Greenresilient Factsheet





Wintamines

Harvest winter vegetables in your own garden, raised bed and unheated greenhouse

It must be every hobby gardener's dream to harvest fresh vegetables from their own garden, raised bed or unheated greenhouse in the winter. The good news: this dream can become reality! There is a whole range of vegetables that can withstand even the harshest winter frosts and thus make a vitamin-rich harvest possible even during the winter months. You will need to plant the vegetables early enough in autumn in order for the plants to be pre-cultivated in pots and still have sufficient time to root into the soil. Using well-developed, robust vegetable plants is of course a basic prerequisite, because you cannot expect too much plant growth in the winter months.

Ten selected portraits of winter vegetables

This handy guide containing 10 selected portraits of vegetables is meant to encourage you to try grow some of these vegetables in the winter:



Arugula (wild)

Cultivation:	Only water when dry; do not keep the plant too wet
Frost hardy until:	-12 °C
Winter protection:	In garden or raised bed: cover it with cold frames or mini-hoops. No cover necessary in unheated greenhouses.
Harvest:	Continuously harvest the strongest leaves
Use:	In fresh salads, as a herb
Characteristics:	Slightly spicy flavour, perennial plant





Spinach

Cultivation:	Water regularly
Frost hardy until:	-15 °C
Winter protection:	Not required
Harvest:	Continuously harvest the strongest leaves or the entire plant
Use:	Young, delicate leaves as a salad, larger leaves for cooking
Characteristics:	Indispensable classic of the winter veggies

JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	ОСТ	NOV	DEC
							sowing				
								plan	ting		
									harvest	ing	





Asian salads

Cultivation:	Little water is
	from rain/sno
Frost hardy until:	-12 °C
Winter protection:	In garden or r
	frames or mir
	in greenhouse
Harvest:	Continuously
	leaves; do not
Use:	In fresh salad
Characteristics:	An essential c
	to the diverse
	leaves as well
	sitios of the in

required, provide protection ow, prevent from water logging

raised bed: cover it with cold ni-hoops. No cover necessary es

harvest the larger single t harvest leaves when frozen s, for decorating, as a herb companion during winter, due colours and shapes of the as the differing flavour intensities of the individual varieties!

JAN FEB MAR APR MAY JUN JUL AUG SEP OCT NOV DEC

'Forellenschluss' Romaine lettuce

Cultivation:	Little water required, keep the plants dry, ventilate the greenhouse well, protect from rain and snow (cover). Grows a little bit slower than other lettuces.
Frost hardy until:	-8/-12°C
Winter protection:	In garden or raised bed: cover it with cold
-	frames or mini-hoops. No cover necessary
	in unheated greenhouses.
Harvest:	Take the whole head.
Use:	In fresh salads
Characteristics:	A visual delight due to its striking leaf pattern





Minutina

Cultivation: Frost hardy until: Winter protection: Harvest:

Characteristics:

Use:

Water regularly -12 °C Not required Continuously harvest the strongest leaves; do not cut too low In fresh salads, as a herb Very popular salad herb in Italy with a delicate and nutty flavour. Largely unknown in other regions.

JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	ОСТ	NOV	DEC
							sowing				
									harves	ting	



Curly kale

Cu Fre W	ultiv ost 'inte	ation hardy er pro	: / until tectio	: n:	Water regularly -20°C Not required, consider protection from snow to avoid the leaves breaking under its weight							
Ha	arve	st:			Cont	inuou	sly ha	rvest	the si	ngle le	eaves	
Us	se:				For cooking, frying, steaming, in smoothies							
Ch	nara	cteris	tics:		An old variety, the leaves are rich in vitamin C!							
J	AN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	ОСТ	NOV	DEC
					sowing							



Batavian lettuce

Cultivation:

Harvest:

rain and snow (cover) Frost hardy until: -8/-12°C Winter protection:

Use: **Characteristics:**

ventilate the greenhouse well, protect from In garden or raised bed: cover it with cold frames or mini-hoops. No cover necessary in unheated greenhouses. Continuously harvest the strongest leaves or take the whole head

Little water required, keep the plants dry,

In fresh salads

Harvesting possible up until spring



Bloody dock

Cultivation:	Water regularly, early sowing in the spring results in a better harvest throughout the winter months.
Frost hardy until:	-20 °C
Winter protection:	Not required
Harvest:	Continuously harvest the young leaves
Use:	In fresh salads, for decorating
Characteristics:	Not only do the young leaves look very decorative, but due to its pleasantly acetous flavour, bloody dock also goes well with salads.







Lamb's lettuce

Cultivation:	Water well after planting, keep it rather dry afterwards, remove weeds
Frost hardy until:	-20° C
Winter protection:	In garden or raised bed: cover it with cold
	frames or mini-hoops. No cover necessary
	in unheated greenhouses
Harvest:	Continuously harvest the largest single
	leaves or the entire plant, do not harvest
	the leaves when frozen
Use:	In fresh salads
Characteristics:	Very tolerant to the cold, can even grow at
	5 °C.

JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	ОСТ	NOV	DEC
								sowing	ting		
									ling	harves	ting



'Winter king' lettuce

Cultivation:	Little water required, keep the plants dry, ventilate the greenhouse well, protect from rain and snow (cover)
Frost hardy until:	-5/-7°C, headed lettuces are less frost
	hardy than other open rosette types.
Winter protection:	In garden or raised bed: cover it with cold
	frames or mini-hoops. No cover necessary
	in unheated greenhouses.
Harvest:	Take the whole head, do not harvest the
	leaves when frozen
Use:	In fresh salads
Characteristics:	Old, traditional variety with a relatively
	large head
JAN FFB MAR APR	MAY JUN JUL AUG SEP OCT NOV DEC

JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	ОСТ	NOV	DEC
							sowing pla	nting		harves	ting

References

N. Jabbour (2011): The Year-Round Vegetable Gardener. Storey Publishing.

E. Coleman (2009): The Winter Harvest Handbook, Chelsea Green Publishing Co.

Ch. Dowding (2011): How to grow Winter Vegetables, Green Books. **W. Palme** (2016): Frisches Gemüse im Winter ernten, Löwenzahn Verlag (German).

Imprint

Publisher: Horticultural College and Research Institute (HBLFA Schönbrunn), Grünbergstr. 24, A-1130 Vienna, office@gartenbau.at; www.gartenbau.at

Editing/Layout: Research Institute of Organic Agriculture FiBL Lauren Dietemann, Laura Kemper, Sandra Walti

Tel. +41 (0)62 8657-272, info.suisse@fibl.org, www.fibl.org

Authors: Wolfgang Palme, HBLFA Schönbrunn

Contact: Wolfgang Palme, wolfgang.palme@gartenbau.at **Permalink:** https://orgprints.org/39473

Cover picture: Winter leafy vegetable trial

Source of all pictures: Wolfgang Palme, HBLFA Schönbrunn **About Greenresilient:** This factsheet was elaborated in the project Greenresilient – Organic and bio-dynamic vegetable production in low-energy GREENhouses – sustainable, RESILIENT and innovative food production systems, running 2018 to 2021. The main objective of Greenresilient is to demonstrate that an agroecological approach to greenhouse production is feasible and allows the establishment of robust agroecosystems in different European areas. **Project partners:** Agroscope, Switzerland; AU-FOOD – Aarhus University, Department of Food Science, Denmark; CREA – Consiglio per la ricerca in agricoltura e l'analisi dell'economia agraria, Italy; FiBL – Research Institute of Organic Agriculture, Switzerland; GRAB – Groupe de Recherche en Agriculture Biologique, France; HBLFA – Horticultural College and Research Institute, Austria; ILVO – Institute for Agricultural and Fisheries Research, Belgium; La Colombaia – Società Agricola Semplice LA COLOMBAIA, Italy; PCG – Vegetable Research Centre Kruishoutem, Belgium; SLU – Swedish University of Agricultural Sciences, Sweden; UvA – Institute for Biodiversity and Ecosystem Dynamics, Netherlands; WUR – Stichting Wageningen Research, research institute Wageningen Plant Research, Netherlands

About: The project 'Greenresilient – Organic and bio-dynamic vegetable production in low-energy GREENhouses – sustainable, RESILIENT and innovative food production systems' is one of the projects initiated in the framework of Horizon 2020 project CORE Organic Co-fund (https://projects.au.dk/coreorganiccofund/) and it is funded by the Funding Bodies being partners of this project (Grant Agreement no. 727495). The opinions expressed and arguments employed in this factsheet do not necessarily reflect the official views of the CORE Organic Cofund Funding Bodies or the European Commission. They are not responsible for the use which might be made of the information provided in this factsheet.

www.greenresilient.net © 2021

