	No	8 to 15 days	Mild cabbage	
CABBAGE KOHLRABI Brassica oleracea var. gongylodes L.	No	8 to 15 days	Similar to red cabbage,	
CORIANDER Coriandrum sativum	No	10 to 15 days	fresh and earthy	
CORN (POP-CORN) Zea mays subsp. Saccharata	12-24 h	12 to 18 days	Mild	
CRESS Lepidium sativum	No	10 to 13 days	Fresh coriander	Short shelf life
DILL Anethum graveolens	No	15 to 20 days	Lemony and aniseed	
KALE RED RUSSIAN Brassica oleracea var. sabellica	No	8 to 15 days	Cabbage, slightly sweet	
KOMATSUNA RED Brassica rapa Pervidis	No	8 to 13 days	Very spicy	
LEEK Allium ampeloprasum var. porrum	No	13 to 16 days	Acidic	Rapid germination but slower growth
LOVAGE Levisticum officinalis	No	20 to 30 days	Between cabbage and radish	
MIZUNA GREEN OR RED Brassica rapa nipposinica	No	10 to 14 days	Mild	
MUSTARD WHITE OR RED Sinapis alba	No	9 to 14 days	Spicy	Yellowing of cotyledons if harvested too late
NASTURTIUM Tropaeolum tuberosum	6-24 h	15 to 20 days	Spicy	
PEA MAPLE LEAFY Pisum Sativum	+/- 8 h	8 to 12 days	Very aromatic, garlicky	More delicate growth in hot conditions
RADISH CHINESE ROSE Raphanus sativus	No	9 to 12 days	Delicious, raw pea flavour	Stems fibrous and less crisp if harvested after cotyledon stage
ROCKET CULTIVATED Eruca sativa	No	7 to 10 days	Spicy	
SORREL RED VEINS Rumex sanguineus	No	35 to 50 days	Medium spicy	
SUNFLOWER (ORNEMENTAL) Helianthus annuus	4-8 h	7 to 10 days	Invigorating, peppery, spicy	Very susceptible to mould (remains on leaves during growth)

## GENERAL INFORMATION

Microgreens and germinated seed are very different products. Germinated seed refers to the first stage of seed germination, when the root develops but not the leaf. At this stage, the seed is between 0 and 7 days old. The microgreen is the next stage of the plant, between the germinated seed and the young shoot. It is between 7 and 21 days old. It is cut either at the cotyledon stage or at the stage of the first true leaves, depending on the species. The seed is not eaten.

Please note that the legislation governing sprouted seeds is very strict and complies with food industry standards. This is not the case for the production of microgreens.





# **CERTIFICATION**

All our seeds in the microgreens range are certified ORGANIC by ECOCERT FR-BIO-01 and/or available in untreated form.

However, if the producer grows the microgreens above ground, he cannot be certified organic for this production.

# A TEAM AT YOUR DISPOSAL!

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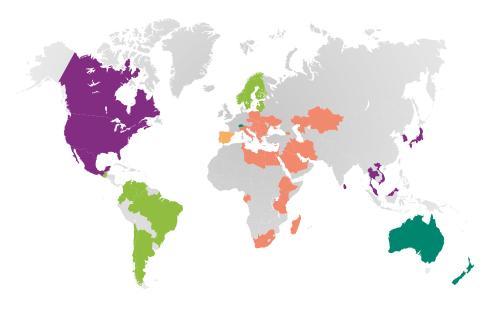
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