

Jet-Seeds®



Perennial Seeds
Staudensamen

2024/25

Price List 2024 / 2025

(valid for two years)

Mailing address:

Jelitto Staudensamen GmbH
Postfach 1264 · 29685 Schwarmstedt · Germany
Telefon 0 50 71/98 29-0 · Telefax 0 50 71/98 29-27
Intern.: Phone +49 50 71/98 29-0 · Fax +49 50 71/98 29-27
www.jelitto.com · e-mail: info@jelitto.com

Delivery address:

Am Toggraben 3 · 29690 Schwarmstedt · Germany

Office hours:

Monday – Friday, 8.00 – 16.45 C.E.T.

USA Office:

Jelitto Perennial Seeds
4898 Brownsboro Rd. · Suite 201 · Louisville, KY 40207
Phone +1/502/895 0807 · Fax +1/502/895 3934
Manager: Mary Vaananen · e-mail: maryv@jelitto.com

UK & Ireland Agents:

Meadows (Fenton) Ltd - Jelitto Perennial Seeds
P.O. Box 78 · St Ives
Huntingdon · Cambs PE27 6ZA
Phone +44 (0) 1480-463 570
Office: Angela Whiting · e-mail: angela@jelitto.com
Manager: Luke Whiting · e-mail: Luke@jelitto.com

Japan Office:

Oscogarden Japan Inc.
1137-4, Kusabana, Akiruno-shi
Tokyo 197-0802
Phone +81(0) 42-518-7323 · Fax +81(0) 42-518-7324
e-mail: oscogarden@jelitto.com

Trade register: Walsrode HRB 497

General Manager: Georg G. Uebelhart

General directions:

Prices in EURO/€!

Minimum order value 25 € net. Orders less than 25 € will be charged the difference.

Minimum charge per item 2 € net.

During the busy season Jan./Febr. and May/June please allow 1-2 weeks for order processing. Please order well in advance!

Orders are generally shipped air parcel post but courier service is available upon request.

According to our experience it can take from pick-up to delivery up to 30 days via air parcel post and is impossible to track. By courier it will take 2, to maximum 5 days, and it is possible to track anytime, but is more expensive. The seed offered of endangered plants is not collected in the wild.

Our seed is not edible, and is only suitable for the production of plants. Please note that some seeds and plants are toxic! Jelitto Staudensamen GmbH cannot be held responsible if seeds or plants are eaten.

Online-Shop and websites:

www.jelitto.com

Download Order Form

Our VAT Reg. No. is:

DE 118576356

Payments requested by Credit card!



Other payment methods with credit approval:

- Direct money transfer in EURO € to one of our bank accounts. All banking charges are for the account of the buyer.
- For the USA and Canada the invoice will be converted into US \$, for the UK the invoice will be converted into GBP £, according to the actual exchange rate. Conversion table see inside back cover.
- The prices in this list are not binding and exclude tax. Customers outside of Germany in the European-Union who do not have a VAT Reg. No. will be charged additional value added customary tax.

Please supply us with your VAT Reg. No. when ordering.

Bank accounts:

Commerzbank Celle, Germany
SWIFT-BIC: DRES DE FF257
IBAN: DE94 2578 0022 0419 9923 00

Kreissparkasse Walsrode, Germany
SWIFT-BIC: NOLA DE 21WAL
IBAN: DE32 2515 2375 0008 1280 01

Postbank Hamburg, Germany
SWIFT-BIC: PBNK DE FF200
IBAN: DE45 2001 0020 0278 0792 02

Basellandschaftliche Kantonalbank, Switzerland,
CH-4144 Arlesheim, SWIFT-BIC: BLKB CH 22 769
CHF-Acc. IBAN: CH37 0076 9016 3103 3751 4
€-Acc. IBAN: CH54 0076 9016 1443 0948 6

Commerzbank London Branch, UK
SWIFT-BIC: COBA GB 2X
GBP/£-Acc. IBAN: GB41 COBA 4062 0130 5094 50

Throughout the seed list on the following pages you will find:

Signs:

- NEW!** new introduction
 with picture in the catalogue

Examples out of our descriptions:

- (ISU) = Awarded Plant
JEL Jelitto Cultivars and New Introductions, **AAS** All American Selection, **AGM** Award of Garden Merit by RHS, **FSS** Fleuro Select, **ISU** International Hardy Plant Union, **PFA** Perennial Plant Association, **PS** Plant Select, contact Plant Select for legal use of ® names
- 70 cm = height of plants
 VI-IX = flowering June - September
JET® = **JELITTO SEED TECHNOLOGY**
 represents our improvement in seed cleaning.
JET® seeds have been rubbed, peeled or processed into pure seed for better mechanical handling and seed sowing.
 The **JET®** process enhances germination on a growing number of seed items.
- [] = These specifications concern cultivar translations, the renaming of existing cultivars, and confusing marketing names given to the botanical species. We deliver the usual trade quality of seed.
 While these specifications are not complete, they are compiled in good conscience to the best of our knowledge and will be updated online (www.jelitto.com).
 For example:
ALYSSUM montanum 'Berggold' = translated = [Mountain Gold]
AQUILEGIA vulgaris 'William Guinness' = re-named = [Maggie]
NEPETA nervosa = marketing name = [Blue Moon]

1. Line: Amount of seeds in gram to get approx. 1000 plants.
 (If sown directly into pots, trays or containers you will need an appropriate larger quantity.)
2. Line: The No of sowing directions, you will find it in English and other languages at the end of the catalogue.
 (D, UK, F, S, NL, J, I)
3. Line:
- | | | | |
|---|---|---|---|
|  | ornamental foliage plant |  | avoid lime |
|  | first year flowering |  | annual |
|  | second year flowering |  | biennial |
|  | flowering pot plant |  | perennial |
|  | creeping, groundcovers |  | solitary plant |
|  | climbing |  | decorative fruit |
|  | water or marshplant |  | toxic plant |
|  | hanging plant |  | official (medicinal) plant |
|  | winterprotection needed
(Northern- and Central-Europe) |  | patio plants (Northern- and Central-Europe) |
|  | Alpinehouse in winter |  | flowers or seedcapsules |
|  | cushion plant |  | for flower arrangement |
|  | for the rockgarden |  | beneficial plant |
| | |  | honey-bee food plant |
- Z1 - 11 Winter Hardiness Zones: give an approximate indication of the minimum temperature that a particular species can survive. Use this as a basic but not the end all for determining species suitable for your conditions. Other factors like soil and microclimate can influence winter hardiness to some degree. Source: RHS Index of Garden Plants, USDA Online Plant Database, A. Armitage - Herbaceous Perennial Plants and others. Conversion table see inside back cover.
- Prices:
- | | |
|------------|---|
| 1000g | = Prices in Euro for 1000 - 9999.9 gramm |
| 100g | = Prices in Euro for 100 - 999.9 gramm |
| 10g | = Prices in Euro for 10 - 99.9 gramm |
| 1g | = Prices in Euro for 0.1 - 9.9 gramm |
| 1 P | = Prices in Euro for 1 Portion (approx. 20-250 seeds) |
| 1000 seeds | = Prices in Euro for 1000 seeds |

Minimum charge per item 2€ net! Minimum order value 25€ net!
 See also delivery terms on the inside back cover.

	Gram to get 1000 plants	Nº. of the sowing direction	Special Hints	Prices in EURO net per:			
				from 100 g	from 10 g	from 1 g	Portion
ACHILLEA AA 029  millefolium 'Colorado',  60 cm, V-X, Z2-9	1	15	   	544,00	68,00	8,60	2,80

Code No.:
 Please always state our code number for each item on your order to prevent delays with delivery.

Fax Order Form
Pages 5 – 6

The Fax Order Form as well as the Purchase Order Form can be downloaded on www.jelitto.com, see „Other“.


JELITTO GOLD NUGGET SEED®
Pages 8 – 12

List of all available GOLD NUGGET SEED with important notes.

Perennial Herbs - Culinary, Teas and Medicinal
Page 13 – 35

Perennial Medicinal-, Aromatic- and Culinary Herbs as well as annual herbs as a supplement to the assortment.


Herb Seeds from Organic Production
Page 36 – 53


Certified seed in compliance with EU Regulation No. 2018/848

Perennials
Pages 54 – 192

The whole perennial seeds assortment with short plant descriptions, special hints and prices.

Printed Stick In Labels
Page 192

We offer printed stick labels for your seed flats.

Ornamental Grasses
Pages 193 – 208

The whole ornamental grasses assortment with short plant descriptions, special hints and prices.

Sowing directions
pages 209 – 216

Sowing directions in D, UK, F, S, NL, J, I

This new range of certified organic seeds contains a selection of our most popular culinary and medicinal herbs and teas. (Certification in compliance with EU Regulation No. 834/2007 + 889/2008).

The seeds are identified by an "O" for "organic" as the second letter of our item code.

Our company is listed under the No. D-NI-006-17409-BCD / DE-ÖKO-006-Kontrollstelle (German certification body) and is subject to annual examination on the basis of which an EU organic food certificate is issued.

This process guarantees transparency along the line from seed to consumer which is essential when dealing with organic products.

Our certificate according Art. 35 can be downloaded at www.jelitto.com.

Please check with your local authority to determine if our EU certificate/Documentary Evidence is valid in your country.

As ultimate consumer you are in a position to choose the seeds you buy, with or without valid certification. It is up to you to make a contribution towards healthy, ecological products.

		Gram to get 1000 plants	N° of the sowing direction	Prices in EURO net per:				
				from 1000 g	from 100 g	from 10 g	from 1 g	Portion
ACHILLEA (Asteraceae, <i>Compositae</i>)								
AO 028	millefolium, wild form , Yarrow, 40 cm, white, VI-X, Z2-9	1	15	480,00	72,00	12,00	3,00	2,00
AO 033	millefolium 'Proa' , 40 cm, pure white, uniform habit, tetraploid cultivar, high oil concentration, VI-VIII, Z2-9	1	15	768,00	96,00	12,00	3,00	2,00
AO 041	nobilis , Noble Yarrow, 50 cm, cream-yellow, for dry places, VI-IX, Z5-7	1	15	1380,00	240,00	32,00	4,20	2,00
ACMELLA (Asteraceae, <i>Compositae</i>)								
AO 077	 oleracea f. purpurea (SPILANTHES) [Bull's Eye, Electric Buttons, Peek-A-Boo] , Purple leaved Paracress, Toothache Plant, 30 cm, brown-yellow flower buds, bronze-green foliage, V-IX, Z9-11	1	15	—	—	—	48,00	4,20
AGASTACHE (Lamiaceae, <i>Labiatae</i>)								
AO 154	 foeniculum (anisata hort.) , True Anise-Hyssop, 70 cm, blue, dark green foliage, silvery underneath, true, VII-IX, Z5-9	1	15	—	760,00	96,00	12,00	3,20
AO 156	rugosa (anisata hort.) [Liquorice Blue, Blue Spike] , (Huo Xiang), Blue Anis Hyssop, 60 cm, blue-lilac, aromatic, VI-IX, Z6-9, TCM plant	2	15	—	144,00	36,00	6,40	2,20
AO 157	 rugosa f. albiflora [Alabaster, Alba, Liquorice White, Snow Spike] , White Anis Hyssop, 60 cm, pure white, VI-IX, Z6-9	2	15	—	144,00	36,00	6,40	2,20
AO 162	 rugosa 'Korean Zest' , Korean Mint, 50 cm, deep violet-blue, narrow blossom panicles, dark stems, compact, bushy habit, VII-IX, Z5-9	1	15	—	760,00	96,00	12,00	3,60
AO 153	 rupestris [Apache Sunset, Sunset Hyssop] , (PS), Sunset Hyssop, 60 cm, rose-orange, aromatic grey-green foliage, abundant flowering, for dry locations, VI-IX, Z6-10	2	15	—	—	288,00	36,00	7,20
AGRIMONIA (Rosaceae)								
AO 155	eupatoria , Common Agrimony, 50 cm, yellow, VI-VIII, Z3-8	75	9	380,00	76,00	12,00	2,00	2,00
NEW! AO 151	 eupatoria var. alba , 50 cm, white flowering form, intense dark green, feathered foliage, VI-VIII, Z3-8	50	9	—	132,00	22,00	3,80	3,80
AO 173	 procera (odorata) , Fragrant Agrimony, 100 cm, yellow, pinnatifid foliage, VI-IX, Z3-9	100	9	640,00	132,00	22,00	3,80	7,60
AGROSTEMMA (Caryophyllaceae)								
AO 166	 githago , Corn Cockle, 60 cm, purple-violet, VI-VIII, Z4-10, ☉	30	15	144,00	32,00	5,20	2,00	2,00
AJUGA (Lamiaceae, <i>Labiatae</i>)								
AO 161	 genevensis , Upright Bugle, 15 cm, blue, IV-V, Z4-7	10	9	—	480,00	64,00	8,00	3,60
AO 158	reptans , Creeping Bugle, 15 cm, blue, V-VI, Z3-9	10	9	—	—	96,00	12,00	4,20
ALCEA - see also ALTHAEA (Malvaceae)								
AO 308	 rosea var. nigra [Jet Black, Arabian Nights] , Hollyhock, 180 cm, single, black-red, V-X, Z3-9	25	15	480,00	96,00	12,00	2,00	2,00
ALCHEMILLA (Rosaceae)								
AO 178	xanthochlora (vulgaris) , Lady's Mantle, 50 cm, yellow-green, VI-VIII, Z3-8, pure seed	1	1	—	296,00	36,00	6,40	2,80



ACMELLA oleracea f. purpurea



AGRIMONIA procera



AGROSTEMMA githago



AGRIMONIA eupatoria var. alba

		Gram to get 1000 plants	N° of the sowing direction	Prices in EURO net per:				
				from 1000 g	from 100 g	from 10 g	from 1 g	Portion
ALLIUM (Alliaceae, <i>Liliaceae</i>)								
AO 208	fistulosum , Welsh Onion (Cong-Bai), 40 cm, yellowish-white, very large hollow leaves, VII-VIII, Z4-7, TCM plant.	5	15	784,00	112,00	16,00	2,80	2,00
AO 236	 obliquum , Twisted Leaf Garlic, 60 cm, greenish yellow spherical flowers, narrow blue-green foliage, VI-VIII, Z4-8	8	9	–	768,00	96,00	12,00	4,20
AO 247	 ramosum (odorum) , Fragrant Flowered Garlic, 40 cm, bell shaped white umbels, similar to A. tuberosum, but earlier flowering, VI-VIII, Z5-9	10	15	996,00	168,00	24,00	3,40	2,00
AO 241	schoenoprasum , Chives, 40 cm, lilac, V-VIII, Z3-9	3	15	240,00	36,00	12,00	2,60	2,00
AO 237	schoenoprasum 'Polyvert' , Vegetable Chives, 40 cm, lilac, large-sized leaves, upright, robust for outdoor production, V-VIII, Z3-9.	3	15	976,00	132,00	18,00	3,20	3,20
AO 239	schoenoprasum 'Polyvit' , Vegetable Chives, 40 cm, lilac, medium-sized leaves, upright, V-VIII, Z3-9	3	15	976,00	132,00	18,00	3,20	3,20
AO 260	tuberosum , Chinese Chives, Garlic Chives (Jiu-Zi), 50 cm, white, VI-IX, Z3-10, TCM plant	8	15	360,00	54,00	14,00	2,00	2,00
AO 258	ursinum , Wood Garlic, Bear Garlic, Ramsons, 25 cm, white, V, Z3-9	25	1	620,00	98,00	16,00	2,00	2,00
ALTHAEA - see also ALCEA (Malvaceae)								
AO 283	 cannabina , Hemp Marsh Mallow, 180 cm, rose-lavender with dark eye, deeply lobed leaves, VII-IX, Z3-10	15	8	–	–	78,00	9,60	4,80
AO 282	officinalis , Marshmallow, 180 cm, pink, V-IX, Z3-10	10	8	448,00	64,00	9,20	2,60	2,00
AMMI (Apiaceae, <i>Umbelliferae</i>)								
AO 357	 visnaga (DAUCUS visnaga) , Pick-Tooth, 60 cm, white umbels, densely feathered foliage, mostly annual, also for floral arrangements, VII-IX, Z6-10	2	15	–	82,00	16,00	3,20	2,00
ANACYCLUS (Asteraceae, <i>Compositae</i>)								
AO 367	 pyrethrum , Mount Atlas Daisy, Pellitory, 40 cm, white, feathered foliage, short lived, IV-VI, Z5-9	2	15	–	896,00	128,00	16,00	2,00
AO 369	 pyrethrum var. depressus f. compactum 'Silberkissen' [<i>Silver Kisses, Silver Cushion</i>], JEL , 10 cm, white, essential compact and more dense than former variety, shorter side shoots, IV-VI, Z5-9	2	15	–	–	192,00	24,00	6,00
ANCHUSA (Boraginaceae)								
AO 378	officinalis , Alkanet, 70 cm, dark violet, VI-IX, Z4-9	10	7	–	186,00	26,00	3,80	3,80
ANEMOPSIS (Saururaceae)								
AO 534	 californica (HOUTTUYNIA) , Yerba Mansa, 35 cm, white, broad, aromatic foliage, VI-VIII, Z4-8	1	9	–	–	–	48,00	5,80



AJUGA genevensis



ALCEA rosea var. nigra



ALLIUM obliquum



ALTHAEA cannabina



AMMI visnaga



ANACYCLUS pyrethrum



ANEMOPSIS californica



ANTHYLLIS vulneraria

			Gram to get 1000 plants	N° of the sowing direction	Prices in EURO net per:				
					from 1000 g	from 100 g	from 10 g	from 1 g	Portion
ANETHUM (Apiaceae, <i>Umbelliferae</i>)									
AO 484	graveolens , Dill, 60 cm, yellow umbels, VI-VIII, Z6-10, ☉	Ⓚ ⓑ ⓓ	4	15	72,00	18,00	6,00	2,00	2,00
ANGELICA (Apiaceae, <i>Umbelliferae</i>)									
AO 492	archangelica , Angelica, Holy Ghost, 180 cm, greenish-white to creamy umbels, VI-VIII, Z3-7	Ⓚ ⓑ ⓓ	20	9	175,00	35,00	7,00	2,00	2,60
AO 494	archangelica 'BLBP 01' , Angelica, Holy Ghost, 180 cm, greenish-white umbels, high content of essential oil, very high root yield, very vigorous, low disease risk, VI-VIII, Z3-7	Ⓚ ⓑ ⓓ	20	9	288,00	48,00	8,00	2,00	3,00
scoticum - see LIGUSTICUM scoticum									
ANTHEMIS (Asteraceae, <i>Compositae</i>)									
nobilis - see CHAMAEMELUM nobile									
AO 522	tinctoria (COTA) , Dyer's Chamomile, 50 cm, golden, VII-IX, Z3-7	Ⓚ ⓣ ⓑ	1	15	—	48,00	12,00	4,00	2,00
ANTHOXANTHUM (Poaceae, <i>Gramineae</i>)									
ZO 036	odoratum , Sweet Vernal Grass, 30 cm, V-VI, Z4-9	Ⓚ ⓣ ⓓ	5	15	—	96,00	12,00	2,00	2,00



AQUILEGIA chrysantha Denver Gold®



ARGEMONE platyceras



ARTEMISIA absinthium 'Silverado'



ASCLEPIAS incarnata



ATRIPLEX hortensis var. rubra



BARBAREA vulgaris



BELAMCANDA chinensis



BORAGO officinalis 'Alba'



BERLANDIERA lyrata

		Gram to get 1000 plants	N° of the sowing direction	Prices in EURO net per:				
				from 1000 g	from 100 g	from 10 g	from 1 g	Portion
ANTHRISCUS (Apiaceae, <i>Umbelliferae</i>)								
AO 539	cerefolium 'Typ Fine Curled' , Chervil, 30 cm, white, double curled and productive foliage cultivar, VI-VIII, Z6-9, ☉ ® ①	5	15	98,00	24,00	6,00	2,00	2,00
ANTHYLLIS (Papilionaceae, <i>Leguminosae</i>)								
AO 546	 vulneraria , Kidney Vetch, 15-20 cm, yellow-orange, V-VI, Z4-9, pure seed ® ①	8	8	—	160,00	22,00	3,20	3,20
AQUILEGIA (Ranunculaceae)								
AO 755	 chrysantha Denver Gold ®, (FS), 80 cm, golden, robust and stable, reblooms after dead-heading, V-IX, Z3-8. ®	3	15	—	—	72,00	9,00	3,60
AO 776	vulgaris , Granny's Bonnet, 50 cm, blue, V-VI, Z3-8. ® ①	5	16	—	128,00	16,00	2,00	2,00
ARCTIUM (Asteraceae, <i>Compositae</i>)								
AO 844	lappa , Great Burdock (Niu-Bang-Zi), 140 cm, panicles with purple flower heads, large leaves, VI-IX, Z2-9, TCM plant. ® ①	30	15	192,00	48,00	12,00	4,00	4,00
ARGEMONE (Papaveraceae, <i>Fumariaceae</i>)								
AO 858	 platyceras (mexicana var. aculeatissima) , Prickly Poppy, 40 cm, white, bluish green foliage, VI-X, Z3-9, ☉ ® ® ①	10	1	—	120,00	22,00	3,60	2,00
ARISTOLOCHIA (Aristolochiaceae)								
AO 882	 clematitis , Osterluzei, 80 cm, light yellow, poisonous, V-VII, Z5-9. ①	80	1	—	64,00	9,20	2,00	5,20
ARNICA (Asteraceae, <i>Compositae</i>)								
AO 904	 chamissonis , Leafy Leopard's Bane, 50 cm, yellow, abundant flowers, VI-VIII, Z2-8. ® ①	3	15	—	—	144,00	16,00	3,80
AO 908	montana , Arnica, Mountain Tobacco, 50 cm, golden, lime-free soil, V-VII, Z5-8. ® ①	5	15	—	—	144,00	16,00	3,80
ARTEMISIA (Asteraceae, <i>Compositae</i>)								
AO 915	absinthium , Common Wormwood, Absinthe, 80 cm, yellow, grey-green foliage, VI-VIII, Z3-9. ① ①	0,5	15	—	480,00	64,00	8,60	2,00
AO 919	 absinthium 'Silverado' ,  613 , 60 cm, yellowish flower spikes, grey-white feltlike broad pinnatifid foliage, aromatic, sturdy and compact habit, especially hardy and ornamental selection VII-VIII, Z3-9. ① ①	0,5	15	—	—	96,00	12,00	3,20
AO 918	annua , Sweet Annie (Qing Hao), 140 cm, yellowish-green, pinnatifid foliage, annual, VIII-X, Z6-10, TCM plant, pure seed ① ①	0,5	15	—	1980,00	248,00	32,00	4,20
AO 917	dracunculus , Russian Tarragon, 100 cm, greenish, lanceolate foliage, VI-VIII, Z2-9. ® ①	1	15	—	360,00	48,00	6,40	2,00
ASCLEPIAS (Asclepiadaceae)								
NEW! AO 976	 incarnata , Swamp Milkweed, 100 cm, pink-red, vanilla-scented, VII-VIII, Z3-9. ® ①	20	9	—	384,00	48,00	6,40	4,80
AO 984	tuberosa , Butterfly Weed, 70 cm, orange, VI-VIII, Z3-8. ® ①	15	9	—	320,00	40,00	6,00	4,50
ASTRAGALUS (Papilionaceae, <i>Leguminosae</i>)								
AO 148	 mongholicus (membranaceus var. mongholicus) 'BLBP 04' , Chinese Milkvetch (Huang Qi), 130 cm, light yellow flowers, inflated red tinged seed husks, pinnatifid foliage, erect growth, high content of astragalosid IV, high root yield, thick roots, VII-VIII, Z5-9, TCM plant. ® ① ①	20	8	—	144,00	24,00	4,00	2,00
ATRIplex (Chenopodiaceae, <i>Amaranthaceae</i>)								
AO 265	 hortensis var. rubra , Red leaved Garden Orache, 120 cm, purplish-red, heart shaped foliage, reddish flower spikes, VII-IX, Z5-10, ☉ pure seed ® ①	10	15	288,00	64,00	16,00	2,80	2,80
ATROPA (Solanaceae)								
AO 188	bella-donna , Deadly Nightshade, 150 cm, brown-green, brilliant black berries, poisonous! VI-VIII, Z5-10. ①	3	1	—	168,00	24,00	3,20	2,00
BARBAREA (Brassicaceae)								
BO 038	 vulgaris , Rock Cress, Yellow Rocket, 60 cm, yellow, glossy green foliage, evergreen, V-VII, Z5-8. ® ® ①	1	15	320,00	54,00	9,20	2,00	2,00
BELAMCANDA (Iridaceae)								
BO 026	 chinensis (IRIS domestica) [Freckle Face] , Leopard Flower, 60 cm, large bowl-shaped flowers, orange with red-brown spots, VII-IX, Z5-9, TCM plant. ® ①	60	7	—	240,00	40,00	6,80	6,80
BELLIS (Asteraceae, <i>Compositae</i>)								
BO 029	perennis , Common Daisy, English Daisy, 15 cm, white, II-VI, Z3-8. ® ® ①	1	15	—	396,00	44,00	4,80	2,00
BERLANDIERA (Asteraceae, <i>Compositae</i>)								
BO 052	 lyrata [Chocolate Drop, Chocolate Daisy] , (FS), Chocolate Flower, Green Eyes, 25 cm, yellow, with chocolate fragrance, V-VII, Z5-10, pure seed ® ®	10	15	—	660,00	78,00	9,40	4,80
BETONICA - see STACHYS								
BLITUM - see CHENOPODIUM								
BORAGO (Boraginaceae)								
BO 050	officinalis , Borage, 60 cm, blue, VI-IX, Z7-11, ☉ ® ® ①	50	15	198,00	32,00	6,00	2,00	2,00
BO 051	 officinalis 'Alba' , White Flowering Borage, 50 cm, pure white, VI-IX, Z7-11, ☉ ® ® ①	50	15	384,00	64,00	12,80	4,40	4,40
BULBINE (Asphodelaceae, <i>Liliaceae</i>)								
BO 088	frutescens , Bulbine, Burn Jelly Plant, 40 cm, yellow-orange, succulent, fleshy leaves with characteristics similar to ALOE vera, V-IX, Z9-12. ® ①	5	8	—	—	56,00	7,20	3,60



CALAMINTHA nepeta 'Blue Cloud Strain'



CALAMINTHA nepeta 'White Cloud Strain'



CARDIOSPERMUM halicacabum



CARTHAMUS tinctorius

			Gram to get 1000 plants	N° of the sowing direction	Prices in EURO net per:				
					from 1000 g	from 100 g	from 10 g	from 1 g	Portion
CALAMINTHA (Lamiaceae, <i>Labiatae</i>)									
CO 023		nepeta ssp. nepeta 'Blue Cloud Strain' , (PFA), Calamint, 30 cm, bright light-blue flowers, very valuable, permanent flowering perennial, minty aromatic foliage, ideal for edging borders, V-X, Z5-9.	1	15	–	–	182,00	26,00	3,80
CO 018		nepeta ssp. nepeta 'White Cloud Strain' , (PFA), Calamint, 30 cm, pure white flowers, very valuable, permanent flowering perennial, minty aromatic foliage, ideal for edging borders, VI-X, Z5-9.	1	15	–	–	182,00	26,00	3,80
CALENDULA (Asteraceae, <i>Compositae</i>)									
CO 030		officinalis , Pot Marigold, 40 cm, yellow-orange, single to double, for the biological disinfection of soil, amount needed 5gr/m², VII-X, Z5-10, ☉.	25	15	128,00	22,00	4,00	2,00	2,00
CALLIRHOE (Malvaceae)									
CO 038		involucrata [Winecups, Buffalo Rose] , (PS), Poppy Mallow, 20 cm, bright carmine-rose, VII-IX, Z4-9.	20	8	–	–	60,00	7,60	7,60
CO 041		involucrata var. tenuissima , Poppy Mallow, 20 cm, bright pink, strongly pinnatifid foliage, VII-IX, Z4-9.	20	14	–	480,00	60,00	7,60	7,60
CALLUNA (Ericaceae)									
CO 040		vulgaris , Scots Heather, Ling, 30 cm, rose-lilac, VIII-IX, Z3-9, pure seed ☉ ☉ ☉	0,2	4/8	–	420,00	52,00	6,60	2,20
CALTHA (Ranunculaceae)									
CO 044		palustris , Marsh Marigold, 30 cm, deep yellow, shiny green foliage, IV-V, Z3-7.	4	2/3/18	–	294,00	42,00	6,00	2,00
CAMPANULA (Campanulaceae)									
CO 220		rapunculus , Rampion, 70 cm, blossom panicles blue or white, VII-VIII, Z5-9.	1	16	–	–	–	16,00	2,40
CARDAMINE (Brassicaceae, <i>Cruciferae</i>)									
CO 260		pratensis , Cuckoo Flower, 40 cm, pale lilac or white, III-V, Z3-7.	2	15	–	–	48,00	6,00	3,00
CARDIOSPERMUM (Sapindaceae)									
CO 267		halicacabum [Green Lanterns] , Balloon Wine, Heart Pea, 180 cm, white, large green balloonlike inflated seed-pods, climbing, usually annual, V-X, Z9-11.	150	16	328,00	58,00	9,80	2,40	4,80
CARLINA (Asteraceae, <i>Compositae</i>)									
CO 274		acaulis ssp. caulescens (simplex) , Silver Thistle, 50 cm, large shiny white flowering heads with stem, VII-IX, Z3-9.	15	15	–	384,00	48,00	6,00	6,00
CARTHAMUS (Asteraceae, <i>Compositae</i>)									
CO 268		tinctorius , Safflower, Dyer's Saffron (Hong-Hua), 50 cm, orange-yellow flower heads, VII-VIII, Z5-10, TCM plant, ☉.	80	15	98,00	36,00	12,00	2,00	2,00
CARUM (Apiaceae, <i>Umbelliferae</i>)									
CO 271		carvi , Caraway, 60 cm, white, VI-VIII, Z2-9, ☉.	10	15	46,00	12,00	6,00	2,00	3,00
CENTAUREA (Asteraceae, <i>Compositae</i>)									
CO 303		atropurpurea (calocephala) , 120 cm, deep purple, feathery foliage, VI-VIII, Z5-9.	15	16	–	432,00	54,00	6,80	6,80
NEW! CO 307		cyanus wildform , Bachelor's Button, 60 cm, blue, VI-X, Z4-10, ☉.	2	15	240,00	48,00	8,20	2,00	2,00
CO 306		cyanus 'Blaue Gefüllte' , Bachelor's Button, 50 cm, mostly double blue, VI-X, Z4-10, ☉.	2	15	178,00	36,00	7,20	2,00	2,00
CO 315		cyanus 'Double Mixture' , Bachelor's Button, 50 cm, blue, pink and white colors, VI-X, Z4-10, ☉ ☼.	2	15	144,00	36,00	7,20	2,00	2,00
CO 312		jacea , Brown Knapweed, 80 cm, purple, VI-IX, Z5-8.	10	15	780,00	142,00	24,00	3,40	2,00
CO 320		montana (CYANUS) , Perennial Cornflower, Mountain Bluet, 50 cm, blue, first year flowering, V-VII, Z3-9.	35	16	–	576,00	72,00	9,60	4,80
CENTAURIUM (Gentianaceae)									
CO 340		erythraea (umbellatum) , Centaury, Feverwort, 20 cm, pink, VII-X, Z5-9, ☉.	1	16	–	1440,00	180,00	24,00	3,20
CENTRANTHUS (Valerianaceae)									
CO 348		ruber var. coccineus [Pretty Betsy] , Red Valerian, 60 cm, light red, variable, V-VIII, Z5-8 ☉ ☉ ☉	5	16	–	768,00	96,00	12,00	3,20

			Gram to get 1000 plants	N° of the sowing direction	Prices in EURO net per:				
					from 1000 g	from 100 g	from 10 g	from 1 g	Portion
CEPHALARIA (Dipsacaceae)									
CO 354	gigantea , Giant Pincushion Flower, 200 cm, light yellow, scabiosa-like flowers, VI-VIII, Z4-7 . . . ®		50	9	–	288,00	36,00	4,60	4,60
CHAMAEMELUM (Asteraceae, <i>Compositae</i>)									
CO 368	nobile (ANTHEMIS) , Roman Chamomile, 30 cm, silver-white, yellow disc, VI-VIII, Z4-9 ® ① ② ③		1	15	–	216,00	36,00	6,00	2,00
CHAMAENERION - see EPILOBIUM									
CHAMOMILLA (MATRICARIA) (Asteraceae, <i>Compositae</i>)									
CO 386	recutita , German Chamomile, Scented Mayweed, Matricary, 40 cm, white with yellow disc, V-IX, Z5-10, ☉ ① ② ③		0,5	15	236,00	46,00	9,20	2,00	2,00
CO 387	recutita 'Bodegold' , German Chamomile, Scented Mayweed, Matricary, 40 cm, white with yellow disc, tetraploid cultivar with even flower horizon, high yields, large flowering, V-IX, Z5-10, ☉ ① ② ③		0,5	15	488,00	76,00	16,00	2,80	2,00
CO 389	recutita 'Zloty Lan' , German Chamomile, Scented Mayweed, Matricary, 40 cm, white with yellow disc, tetraploid cultivar with high yields, large flowering, V-IX, Z5-10, ☉ ① ② ③		0,5	16	292,00	46,00	9,20	2,00	2,00
CHELIDONIUM (Papaveraceae)									
CO 365	majus , Greater Celandine (Bai-Qu-Cai), 50 cm, golden flowers, V-IX, Z4-8, TCM plant. ® ①		3	19	–	396,00	66,00	9,00	2,00
CHENOPODIUM (Chenopodiaceae, <i>Amaranthaceae</i>)									
CO 390	bonus-henricus , Good King Henry, 40 cm, greenish flowers, spinach-like leaves, V-IX, Z4-9, pure seed ® ①		5	15	780,00	142,00	24,00	3,40	2,00
CO 392	☒ capitatum (BLITUM) , Strawberry Blite, 30 cm, red, triangular foliage, brilliant red berries, VI-VIII, Z4-10, ☉ ® ①		0,5	15	–	980,00	128,00	16,00	4,00
CO 393	☒ foliosum (BLITUM virgatum) [Strawberry Sticks] , True Strawberry Blite, 40 cm, reddish, small, triangular foliage, brilliant red berries, VI-VIII, Z4-10, ☉ ® ①		2	15	–	580,00	84,00	12,00	3,20
CHRYSANTHEMUM - see LEUCANTHEMUM + TANACETUM									
CICHORIUM (Asteraceae, <i>Compositae</i>)									
CO 496	intybus var. intybus , Chicory, Succory, 80 cm, blue, VII-IX, Z2-9 ® ② ③		3	15	336,00	56,00	9,40	2,00	2,00
CLAYTONIA (Portulacaceae)									
NEW! CO 548	☒ perfoliata (MONTIA) , Winter Purslane, Miner's Lettuce, 20 cm, white, juicy green plate-like leaves, IV-IX, Z6-10, ☉ ® ② ③		2	1	–	156,00	26,00	4,60	2,00



CENTAUREA atropurpurea



CLAYTONIA perfoliata



CHENOPODIUM capitatum



CHENOPODIUM foliosum



CLEMATIS integrifolia Mongolian Bells®

		Gram to get 1000 plants	N° of the sowing direction	Prices in EURO net per:				
				from 1000 g	from 100 g	from 10 g	from 1 g	Portion
CLEMATIS (Ranunculaceae)								
CO 555	 integrifolia Mongolian Bells® ,  , 35 cm, wide spectrum of colors, pink, white, lavender and blue, compact habit, V-IX, Z3-9, pure seed  	10	9	–	448,00	64,00	8,20	5,00
CO 570	vitalba , Old Man's Beard, 300 cm, very high climbing, white, VII-IX, Z3-8,..... pure seed  	20	1	–	96,00	15,00	2,40	2,00
CNICUS (Asteraceae, <i>Compositae</i>)								
CO 576	 benedictus (CENTAUREA) , Blessed Thistle, 40 cm, yellow, VI-VIII, Z5-9, ☉  	60	15	–	64,00	12,00	2,00	2,00
COCHLEARIA (Brassicaceae)								
CO 574	 officinalis , Spoonwort, Scurvy Grass, 30 cm, white, spoon-like wintergreen foliage, V-VIII, Z5-8 .  	2	15	–	256,00	36,00	5,40	2,00
CODONOPSIS (Campanulaceae)								
CO 582	 pilosula , Tang Shen (Dong-Sen), up to 120 cm climbing, greenish yellow bellflowers, VI-IX, Z5-8, TCM plant 	3	15	–	–	112,00	16,00	3,20
COLCHICUM (Colchicaceae, Liliaceae)								
CO 593	 autumnale , Autumn Crocus, 15 cm, lilac, poisonous! VIII-X, Z4-7  	30	6	576,00	96,00	12,00	2,00	2,00
CORIANDRUM (Apiaceae, <i>Umbelliferae</i>)								
CO 640	sativum , Coriander, 50 cm, white-pink umbels, VI-IX, Z5-10, ☉  	30	16	72,00	18,00	6,00	2,00	3,00
CO 643	sativum 'Typ Dwarf Lemon' , Lemon Coriander, 30 cm, white to soft pink, early blooming, fast fruiting, fresh fruity lemon aroma of leaf and grain, sturdy, compact habit, VI-VII, Z5-10, ☉  	50	15	112,00	18,00	6,00	2,00	3,00
CO 641	sativum 'Type Slow Bolt' , Foliage Coriander, 50 cm, productive foliage selection, IX, Z5-10, ☉  	30	16	96,00	18,00	6,00	2,00	3,00
COTA tinctoria - see ANTHEMIS tinctoria								
CRAMBE (Brassicaceae, <i>Cruciferae</i>)								
CO 674	 maritima ,   , Sea Kale, 70 cm, white, blue-grey foliage, V-VII, Z5-8 	100	8	860,00	136,00	18,00	2,60	9,00
CRITHMUM (Apiaceae, <i>Umbelliferae</i>)								
CO 677	 maritimum , Sea Samphire, Sea Fennel, 40 cm, yellowish umbels, blue-green, feathery, succulent leaves, VII-IX, Z6-9.  	15	9	–	288,00	36,00	4,60	3,20
CRYPTOTAENIA (Apiaceae, <i>Umbelliferae</i>)								
CO 718	 japonica f. viridis , Japanese Parsley, 60 cm, white, popular asian herb, V-VI, Z4-9.  	7,5	15	–	588,00	96,00	12,00	3,20
CYNARA (Asteraceae, <i>Compositae</i>)								
CO 704	cardunculus ssp. flavescens ,  , Cardoon, 100 cm, blue, excellent cut flowers, variable, VII-X, Z6-10.  	80	15	288,00	42,00	7,20	2,00	3,60
CO 706	cardunculus f. scolymus Green Globe Typ [Imperial Star Typ] , Vegetable Globe Artichoke, 120 cm, very large bright violet blossoms, purple coloured phyllaries, solid and heavy buds, thornless foliage. Semi-early flowering cultivar especially suited for floral arrangements, VII-X, Z6-10.  	100	15	–	96,00	12,00	2,00	4,80
CYNOGLOSSUM (Boraginaceae)								
CO 709	officinale , Dog's Tongue, 75 cm, purple-blue, V-VII, Z5-9, ☉.  	60	8	320,00	64,00	12,00	2,40	4,80
DAUCUS (Apiaceae)								
DO 010	carota ssp. carota , Queen Anne's Lace, 120 cm, white umbels, VII-X, Z2-9, ☉   visnaga - see AMMI	5	16	172,00	32,00	8,00	2,40	2,00
DIANTHUS (Caryophyllaceae)								
DO 162	carthusianorum , Clusterhead Pink, 40 cm, purple-red, VI-IX, Z3-8. 	3	15	–	240,00	32,00	4,00	2,00
DO 320	superbus , Fringed Pink, 45 cm, pink-soft lilac, fragrant, VI-IX, Z3-9  	1	15	–	–	48,00	6,00	2,20
DICTAMNUS (Rutaceae)								
DO 340	albus var. purpureus (fraxinella) ,  , Dittany (Bai-Xian-Pi), 80 cm, pink flowers with dark veins, white roots, V-VI, Z3-8, TCM plant 	40	19	–	240,00	32,00	4,20	4,20
DIGITALIS (Scrophulariaceae)								
DO 350	grandiflora (ambigua) ,  , Yellow Foxglove, 80 cm, with large yellow bellflowers, VI-VII, Z3-8, poisonous! 	1	15	–	240,00	34,00	5,20	2,00
DO 366	lanata [Café Crème] , Woolly Foxglove, 80 cm, white-brown, VI-VIII, Z6-9, poisonous! 	1	15	–	198,00	30,00	4,20	2,00
DO 386	purpurea , Common Foxglove, 120 cm, red, rarely white, VI-VII, Z4-8, poisonous!  	1	15	288,00	48,00	8,00	2,00	2,00
DO 383	purpurea 'Berggold' , Red Foxglove, 140 cm, red, productive foliage, variety with high content of Digitalin in the seeds, good hardy, VI-VII, Z3-8, poisonous!  	1	15	560,00	96,00	16,00	2,80	2,00
DIPLOTAXIS (Brassicaceae, <i>Cruciferae</i>)								
DO 406	tenuifolia (RUCOLA silvatica) , Italian Wild Arugula, Sylvestra, 30 cm, yellow, robust and aromatic, strongly pinnatifid dark-green foliage, perennial, V-X, Z5-9  	1	15	236,00	48,00	10,00	2,00	2,00
DIPSACUS (Dipsacaceae)								
DO 410	sativus , Fuller's Teasel, Card's Thistle, 200 cm, white to lilac, use for dried flower bouquets, VII-VIII, Z4-8, ☉  	10	15	–	96,00	22,00	4,80	2,40
DO 416	sylvestris (fullonum) , Common Teasel, 200 cm, lilac, excellent for dry flower bouquets, VII-VIII, Z3-9  	10	15	320,00	78,00	18,00	3,60	2,00
DORYCNium (LOTUS) (Papilionaceae, <i>Leguminosae</i>)								
DO 442	 hirsutum ,  , 40 cm, pink, silky-silvery leaves, very decorative, VII-IX, Z6-10. 	10	9/10	–	–	86,00	9,80	6,00
DRACOCEPHALUM (Lamiaceae, <i>Labiatae</i>)								
DO 461	 moldavica , Moldavian Dragonhead, Moldavian Balm, 40 cm, blue, selected form with high content of oil and high foliage yields, VII-VIII, Z6-10, ☉  	5	15	198,00	32,00	5,20	2,00	2,00

					Gram to get 1 000 plants	N° of the sowing direction	Prices in EURO net per:				
							from 1000 g	from 100 g	from 10 g	from 1 g	Portion
DUCHESNEA (Rosaceae)											
NEW! DO 464		indica (FRAGARIA) [Tutti Frutti] , Indian Strawberry, 10 cm, yellow, upright red berries, groundcover, VI-IX, Z4-9	Ⓚ Ⓣ Ⓟ Ⓡ		1	16	—	1160,00	148,00	18,00	3,40
ECHINACEA (RUDBECKIA) (Asteraceae, <i>Compositae</i>)											
EO 003		angustifolia , Narrow Coneflower, up to 50 cm, pink to red, petals shorter but wider than E. pallida, with yellow pollen, VI-X, Z3-8	Ⓡ Ⓡ		10	9	1340,00	192,00	24,00	3,60	3,60
EO 004		pallida , Pale Coneflower, 80 cm, pink, long hanging petals, with whitish pollen, VII-IX, Z3-8	Ⓡ Ⓡ		15	15	540,00	68,00	14,00	2,40	2,40
EO 006		paradoxa var. paradoxa , 80 cm, bright yellow, very unusual, VII-X, Z4-9	Ⓡ Ⓡ		15	9	—	392,00	48,00	6,00	4,50
RO 180		purpurea (RUDBECKIA) , Purple Coneflower, 100 cm, purple-rose, VII-IX, Z3-8	Ⓡ Ⓡ		10	15	192,00	40,00	8,00	2,00	2,00
RO 186		purpurea 'Alba' [White Swan] , White Coneflower, 100 cm, white, VII-IX, Z3-8	Ⓡ Ⓡ		10	15	—	336,00	42,00	5,40	4,00
RO 182		purpurea 'Magnus' ,    , Purple Coneflower, 100 cm, intense red, wide horizontal petals, very long lasting as a cut flower, VII-IX, Z3-8	Ⓡ Ⓡ		10	15	—	336,00	42,00	5,40	4,00
EO 008		tennesseensis 'Rocky Top' ,     , Tennessee Coneflower, 60 cm, pink, bent upward petals, lanceolate foliage, VII-IX, Z4-9	Ⓡ Ⓡ		12	9	—	392,00	48,00	6,00	4,50



CNICUS benedictus



COCHLEARIA officinalis



CRAMBE maritima



DORYCNium hirsutum



DRACOCEPHALUM moldavica



DUCHESNEA indica



ECHINACEA pallida



ECHINOPS niveus 'Arctic Glow'



ECHINACEA purpurea 'Alba'

		Gram to get 1000 plants	N° of the sowing direction	Prices in EURO net per:				
				from 1000 g	from 100 g	from 10 g	from 1 g	Portion
ECHINOPS (Asteraceae, <i>Compositae</i>)								
NEW! EO 012	 niveus (sphaerocephalus hort.) ' Arctic Glow ',  80 cm, large white ballflowers, red stems, green-silvery foliage, VI-VIII, Z3-8, pure seed 	50	15	980,00	140,00	20,00	2,80	2,80
EO 014	rito , 100 cm, blue blossom heads, VII-IX, Z3-8, pure seed 	50	15	980,00	140,00	20,00	2,80	2,80
ECHIMUM (Boraginaceae)								
EO 017	ruscicum (rubrum), Russian Bugloss, 60 cm, dark red flower panicles, VI-VIII, Z5-8,  	5	15	–	–	96,00	12,00	4,80
EO 015	 ruscicum f. nanum (amoenum) ' Red Feathers ',  35 cm, russet-red compact flower spikes, narrow foliage, reblooms after dead-heading, V-VIII, Z3-9  	5	15	–	–	144,00	18,00	6,00
EO 020	vulgare , Common Viper's Bugloss, 80 cm, brilliant blue, V-VIII, Z3-11,   	5	9	384,00	64,00	16,00	2,80	2,00
EPILOBIUM (Onagraceae)								
EO 030	angustifolium (CHAMAENERION), Rosebay Willowherb, Fire Weed, 110 cm, lilac-rose, VI-IX, Z2-7,   	1	15	–	256,00	32,00	4,00	2,00
EO 042	hirsutum , 70 cm, wine-red, VI-VIII, Z3-9  	1	15	–	256,00	32,00	4,00	2,00
ERUCA (Brassicaceae, <i>Cruciferae</i>)								
EO 135	vesicaria ssp. sativa , Italian Rocket Salad, Arugula, 30 cm, white-yellow, pinnately lobed leaves, V-VII, Z6-9,  	10	15	96,00	24,00	6,00	2,00	2,00
ERYNGIUM (Apiaceae, <i>Umbelliferae</i>)								
EO 165	maritimum , Sea Holly, 40 cm, blue-green, silver-grey foliage, VI-X, Z4-10   	50	9	–	294,00	36,00	4,50	9,00
ESCHSCHOLZIA (Papaveraceae)								
EO 310	californica , California Poppy, 30 cm, yellow-orange, VI-X, Z5-10,    	5	15	396,00	70,00	8,60	2,00	2,00
EO 320	californica mixed colours , California Poppy, 30 cm, yellow, orange, rose and red shades, VI-X, Z5-10,    	5	15	–	96,00	15,00	2,60	2,00
EUPATORIUM (Asteraceae, <i>Compositae</i>)								
EO 200	cannabinum , Hemp Agrimony, 130 cm, reddish, VI-IX, Z4-8  	2	9	1980,00	288,00	42,00	6,00	3,20
EUPHORBIA (Euphorbiaceae)								
EO 232	lathyris , 90 cm, yellow-green, decorative, crosswise arranged foliage, VI-VIII, Z5-9,  	100	1	–	144,00	18,00	3,00	4,80
FILIPENDULA (Rosaceae)								
FO 018	ulmaria , Meadowsweet, 150 cm, yellowish-white, VI-VIII, Z3-7   	5	9	660,00	112,00	18,00	3,00	2,00
FOENICULUM (Apiaceae, <i>Umbelliferae</i>)								
FO 008	vulgare , Fennel (Hui-Xiang), 120 cm, yellow umbels, VII-IX, Z6-9, TCM plant   	30	15	72,00	18,00	6,00	2,00	2,00
FO 024	vulgare 'Purpureum' (Rubrum) [Smokey, Deco, Bronze] , Bronze Leaved Fennel, 80 cm, yellow, VII-IX, Z6-9   	30	15	1240,00	178,00	26,00	3,60	2,80
FRAGARIA (Rosaceae)								
indica - see DUCHESNEA								
FO 023	 vesca , Woodland Strawberry, 20 cm, white, mostly stoloniferous, V-VI, Z4-8   	3	16	–	480,00	62,00	8,20	2,40
FO 011	 vesca var. semperflorens 'Alexandria' , Alpine Strawberry, 20 cm, white, productive variety, mostly elongated red berries, without stolons, V-IX, Z4-8   	3	16	–	768,00	96,00	12,00	2,80
FO 013	vesca var. semperflorens 'Verbesserte Rügen' [Baron Solemacher Strain] , Alpine Strawberry, 20 cm, white, long known, productive variety, mostly round red berries, without stolons, V-IX, Z4-8   	3	16	–	–	96,00	12,00	2,80
FO 019	vesca var. vesca , Woodland Strawberry, 20 cm, white, berries arching over its foliage, stoloniferous groundcover, V-VI, Z4-8   	3	16	–	480,00	62,00	8,20	8,20
GALIUM (Rubiaceae)								
GO 034	album (mollugo), White Bedstraw, 20 cm, white, V-VIII, Z3-9  	5	8	–	64,00	12,00	2,20	2,00
GO 035	odoratum (ASPERULA odorata), Sweet Woodruff, 15 cm, white, V-VI, Z4-7, pure seed   	30	1	–	–	36,00	5,20	3,60
GO 036	verum , Lady's Bedstraw, 30 cm, yellow, abundant flower panicles, V-IX, Z3-7   	5	15	496,00	78,00	12,00	2,20	2,00
GENTIANA (Gentianaceae)								
GO 086	asclepiadea ,  Willow Gentian, 40 cm, dark blue, grows upright, blossoms axillary, VII-IX, Z3-7 	1	1	–	–	192,00	24,00	4,80
GO 134	 lutea , Yellow Gentian, Bitterwort, 100 cm, pure yellow, especially decorative and long lasting, VI-VIII, Z3-7  	5	1	920,00	154,00	26,00	4,20	2,80
GERANIUM (Geraniaceae)								
GO 220	 robertianum , Herb Robert, 40 cm, purple-rose, forms rosettes, IV-X, Z4-9,   	5	16	–	450,00	60,00	8,00	4,00
GEUM (Rosaceae)								
GO 240	coccineum Borisii-Strain [Tango, Queen of Orange, Cooky] , Dwarf Orange Aven, 40 cm, orange-red, V-VI, often reblooming, IX-X, Z4-9   	5	8	–	–	144,00	16,00	5,40
GO 262	urbanum , Wood Aven, St. Benedict's Herb, 30 cm, yellow, V-X, Z5-9   	10	9	480,00	96,00	20,00	4,00	2,00
GLAUCIUM (Papaveraceae, <i>Fumariaceae</i>)								
GO 290	flavum , Horned Poppy, 50 cm, yellow-orange, blue-grey foliage, VI-VII, Z6-9  	4	9	–	–	64,00	8,40	2,40
GO 291	 flavum var. aurantiacum (flavum f. fulvum) [Burnt Orange] , Horned Poppy, 50 cm, orange-red, blue-green foliage, V-VII, Z6-9  	4	9	–	–	96,00	12,40	3,20
GLECHOMA (Lamiaceae, <i>Labiatae</i>)								
GO 296	hederacea , Ground Ivy, Alehoof, 20 cm, brilliant violet, dark green foliage, IV-V + IX-X, Z2-10   	2	1	–	–	–	22,00	3,20

			Gram to get 1000 plants	N° of the sowing direction	Prices in EURO net per:				
					from 1000 g	from 100 g	from 10 g	from 1 g	Portion
GLYCYRRHIZA (Papilionaceae, <i>Leguminosae</i>)									
GO 316	echinata , Roman Liquorice, 200 cm, lilac, VI-IX, Z7-10	® ① ②	20	9	—	442,00	68,00	9,60	9,60
GO 317	glabra , Spanish Liquorice, 120 cm, pale blue, VII-IX, Z7-10	® ① ②	20	9	3480,00	442,00	68,00	9,60	9,60
GRINDELIA (Asteraceae, <i>Compositae</i>)									
GO 324	robusta (camporum) , Gumplant, Gumweed, 100 cm, yellow umbels, VI-VIII, Z6-10	® ①	5	15	2280,00	380,00	56,00	7,20	3,60
HELICHRYSUM (Asteraceae, <i>Compositae</i>)									
HO 082	italicum , (AGM), Italian Everlasting, Curry Plant, 50 cm, yellow, silvery grey-green foliage, VI-VIII, Z7-10	® ①	0,5	15	—	1560,00	196,00	28,00	6,00
HIBISCUS (Malvaceae)									
HO 212	Moscheutos-Hybr. 'Galaxy' , JEL, 120 cm, very large flowering mixture with exceptional colour display, blossoms up to 25 cm ø, clear colours, white, light pink, rose, dark rose, light red, deep red, mostly with red center, strong and healthy foliage, strict upright habit, very hardy selection from Gilberg Farms, flowers the first year if sown early, VI-X, Z5-9	® ①	30	20	—	—	58,00	7,20	3,60
HIERACIUM (Asteraceae, <i>Compositae</i>)									
HO 228	pilosella (PILOSELLA officinarum) , Hawkweed, 15 cm, yellow, grey felt-like, VI-VIII, Z4-10	® ① ② ③	0,5	15	—	680,00	98,00	16,00	2,00
HUMULUS (Cannabaceae)									
HO 280	lupulus , Common Hops, 200 cm, greenish-yellow, hanging flowers, green foliage, VII-IX, Z4-9	® ①	10	1	1470,00	245,00	40,00	6,80	6,80
HYOSCYAMUS (Solanaceae)									
HO 308	niger , Black Henbane, 50 cm, cream colored flowers with purple veins, V-IX, Z4-7, ☹, poisonous!	①	2	9	—	310,00	36,00	4,20	2,00
HYPERICUM (Clusiaceae, <i>Guttiferae</i>)									
HO 336	perforatum , St. John's Wort, 60 cm, yellow, V-VIII, Z2-9	® ①	2	16	576,00	72,00	9,20	2,00	2,00
HO 337	perforatum 'Topaz' , 40 cm, yellow, higher hypericin concentration, V-VIII, Z2-9	® ①	2	16	768,00	96,00	12,00	2,00	2,00
HYSSOPUS (Lamiaceae, <i>Labiatae</i>)									
HO 347	officinalis , Hyssop, 45 cm, mostly blue, rarely pink and white, VI-VIII, Z3-11	® ① ② ③	5	15	432,00	72,00	12,00	2,00	2,00
INULA (Asteraceae, <i>Compositae</i>)									
IO 058	helenium , Elecampane, 150 cm, yellow, VII-X, Z3-8	® ② ③	5	15	—	346,00	48,00	8,00	4,20



FRAGARIA vesca



FRAGARIA vesca var. semp. 'Alexandria'



GERANIUM robertianum



HYOSCYAMUS niger



GLAUCIUM flavum var. aurantiacum

			Gram to get 1000 plants	N° of the sowing direction	Prices in EURO net per:				
					from 1000 g	from 100 g	from 10 g	from 1 g	Portion
IRIS (Iridaceae)									
domestica - see BELAMCANDA chinensis									
IO 144	pseudacorus , (AGM), Pale Yellow Iris, 100 cm, VI-VII, Z3-9	Ⓚ Ⓣ Ⓟ Ⓡ	100	1/10	336,00	48,00	12,00	3,20	4,80
IO 167	sibirica, wild form , (AGM), Siberian Iris, blue, 70 cm, VI-VII, Z3-9	Ⓚ Ⓣ Ⓟ Ⓡ	30	1/10	576,00	96,00	12,00	3,20	3,20
IO 192	versicolor , Blue Flag Iris, 100 cm, blue-violet, V-VIII, Z3-8	Ⓚ Ⓣ Ⓟ Ⓡ	30	1/10	960,00	180,00	30,00	4,80	4,80
ISATIS (Brassicaceae, <i>Cruciferae</i>)									
IO 300	tinctoria , Woad (Ban Lan Gen), 60 cm, yellow, V-VII, Z6-9, TCM plant, ☉	Ⓚ Ⓣ Ⓟ Ⓡ	3	15	—	320,00	44,00	6,00	3,00
KNAUTIA (Dipsacaceae)									
KO 030	arvensis , Blue Buttons, 50 cm, violet-blue, V-VIII, Z4-10	Ⓚ Ⓣ Ⓟ Ⓡ	20	16	—	384,00	48,00	6,20	3,40
LAVANDULA (Lamiaceae, <i>Labiatae</i>)									
LO 070	angustifolia (officinalis) , True Lavender, 50 cm, blue, VII-IX, Z5-9	Ⓚ Ⓣ Ⓟ Ⓡ	5	9	672,00	84,00	12,00	2,00	2,00
LO 078	angustifolia Munstead-Strain , Lavender, 40 cm, blue, VII-X, Z5-9	Ⓚ Ⓣ Ⓟ Ⓡ	5	9	2560,00	320,00	40,00	5,20	2,80
LO 082	latifolia , Common Lavender, 80 cm, blue-violet, aromatic, VI-VII, Z6-9	Ⓚ Ⓣ Ⓟ Ⓡ	5	9	—	320,00	40,00	5,20	2,80
officinalis - see angustifolia									
NEW! LO 068	multifida , Fernleaf Lavender, Egyptian Lavender, 60 cm, blue-violet, pinnatifid foliage, Oregano-scented, VI-IX, Z8-10	Ⓚ Ⓣ Ⓟ Ⓡ	3	9	—	648,00	82,00	9,60	4,20
LO 088	pedunculata (stoechas ssp. pedunculata) , (AGM), Spanish Lavender, 60 cm, blue-purple, long stalks, larger bract-like flowers, green foliage, VI-X, Z7-9	Ⓚ Ⓣ Ⓟ Ⓡ	5	9	—	544,00	68,00	8,60	3,80
LO 086	stoechas (stoechas ssp. stoechas) , (AGM), Spanish Lavender, 60 cm, dark purple, short stalks, grey-green leaves, VI-X, Z7-9	Ⓚ Ⓣ Ⓟ Ⓡ	5	9	—	544,00	68,00	8,60	3,80
LEONURUS (Lamiaceae, <i>Labiatae</i>)									
LO 112	cardiaca , True Motherwort, 120 cm, light red, VI-IX, Z3-9	Ⓚ Ⓣ Ⓟ Ⓡ	2	15	520,00	84,00	12,00	3,00	2,00
LO 115	japonicus (heterophyllus, sibircus) 'BLBP 02' , Chinese Motherwort (Yi-Mu-Cao), 140 cm, lilac pink, whorled inflorescences, pinnatifid foliage, tetragonal stems, reliable first year flowering, high content of extract and flavanoids, high herb yield, VII-X, Z5-9, TCM plant, ☉	Ⓚ Ⓣ Ⓟ Ⓡ	3	16	—	180,00	30,00	5,00	2,50
LEPIDIUM (Brassicaceae, <i>Cruciferae</i>)									
LO 107	latifolium , Perennial Pepperweed, 100 cm, white panicles, broad foliage with a spicy horseradish aroma, VI-VIII, Z4-8	Ⓚ Ⓣ Ⓟ Ⓡ	0,25	8	—	—	—	64,00	4,20
LO 105	sativum , Garden Cress, 10 cm, white, uniform and fast growing cultivars, also suitable for outdoor field production, V-VII, Z5-11, ☉	Ⓚ Ⓣ Ⓟ Ⓡ	10	15	32,00	6,00	4,00	2,00	2,00



LEPIDIUM latifolium



LIGUSTICUM scoticum



LOBELIA inflata



LYCHNIS flos-cuculi



LYCIUM barbatum



MELISSA officinalis 'Gold Leaf'



MENTHA cervina



MENTHA cervina 'Alba'

		Gram to get 1 000 plants	N° of the sowing direction	Prices in EURO net per:				
				from 1000 g	from 100 g	from 10 g	from 1 g	Portion
LEUCANTHEMUM (Asteraceae, <i>Compositae</i>)								
CO 424	vulgare (CHRYSANTHEMUM leucanthemum, irtutianum) , Ox-eye Daisy, 60 cm, pure white with yellow disc, V-IX, Z2-8	3	15	320,00	60,00	12,00	2,40	2,00
LEVISTICUM (Apiaceae, <i>Umbelliferae</i>)								
LO 150	officinale , Lovage, Love Parsley, 160 cm, yellow-green, VI-IX, Z3-9	25	16	378,00	54,00	7,80	2,00	2,00
LIGUSTICUM (Apiaceae, <i>Umbelliferae</i>)								
LO 227	 scoticum (ANGELICA) , Scots Lovage, 50 cm, brilliant white umbels, purple colored stems, glossy, dark green, attractive foliage, golden fall color, perennial, VI-VIII, Z3-8	10	8	–	562,00	78,00	9,80	7,20
LINUM (Linaceae)								
LO 335	perenne [Himmelszelt] , Perennial Flax, blue, 40 cm, VI-VIII, Z5-8	10	15	–	288,00	36,00	4,80	2,00
LOBELIA (Campanulaceae)								
LO 366	 inflata , Indian Tobacco, 50 cm, light blue, showy inflated seed heads, VI-VIII, Z4-9, ☉	0,15	16	–	396,00	48,00	6,00	2,00
LUPINUS (Papilionaceae, <i>Leguminosae</i>)								
LO 434	Perennis-Hybr. 'Russellmixture' [Band of Nobles] , 100 cm, VI-VIII, Z3-8	50	7/10	960,00	128,00	18,00	2,80	4,20
LYCHNIS (Caryophyllaceae)								
LO 484	 flos-cuculi (SILENE) , Ragged Robin, 40 cm, pink, V-VI, Z3-8	0,5	16	–	160,00	22,00	3,00	2,00
LYCIUM (Solanaceae)								
LO 512	 barbarum (chinense) , Goji-Berry, Chinese Wolfberry (Gou-Qi-Zi, Di-Gu-Pi), up to 300 cm, lilac flowers, yellow to orangered berries, shrubby growth, VII-IX, Z5-9	2	16	–	720,00	96,00	13,20	6,60
LYCOPUS (Lamiaceae, <i>Labiatae</i>)								
LO 516	europaeus , Gypsywort, Bugleweed, 60 cm, white, bushy growth, VI-VIII, Z4-9	1	1	–	160,00	20,00	2,60	2,00
LYSIMACHIA (Primulaceae)								
LO 527	vulgaris , Yellow Loosestrife, 80 cm, golden, VI-VIII, Z4-9	1	9	–	160,00	20,00	2,60	2,00
LYTHRUM (Lythraceae)								
LO 530	salicaria [Rosy Gem, Red Beauties] , Purple Loosestrife, 120 cm, carmine-pink, VI-IX, Z3-9	1	9	920,00	128,00	16,00	2,00	2,00
MALVA (Malvaceae)								
MO 042	sylvestris , Common Mallow, High Mallow, 100 cm, pink-violet, variable, VI-IX, Z4-8	10	8	180,00	32,00	7,20	2,00	2,00
MO 043	 sylvestris ssp. mauritiana [Bibor Felho] , Blue Mallow, 100 cm, dark violet, VI-IX, Z4-8	10	8	180,00	32,00	7,20	2,00	2,00
MO 041	 sylvestris 'Zebrina' , 120 cm, white with violet, VI-IX, Z4-8	10	8	–	72,00	12,00	2,00	2,00
MARRUBIUM (Lamiaceae, <i>Labiatae</i>)								
MO 050	vulgare [Pompon] , White Horehound, 40 cm, white, VI-VIII, Z3-9	5	15	520,00	96,00	16,00	2,80	2,00
MATRICARIA - see CHAMOMILLA								
MELILOTUS (Papilionaceae)								
MO 112	officinalis (arvensis) , Yellow Melilot, Sweet Clover, 100 cm, yellow, VI-IX, Z4-10,	5	15	68,00	20,00	6,00	2,00	2,00
MELISSA (Lamiaceae, <i>Labiatae</i>)								
MO 098	officinalis , Lemon Balm, 40 cm, pale yellow, V-VII, Z3-9	3	16	360,00	64,00	12,00	2,20	2,00
MO 101	officinalis ssp. altissima , Crete Balm, Lime Balm, 60 cm, white, gently pubescent, lime-scented foliage, VI-VIII, Z4-10	3	15	–	–	120,00	16,00	4,00
NEW! MO 084	 officinalis 'Gold Leaf' [All Gold] ,  Golden Lemon Balm, 40 cm, inconspicuous flowers, striking golden foliage in spring, changing to light green, for semi-shade, V-VII, Z3-9.	2	16	–	–	180,00	24,00	5,20
	officinalis 'Lemona' , Lemon Balm, 40 cm, yellowish-white, good hardy, productive and protected foliage cultivar, dwarf creeping at first, 2nd year upright habit, very high yielding, IV-VI, Z4-10	3	16	860,00	122,00	18,00	3,20	2,00
MO 097	officinalis 'Quedlinburger Niederliegende' , 40 cm, yellowish-white, productive foliage variety with high yields, first procumbent, second year upright habit, IV-VI, Z4-10	3	16	432,00	72,00	12,00	2,20	2,00
MENTHA (Lamiaceae, <i>Labiatae</i>)								
MO 085	aquatica , Water Mint, 50 cm, pink-lilac, entire plant strongly aromatic, VII-X, Z4-8.	0,5	9	–	–	96,00	12,00	4,00
MO 103	 cervina (PRESLIA) , Water Spearmint, 20 cm, lilac, narrow leaves, highly aromatic, VI-IX, Z6-9.	0,25	9	–	–	96,00	12,00	3,80
MO 104	 cervina 'Alba' (PRESLIA) , White Water Spearmint, 20 cm, white, lanceolate leaves, very aromatic, VI-IX, Z6-9	0,25	9	–	–	–	–	4,20
MO 087	pulegium , Pennyroyal, 20 cm, lilac, VI-VIII, Z6-10	0,5	16	–	376,00	48,00	7,20	2,00
MO 089	Spicata-Hybr. , Spearmint, Lamb Mint, 30 cm, pink-white, variable, VI-X, Z2-9	0,5	16	4660,00	576,00	72,00	9,00	3,00
MO 091	 suaveolens (rotundifolia hort.) , Applemint, Round-leaved Mint, 30 cm, pink-white, hairy leaves, variable, VII-IX, Z5-8	0,5	16	–	512,00	64,00	8,00	3,20
viridis - see spicata								
MERTENSIA (Boraginaceae)								
NEW! MO 092	 maritima ssp. asiatica (simplicissima) [Silver Ocean] , Oyster-Leaf, 15 cm, brilliant blue, grey-bluish foliage, V-VII, Z3-7	10	8	–	–	520,00	64,00	9,80

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MONARDA (Lamiaceae, <i>Labiatae</i>)								
MO 195	 Citriodora-Hybr. 'Bergamo' ,  , 60 cm, intensive rose-purple, compact habit, flowering first year from seed, short lived, VI-IX, Z5-8    	1	15	—	—	324,00	36,00	4,80
MO 196	 didyma , Bergamot, Bee Balm, Osmego-Tea, 110 cm, mostly red, variable, VI-IX, Z4-8    	3	15	—	1840,00	196,00	22,00	5,60
MO 208	fistulosa , Horsemint, Wild Bergamot, 80 cm, mostly lilac, for dry locations, VII-IX, Z4-8    	3	15	—	960,00	120,00	15,00	3,80
NASTURTIUM (Brassicaceae)								
NO 012	officinale , Watercress, 40 cm, evergreen, V-X, Z5-8  	1	15	—	172,00	28,00	4,80	2,40
NEPETA (Lamiaceae, <i>Labiatae</i>)								
NO 020	cataria , Common Catmint, 60 cm, white, VI-X, Z3-8    	3	9	320,00	54,00	9,00	2,00	2,00
NO 021	cataria ssp. citriodora , Lemon Catmint, 60 cm, white, lemon scented, VI-X, Z3-8 . . .    	3	9	480,00	96,00	16,00	3,20	2,00
NO 024	racemosa (mussinii) ,  , Catmint, 30 cm, light blue, blooms continuously, V-IX, Z3-8 . . .  	3	15	—	336,00	42,00	5,40	2,00
NEW! NO 034	 tuberosa , Spanish Catmint, 80 cm, violet candles, grey-green foliage, tuberous roots, VI-IX, Z5-10   	1	9	—	252,00	36,00	5,20	2,00
NIGELLA (Ranunculaceae)								
NO 045	sativa , Black Cumin, Fennel Flower, 25 cm, white-bluish, fine foliage, inflated seed capsules, VI-VIII, Z5-11,    	10	15	78,00	16,00	4,00	2,00	2,00
OCIMUM (Lamiaceae, <i>Labiatae</i>)								
OO 023	 africanum (canum, americanum hort. sanctum hort.) 'Temperate Tulsi' (Rama Tulsi misap.) , Wild Basil, 40 cm, pink, rich flowering, healthy bushy habit, robust and fast growing also in cool temperatures, traditional tea herb, V-X, Z8-11    	1,5	15	—	144,00	24,00	5,00	2,50
OO 001	americanum 'Typ Lime' , Lemon Basil, 40 cm, pale lilac-white, VI-IX, Z10-11,   	4	15	288,00	40,00	8,00	2,50	2,00
OO 020	 basilicum 'Ararat' , Red Spotted Basil, 40 cm, pink flowers, dark purple spikelets, purplish red stems, vigorous foliage, reddish violet speckled, unique anise-licorice flavor, VII-IX, Z10-11,   	4	15	498,00	72,00	12,00	2,50	2,50
OO 003	basilicum 'Typ Cinnamon' , Cinnamon Basil, 40 cm, lavender-pink, green-purple foliage, VI-IX, Z9-11,   	4	15	288,00	40,00	8,00	2,50	2,00
OO 019	 basilicum 'Typ Dark Opal' , Purple-leaved Basil, 30 cm, pink, purple-black, delicate aromatic foliage, VI-IX, Z10-11,   	4	15	288,00	40,00	8,00	2,50	2,00
NEW! OO 002	basilicum 'Typ Fino Verde' , Small Leaved Basil, 50 cm, white, fine foliage, VI-IX, Z10-11,   	4	15	432,00	72,00	12,00	2,50	2,50
OO 017	basilicum F₁-Genoveser-Hybr. 'Adi' , Pot-Plant Basil, 20 cm, fusarium resistant F ₁ -Hybr., round, healthy foliage, VI-IX, Z10-11,   	4	15	498,00	72,00	12,00	2,50	2,50
OO 016	 basilicum F₁-Genoveser-Hybr. 'Aroma 2' , Large Sweet Basil, 50 cm, fusarium resistant F ₁ -Hybr., white, large, round, healthy foliage, VI-IX, Z10-11,   	4	15	498,00	72,00	12,00	2,50	2,50
OO 004	basilicum 'Typ Genoveser' , Large Sweet Basil, 50 cm, white, best for pesto, large round foliage, VI-IX, Z10-11,   	4	15	148,00	28,00	8,00	2,50	2,00
OO 006	 basilicum var. minutum 'Typ Greek' , Greek Bush Basil, 20 cm, white, very compact, bushy habit, small leaves, excellent as pot plant, VII-X, Z10-11,   	4	15	—	72,00	12,00	2,50	2,50
OO 008	basilicum 'Typ Red Rubin' , Purple-leaved Basil, 30 cm, pink-white, bronze-purple, excellent flavour, decorative foliage, VI-IX, Z10-11,   	4	15	498,00	72,00	12,00	2,50	2,50
OO 021	basilicum var. thrysiflorum 'Typ Thai' , Thai Basil, 60 cm, red-purple, leaves with anise flavour, VII-IX, Z10-11,   	3	15	498,00	72,00	12,00	2,50	2,50
OENOTHERA (Onagraceae)								
OO 011	biennis , Evening Primrose, 80 cm, yellow, VI-VIII, Z3-8,    	5	9	180,00	36,00	9,60	2,00	2,00
ORIGANUM (Lamiaceae, <i>Labiatae</i>)								
OO 093	majorana , Sweet Marjoram, Garden Marjoram, 45 cm, white-pink, VI-VII, Z6-9,    	2	15	720,00	120,00	22,00	3,80	2,00
OO 091	vulgare hort. , Perennial Marjoram, 40 cm, pink, VII-X, Z4-8,     	3	15	588,00	84,00	12,00	2,00	2,00
OO 092	vulgare var. albidiflorum (Album) , White Marjoram, 35 cm, white umbels, VI-IX, Z4-8    	0,5	16	—	—	96,00	16,00	3,40
OO 096	vulgare ssp. hirtum (heracleoticum) , Pizza Oregano, Greek Oregano, 45 cm, mostly white, rarely pink, intensive fragrance, compact, VII-X, Z4-8    	3	15	—	288,00	36,00	6,00	2,00
ORLAYA (Apiaceae, <i>Umbelliferae</i>)								
OO 097	 grandiflora [White Lace, White Finch] , White Lace Flower, 60 cm, magnificent white umbels with large outer blossoms, feathered foliage, shortlived but outstanding, VI-IX, Z5-9   	50	9	980,00	156,00	24,00	3,75	3,75
PAEONIA (Paeoniaceae)								
PO 003	officinalis ssp. banatica , Common Peony, 60 cm, red with yellow stamens, V-VI, Z5-8 . . .  	250	6/10	960,00	120,00	15,00	2,00	9,00
PAPAVER (Papaveraceae)								
PO 095	rhoeas , Corn Poppy, 50 cm, brilliant red, V-VIII, Z4-8,    	0,25	9	480,00	68,00	12,00	2,00	2,00
PASTINACA (Apiaceae, <i>Umbelliferae</i>)								
PO 152	sativa , Parsnip, 120 cm, yellow umbels, VII-VIII, Z4-8,    	7	8	640,00	148,00	28,00	4,80	2,40
PENSTEMON (Scrophulariaceae)								
PO 241	 pseudospectabilis ,  , Desert Beardtongue, 80 cm, intense deep pink, grey-bluish foliage, V-VII, Z5-9  	2	9	—	640,00	86,00	9,60	4,80
PERILLA (Lamiaceae)								
PO 267	frutescens var. crispa (nankinensis) 'Red Shiso' , Beefsteak Plant (Zi-Su-Ye), 50 cm, pink, purple-crenated foliage, IX-X, Z7-11, TCM plant,   	3	16	—	—	48,00	6,20	3,10
PETASITES (Asteraceae, <i>Compositae</i>)								
PO 262	hybridus (officinalis) , Butterbur, Umbrella Plant, 100 cm, purple-rose, III-IV, Z3-8  	1	9	—	192,00	24,00	3,20	2,00

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PETROSELINUM (Apiaceae, <i>Umbelliferae</i>)									
PO 282	crispum var. crispum , Double Curled Parsley, 40 cm, yellow, double-crinkled foliage, VI-VIII, Z5-9, ☉	Ⓚ Ⓢ	5	15	196,00	26,00	7,80	2,20	2,00
PO 284	crispum var. neapolitanum (hortense) , Italian Parsley, Plain Parsley, 60 cm, yellow, plain glossy foliage, high yielding cultivar, VI-VIII, Z5-9, ☉	Ⓚ Ⓢ	5	15	136,00	18,00	4,50	2,20	2,00
PEUCEDANUM (Apiaceae, <i>Umbelliferae</i>)									
PO 270	ostruthium , Masterwort, 60 cm, white or reddish, a very aromatic plant, VII-VIII, Z4-8	Ⓚ Ⓢ	5	1	–	252,00	36,00	4,50	2,40
PHACELIA (Hydrophyllaceae)									
PO 278	tanacetifolia , Fiddleneck, 80 cm, blue-lilac, for the organic revitalisation of spent soil, 5gr/m², VI-X, ☉	Ⓚ Ⓢ	5	15	32,00	8,80	4,00	2,00	2,00
PHYSALIS (Solanaceae)									
PO 330	alkekengi var. franchetii 'Gigantea' [Winter Cherry] , Chinese Lantern, Bladder Cherry, 100 cm, large, red fruits, VI-VII, Z3-9	Ⓚ Ⓢ Ⓢ Ⓢ	5	9	–	216,00	36,00	6,00	3,00
PIMPINELLA (Apiaceae, <i>Umbelliferae</i>)									
PO 393	anisum , Anis, 40 cm, pink, VII-VIII, Z8-11, ☉	Ⓚ Ⓢ Ⓢ Ⓢ	4	15	198,00	34,00	6,80	2,00	2,00
PO 392	saxifraga , Burnet Saxifrage, Small Pimpernel, 50 cm, white, rarely pink or red, VII-IX, Z4-8	Ⓚ Ⓢ Ⓢ Ⓢ	3	16	480,00	68,00	12,00	2,00	2,00
PLANTAGO (Plantaginaceae)									
PO 387	asiatica , Asian Plantain (Che-Qian-Cao), 50 cm, greenish flowering spikes, very large leaves, VI-X, Z6-10, TCM plant	Ⓢ Ⓢ	0,5	9	–	–	96,00	16,00	2,40
PO 399	coronopus 'Minutina' , Buck's Horn Plantain, 15 cm, yellowish, pinnatifid foliage, mild nutty flavour, VI-IX, Z5-8, ☉	Ⓚ	1	15	–	96,00	12,00	4,00	2,00
NEW! PO 397	lanceolata , Ribwort Plantain, 50 cm, white, V-IX, Z5-8	Ⓚ Ⓢ Ⓢ Ⓢ	5	15	96,00	24,00	6,20	2,00	2,00
PO 398	lanceolata 'Libor' , Ribwort Plantain, 50 cm, white, large leaved and productive, tetraploid cultivar, V-IX, Z5-8	Ⓚ Ⓢ Ⓢ Ⓢ	5	15	126,00	36,00	12,00	4,00	2,00
PO 412	major , Common Plantain, 40 cm, yellowish-green, VI-X, Z4-8	Ⓚ Ⓢ Ⓢ Ⓢ	5	9	–	96,00	12,00	4,00	2,00
PO 400	 major 'Purple Perversion' , Fringed Purple Plantain, 40 cm, white, decorative fringed red foliage, V-VIII, Z3-9	Ⓚ Ⓢ Ⓢ	1	9	–	672,00	96,00	16,00	3,40
PO 404	 major 'Purpurea' (var. rubrifolia) , Red-leaved Plantain, 30 cm, white, very decorative, V-VII, Z3-9	Ⓚ Ⓢ Ⓢ Ⓢ	1	9	–	580,00	96,00	16,00	3,40
NEW! PO 401	 major 'Variegata' , 25 cm, white, broad dark green leaves and white marbled, V-VII, Z3-9	Ⓚ Ⓢ Ⓢ Ⓢ	1	9	–	–	72,00	9,20	3,20



MONARDA didyma



NEPETA tuberosa



OCIMUM africanum 'Temperate Tulsi'



OCIMUM basilicum 'Ararat'



ORLAYA grandiflora



PLATYCODON grandiflorus 'Mariesii'



PLANTAGO major 'Variegata'



PRIMULA veris

		Gram to get 1000 plants	N° of the sowing direction	Prices in EURO net per:				
				from 1000 g	from 100 g	from 10 g	from 1 g	Portion
PLATYCODON (Campanulaceae)								
PO 434	 grandiflorus 'Mariesii' , ^(AGM) Balloon Flower, Chinese Bellflower (Jie-Geng), 50 cm, blue, winterhardy cultivar, VI-VIII, Z3-8, TCM plant ^{® ® ®}	3	15	—	360,00	46,00	5,80	2,20
POLEMONIUM (Polemoniaceae)								
PO 480	caeruleum [Blue Pearl] , Jacob's Ladder, 60 cm, lavender-blue, abundant flowers, VI-VII, Z2-8 ^{® ®}	3	15	—	320,00	40,00	5,00	2,50
POTENTILLA (Rosaceae)								
PO 564	argentea , Silver leaved Conquefoil, 25 cm, yellow, silver-grey foliage, V-VIII, Z4-8 ^{® ®}	1	16	—	240,00	30,00	3,80	2,00
PRIMULA (Primulaceae)								
PO 910	 veris (officinalis) , ^(AGM) Cowslip, 20 cm, yellow, III-V, Z4-8 ^{® ® ® ® ®}	5	8	1400,00	176,00	22,00	3,40	2,00
PRUNELLA (Lamiaceae, <i>Labiatae</i>)								
PO 950	 vulgaris 'BLBP 01' , Allheal, Selfheal (Xia-Ku-Cao), 60 cm, blue-violet to reddish flowers in dense spikes, lanceolate foliage, with runners, high content of extract and ursolic-acid, high flower yield, VI-IX, Z3-8, TCM plant ^{® ®}	2	15	—	294,00	42,00	6,00	2,00
PULMONARIA (Boraginaceae)								
PO 969	 officinalis (ssp. obscura) , Jerusalem Cowslip, Lungwort, 25 cm, pink changing to violet, leaves mostly without spots, III-IV, Z4-8 ^{® ® ® ®}	15	1	—	224,00	32,00	4,60	4,60
PULSATILLA (ANEMONE) (Ranunculaceae)								
PO 985	 pratensis ssp. nigricans , Meadow Pasque Flower, 20 cm, dark purple, nodding flowers, IV-VI, Z4-8, ^{pure seed ® ®}	3	9	—	960,00	120,00	15,00	5,00
PO 988	 vulgaris , ^(AGM) Pasque Flower, 30 cm, lilac to blue-violet, III-IV, Z5-8, ^{pure seed ® ®}	5	9	—	448,00	56,00	7,20	3,60
PYCNANTHEMUM (Lamiaceae, <i>Labiatae</i>)								
PO 998	pilosum , American Mountain Mint, 70 cm, pale purple, aromatic foliage, VI-IX, Z4-8. . ^{® ® ® ® ®}	1	16	—	—	—	24,00	4,00
RESEDA (Resedaceae)								
RO 074	lutea , Cutleaf Mignonette, 35 cm, yellowish flower panicles, V-IX, Z5-9. ^{® ® ® ®}	2	9	—	156,00	24,00	6,00	2,60
RHEUM (Polygonaceae)								
RO 083	rhabarbarum (x hybridum) , Rhubarb, 120 cm, yellowish-white, large leaves, mostly red leafstalks, V-VI, Z2-9 [®]	60	15	336,00	48,00	8,00	2,00	3,20
RO 087	 rhabarbarum 'Glaskins Perpetual' , Garden Rhubarb, 150 cm, reddish-green, bright red and luscious leafstalks, early and late harvest possible from the second year, long known productive variety, V-VII, Z2-9 [®]	60	15	672,00	96,00	18,00	3,00	4,80
RO 076	rhabarbarum 'Victoria' , Garden Rhubarb, 150 cm, green-reddish, thick green leaf stalks, large leaved late cultivar, V-VII, Z2-9 [®]	60	15	672,00	96,00	18,00	3,00	4,80
RICINUS (Euphorbiaceae)								
RO 109	communis , Castor Bean, 150 cm, green-white, large, green foliage, VIII-X, Z8-10, poisonous! [®]	1000	8	240,00	60,00	12,00	2,00	12,00
RO 112	communis 'New Zealand Purple' , Red-leaved Castor Bean, 120 cm, white, red fruits, bronze red foliage, compact habit, VIII-X, Z8-10, poisonous! [®]	350	8	580,00	148,00	28,00	4,80	14,00
ROSMARINUS (Lamiaceae, <i>Labiatae</i>)								
RO 130	officinalis , Rosemary, 120 cm, blue, V-VII, Z5-9 ^{® ® ® ® ®}	10	8	—	860,00	96,00	12,00	3,80
RUCOLA - see DIPLTAXIS								
RUDBECKIA (Asteraceae, <i>Compositae</i>)								
NEW! RO 168	 laciniata , Wild Golden Glow, 150 cm, light yellow, VIII-IX, Z3-8 ^{® ® ® ® ®}	5	16	—	512,00	64,00	8,00	3,80
purpurea - siehe ECHINACEA								



PULSATILLA pratensis ssp. nigricans



PULSATILLA vulgaris



RUDBECKIA laciniata



RUMEX scutatus ssp. glaucus 'Silver Leaf'

			Gram to get 1000 plants	N° of the sowing direction	Prices in EURO net per:				
					from 1000 g	from 100 g	from 10 g	from 1 g	Portion
RUMEX (Polygonaceae)									
RO 206	acetosa , Sorrel, Garden Sorrel, 50 cm, reddish-brown, V-VII, Z2-9	Ⓚ Ⓣ	5	15	298,00	42,00	7,20	2,00	2,00
RO 207	acetosa 'De Belleville' , Green Sorrel, 60 cm, reddish, large leaved, green, productive foliage variety, low content of acid, long known mild cultivated form, VI-VIII, Z2-9	Ⓚ Ⓣ	5	15	252,00	36,00	7,20	2,00	2,00
RO 210	acetosella , Sheep's Sorrel, 30 cm, reddish-green, V-VII, Z2-8	Ⓚ Ⓣ	2	9	360,00	48,00	6,40	2,20	2,20
RO 228	sanguineus var. sanguineus [Bloody Dock , Red Halley , Ruby Streak], 40 cm, lanceolate leaves with distinct red-purple leaf veins, attractive foliage plant! V-VII, Z5-8	Ⓚ Ⓣ	2	15	1760,00	252,00	36,00	6,20	4,80
RO 238	scutatus , French Sorrel, 40 cm, whitish-green, shield shaped green juicy leaves with sour-lemon flavor, V-IX, Z4-8	Ⓚ Ⓣ	3	16	—	460,00	72,00	12,00	4,80
RO 240	scutatus ssp. glaucus ' Silver Leaf ', Silver French Sorrel, 40 cm, greenish-pink, bluish-silvery foliage, juicy, mildly sour flavor, V-IX, Z4-8	Ⓚ Ⓣ	3	16	—	—	—	24,00	5,20
RUTA (Rutaceae)									
RO 360	graveolens , Rue, Herb of Grace, 50 cm, yellow, evergreen, VI-VIII, Z5-9	Ⓚ Ⓣ Ⓟ	10	16	864,00	144,00	24,00	6,00	3,00
SALVIA (Lamiaceae, <i>Labiatae</i>)									
SO 069	hispanica , Mexican Chia, 150 cm, blue, seldom white, green foliage, VII-VIII, Z9-11, ☉	Ⓚ Ⓣ Ⓟ	5	16	48,00	12,00	6,00	2,00	2,00
SO 041	lavandulifolia (officinalis var. lavandulifolia) , Spanish Sage, 40 cm, blue-violet, grey-green narrow foliage, aromatic, VI-VIII, Z4-10	Ⓚ Ⓣ Ⓟ	20	9	—	360,00	48,00	6,20	4,20
SO 079	moorcroftiana x indica 'Shangri-La' , (PS), 70 cm, lavender blue, finely veined, large flowers in dense whorls, reblooming after deadheading, attractive leaf clumps, V-VIII, Z5-9	Ⓚ Ⓣ	25	9	—	296,00	38,00	6,40	4,80
SO 036	nemorosa 'Violettkönigin' [Violet Queen , West-Friesland], Steppe Sage, 60 cm, violet, V-IX, Z4-8	Ⓚ Ⓣ Ⓟ	3	15	—	480,00	60,00	7,60	2,60
SO 038	officinalis , Common Sage, 50 cm, lilac, aromatic, VI-VIII, Z4-10	Ⓚ Ⓣ Ⓟ	20	15	354,00	52,00	7,80	2,00	2,00
NEW! SO 042	officinalis f. albiflora , 40 cm, pure white, VI-VIII, Z4-10	Ⓚ Ⓣ Ⓟ	20	15	—	—	96,00	12,00	5,80
SO 040	officinalis 'Extrakta' , Extract Sage, 60 cm, lilac, foliage with high oil concentration, VI-VIII, Z4-10	Ⓚ Ⓣ Ⓟ	20	15	—	64,00	9,00	2,00	2,00
SO 046	pratensis , Meadow Sage, 60 cm, blue, VI-VIII, Z3-8	Ⓚ Ⓣ Ⓟ	5	15	1480,00	192,00	24,00	3,00	2,00
SO 058	sclarea , Clary, Muscatel Sage, 100 cm, rosy-red bracts, pale lilac flowers, branched blossom panicles, VI-VII, Z4-8, ☉	Ⓚ Ⓣ Ⓟ	10	15	648,00	120,00	22,00	4,20	2,40
SO 059	sclarea var. turkestanica 'Vatican Pink' , Clary Sage, 75 cm, very large, white-pink bracts, compact and more attractive than the species, VI-VII, Z4-8, ☉	Ⓚ Ⓣ Ⓟ	10	15	—	296,00	54,00	7,40	3,80
NEW! SO 060	sclarea var. turkestanica 'Vatican White' , 75 cm, pure white flowers, large white bracts, compact and very attractive, VI-VII, Z4-8, ☉	Ⓚ Ⓣ Ⓟ	10	15	—	296,00	54,00	7,40	3,80
SANGUISORBA (Rosaceae)									
SO 088	minor hort. , Salad Burnet, Small Burnet, 60 cm, greenish flower heads, V-VIII, Z4-8	Ⓚ Ⓣ Ⓟ	50	15	196,00	36,00	7,00	2,00	2,80
SO 098	officinalis , Great Burnet (Di-Yu), 60 cm, blood-red, VI-VIII, Z3-8, TCM plant	Ⓚ Ⓣ Ⓟ	5	16	—	264,00	36,00	5,20	2,00
SANICULA (Apiaceae, <i>Umbelliferae</i>)									
SO 110	europaea , Sanicle, 25 cm, white, V-VI, Z5-8	Ⓣ	15	1	1960,00	280,00	36,00	6,00	4,20
SANTOLINA (Asteraceae, <i>Compositae</i>)									
SO 124	chamaecyparissus ssp. tomentosa (villosa) [Santa] , Cotton Lavender, 25 cm, pale yellow, compact, silver foliage, VI-VIII, Z6-8	Ⓚ Ⓣ Ⓟ	1	15	—	1296,00	144,00	16,00	4,60
SAPONARIA (Caryophyllaceae)									
SO 144	officinalis , Soapwort, 80 cm, pale pink, VI-IX, Z3-8	Ⓚ Ⓣ	10	1	360,00	64,00	12,00	2,20	2,00
SATUREJA (Lamiaceae, <i>Labiatae</i>)									
SO 158	hortensis , Summer Savory, 25 cm, lilac-white, VII-X, Z6-9, ☉	Ⓚ Ⓣ	2	15	324,00	54,00	9,20	2,00	2,00
SO 163	montana , Winter Savory, 25 cm, white-pink, VIII-X, Z5-8, 2	Ⓚ Ⓣ	3	15	960,00	120,00	16,00	2,40	2,00
SO 164	montana ssp. illyrica (subspicata) , (PS), Purple Winter Savory, 15 cm, bright violet, VIII-X, Z5-8	Ⓚ Ⓣ Ⓟ	1	9	—	—	78,00	9,60	3,20
SCABIOSA (Dipsacaceae)									
SO 258	ochroleuca (columbaria ssp. ochroleuca) , Cream Pincushion, 80 cm, light yellow, VI-X, Z5-8 Ⓚ Ⓣ	Ⓚ Ⓣ	10	16	—	512,00	64,00	8,20	3,40



SALVIA moorcroftiana x indica 'Shangri-La'



SANTOLINA chamaecyp. ssp. tomentosa



SATUREJA montana ssp. illyrica



SEDUM reflexum

			Gram to get 1000 plants	N° of the sowing direction	Prices in EURO net per:					
					from 1000 g	from 100 g	from 10 g	from 1 g	Portion	
SCROPHULARIA (Scrophulariaceae)										
NEW!	SO 294	nodosa , Woodland Figwort, 60 cm, brown-red, VI-IX, Z6-9	Ⓚ Ⓣ	1	8	—	256,00	32,00	4,00	2,00
SCUTELLARIA (Lamiaceae, <i>Labiatae</i>)										
	SO 308	 baicalensis , Baical Scullcap (Huang-Qin), 30 cm, blue, VII-IX, Z4-8, TCM plant	Ⓚ Ⓣ	5	15	—	620,00	78,00	9,60	3,80
NEW!	SO 309	 baicalensis 'BLBP 02' , Baical Scullcap (Huang-Qin), 40 cm, bright blue flower spikes, strongly branched, bushy habit, high content of extract and baicaline, good root yield, VII-IX, Z4-8, TCM plant	Ⓚ Ⓣ	5	15	—	720,00	88,00	12,00	4,20
SEDUM (Crassulaceae)										
	SO 364	 reflexum (rupestre) , Stone Orpine, 30 cm, yellow, grey leaves, VI-VIII, Z4-9	Ⓚ Ⓣ Ⓢ	0,5	4/15	—	768,00	96,00	12,00	4,00
SIDERITIS (Lamiaceae, <i>Labiatae</i>)										
	SO 446	syriaca , South Greek Mountain Tea, 25 cm, yellow, white-grey foliage, VI-VIII, Z6-9	Ⓣ Ⓢ Ⓚ	3	15	—	—	96,00	12,00	3,60
SILENE see also LYCHNIS (Caryophyllaceae)										
	SO 454	alba (latifolia) , White Campion, 45 cm, white, V-X, Z5-8	Ⓚ Ⓢ	5	15	—	144,00	24,00	4,20	2,00
	SO 466	dioica (MELANDRIUM rubrum) , Red Campion, 80 cm, light purple-red, V-IX, Z5-8	Ⓚ Ⓢ	5	15	—	144,00	24,00	4,20	2,00
SILYBUM (Asteraceae, <i>Compositae</i>)										
	SO 499	marianum , St. Maria's Thistle, Blessed Thistle, Holy Thistle, 150 cm, purple, white marbled leaves, webbed stems and flower heads, VI-IX, Z6-9, ☉	Ⓚ Ⓢ Ⓚ	50	15	98,00	36,00	12,00	2,00	2,80
SOLIDAGO (Asteraceae, <i>Compositae</i>)										
	SO 586	virgaurea , European Goldenrod, 70 cm, yellow, VII-IX, Z4-8	Ⓢ Ⓚ	3	15	1980,00	288,00	36,00	4,50	2,00
STACHYS (Lamiaceae, <i>Labiatae</i>)										
	SO 622	officinalis (BETONICA) , Betony, Bishopswort, 30 cm, pink, VII-VIII, Z4-7	Ⓚ Ⓣ Ⓢ Ⓚ	5	8	—	260,00	36,00	4,80	2,40
STEVIA (Asteraceae)										
	SO 655	rebaudiana , Sugar Leaf, Sweet Herb, 50 cm, white, soft and light-green foliage, IX-XI, Z9-11,	pure seed Ⓚ Ⓣ Ⓢ Ⓚ	0,5	16	—	7920,00	880,00	98,00	8,00
SYMPHYTUM (Boraginaceae)										
	SO 720	officinale , Comfrey, 80 cm, violet or cream-colored, V-VII, Z4-8	Ⓚ Ⓣ Ⓢ Ⓚ	30	9	2560,00	320,00	42,00	5,60	3,80
TAGETES (Asteraceae, <i>Compositae</i>)										
	TO 014	 lucida , Sweet Mace, Mexican Tarragon, Yauhtli, 40 cm, yellow-orange flower umbels, lanceolate foliage, perennial in mild locations, VII-IX, Z8-10	Ⓚ Ⓣ Ⓚ	2	15	—	576,00	72,00	9,20	4,60
	TO 015	patula/erecta Mix , French Marigold, 40 cm, yellow-orange, for the biological disinfection of soil, amount needed 2-3gr/m², VII-X, Z8-10, ☉	Ⓚ Ⓚ	25	15	128,00	26,00	7,20	2,40	2,40
TANACETUM (Asteraceae, <i>Compositae</i>)										
	TO 290	 balsamita , Costmary, 60 cm, white, grey-green aromatic foliage, VII-VIII, Z5-8	Ⓚ Ⓣ Ⓢ Ⓚ	1	15	—	360,00	48,00	7,40	2,80
	CO 384	 cinerariifolium ,  , Dalmatian Pellitory, 50 cm, semispheric-shaped, bright white, good for cutting, stems 40 cm, V-VII, Z6-10	Ⓚ Ⓢ Ⓚ	3	15	—	336,00	42,00	5,60	2,80
	CO 474	 parthenium , Feverfew, 90 cm, white, well branched, perennial but often used biennial, VI-VIII, Z5-8	Ⓢ Ⓚ	1	15	892,00	126,00	22,00	3,60	2,40
	CO 482	vulgare [Gold Sticks] , Tansy, 100 cm, golden, VII-IX, Z3-8	Ⓚ Ⓢ Ⓚ	2	15	588,00	98,00	18,00	3,20	2,00
TARAXACUM (Asteraceae, <i>Compositae</i>)										
	TO 008	officinale , Dandelion (Pu-Gong-Ying), 30 cm, yellow, V-X, Z3-9, TCM plant	Ⓚ Ⓢ Ⓚ	2	16	248,00	40,00	7,20	2,00	2,00
TEUCRIUM (Lamiaceae, <i>Labiatae</i>)										
NEW!	TO 038	 polium , Felty Germander, 15 cm, white to yellowish, variable, VII-VIII, Z6-9	Ⓚ Ⓣ Ⓢ Ⓚ	3	9	—	480,00	60,00	7,60	2,80
THYMUS (Lamiaceae, <i>Labiatae</i>)										
	TO 120	 fragrantissimus , Orange Thyme, 25 cm, pink, aromatic foliage, variable, VI-VII, Z6-9	Ⓚ Ⓣ Ⓢ Ⓚ	1	15	—	—	72,00	12,00	3,20
NEW!	TO 126	mastichina , Mastic Thyme, Spanish Wood Marjoram, 30 cm, white, grey-green aromatic foliage, V-VIII, Z6-9	Ⓢ Ⓚ	1	16	—	—	96,00	12,00	4,20
	TO 130	pulegioides , Greater Wild Thyme, Field Thyme, 25 cm, mauve, VII-X, Z4-8	Ⓚ Ⓢ Ⓚ	1	15	—	192,00	24,00	4,00	2,00
	TO 134	serpyllum hort. , Shepherd's Thyme, 15 cm, purple-violet, V-IX, Z4-8	Ⓚ Ⓣ Ⓢ Ⓚ	1	15	—	280,00	36,00	6,00	3,40
	TO 144	vulgaris 'French Summer' , French Thyme, 30 cm, pinkish-white, grey narrow leaves, VI-IX, Z7-10	Ⓚ Ⓢ Ⓚ	1	15	960,00	160,00	28,00	4,80	2,40
	TO 142	vulgaris 'German Winter' , Common Thyme, 20 cm, white-pink, VI-IX, Z5-9	Ⓚ Ⓢ Ⓚ	1	15	672,00	96,00	16,00	2,80	2,00
	TO 146	zygis , Spanish Thyme, 30 cm, white, pubescent aromatic foliage, evergreen, VI-VIII, Z6-9	Ⓚ Ⓢ Ⓚ	0,5	16	—	—	164,00	22,00	4,80
TRIGONELLA (Papilionaceae, <i>Leguminosae</i>)										
	TO 221	caerulea , Sweet Trifol, 40 cm, blue, VI-VII, Z5-11, ☉	Ⓚ Ⓢ Ⓚ	10	16	148,00	36,00	12,00	4,00	2,60
	TO 223	foenum-graecum , Fenugreek, Greek Clover (Hu-Lu-Ba), 50 cm, yellowish-white with violet, trifoliate foliage, VI-VII, Z5-11, TCM plant, ☉	Ⓚ Ⓣ Ⓢ Ⓚ	40	15	48,00	12,00	8,00	2,00	2,00
TROPAEOLUM (Tropeaeolaceae)										
	TO 263	majus 'Mix' (NASTURTIUM) , Indian Cress, 40 cm, yellow, orange and red flowers, creeping, perennial but often grown annual, VII-X, Z7-10	Ⓚ Ⓢ Ⓚ	300	15	198,00	32,00	5,40	2,00	3,80
TUSSILAGO (Asteraceae)										
	TO 320	 farfara , Coltsfoot (Kuan-Dong-Hua), 30 cm, yellow, hairy leaves, III-IV, Z4-9, TCM plant	Ⓚ Ⓣ Ⓢ Ⓚ	0,5	15	—	256,00	42,00	7,20	2,40
URTICA (Urticaceae)										
	UO 020	dioica , Stinging Nettle, 120 cm, green, serrated foliage, VII-X, Z2-9,	pure seed Ⓚ Ⓣ Ⓚ	0,5	15	248,00	40,00	7,00	2,00	2,00

		Gram to get 1000 plants	N° of the sowing direction	Prices in EURO net per:				
				from 1000 g	from 100 g	from 10 g	from 1 g	Portion
VACCINIUM (Ericaceae)								
VO 004	 corymbosum , American Blueberry, 140 cm, white bellflowers, bushy habit, large blue berries, variable, V-VII, Z3-9, pure seed ® ① ② ③	2	9	—	272,00	48,00	8,40	3,80
VO 008	myrtillus , Blueberry, 30 cm, light-green shoots, black-blue berries, IV-VI, Z3-8, pure seed ® ① ② ③	1	1	—	576,00	72,00	9,00	2,00
VO 012	vitis-idaea , Mountain Cranberry, 15 cm, white to pink, evergreen groundcover, for semi-shade or sun with sufficient moisture, V-VI, Z2-7, pure seed ® ② ③	1	8	—	576,00	72,00	9,00	2,00
VALERIANA (Valerianaceae)								
VO 024	officinalis , Common Valerian, 100 cm, white to pale pink, V-IX, Z3-9 ® ① ② ③	10	16	—	192,00	24,00	3,00	2,00
VO 026	 officinalis 'BLBP 19' , Valerian, 80 cm, pinkish white umbels, pinnatifid foliage, high content of essential oil, valeric acid and extract, very high root yield, semi-coarse root structure, VI-VIII, Z3-9 ® ① ② ③	5	16	—	384,00	48,00	6,20	4,50
VERBASCUM (Scrophulariaceae)								
VO 050	 bombyciferum [Polar Summer, Silver Lining] , Silver Mullein, 160 cm, light yellow, silver-woolly leaves, nice woolly seed heads, VII-VIII, Z5-8. ® ① ②	1	15	—	—	192,00	24,00	3,80
VO 060	densiflorum (thapsiforme) , Large-flowered Mullein, 100 cm, lemon yellow with dark center, VII-VIII, Z4-7, ☉ ® ① ② ③	1	15	—	128,00	22,00	3,80	2,00
VO 074	nigrum, wild form , 120 cm, yellow, VI-IX, Z4-8, ☉ ® ① ②	0,5	20	—	—	36,00	6,00	2,00
VO 093	thapsus , Aaron's Rod, Great Mullein, 180 cm, yellow, VI-IX, Z3-6, ☉ ® ① ② ③	1	15	760,00	128,00	22,00	3,80	2,00
VERBENA (Verbenaceae)								
VO 100	 bonariensis [Buenos Aires, Finesse, Purple Top] , ^(AGM) Purpletop Vervain, 140 cm, bright violet-blue, good for cutting, moderately winter hardy, VII-X, Z7-10 ® ① ② ③	1	8	1480,00	252,00	42,00	6,00	2,00
VO 104	hastata , Blue Vervain, 120 cm, mostly blue, also pink and white, VI-IX, Z3-8, ® ① ② ③	2	8	—	268,00	36,00	4,80	2,00
VO 102	officinalis , Common Vervain (Ma-Bian-Cao), 60 cm, pale lilac, VI-IX, Z3-8, TCM plant ® ① ② ③	1	8	—	252,00	42,00	6,00	2,00
VERONICA (Scrophulariaceae)								
VO 154	officinalis , Common Speedwell, 15 cm, light blue, V-VI, Z3-8 ① ②	0,5	9	—	280,00	42,00	6,20	2,00
VICIA (Fabaceae)								
VO 182	 cracca , Bird Vetch, Tufted Vetch, 80 cm, blue violet, slightly climbing, variable, VI-VIII, Z4-9 ® ① ②	50	9	960,00	180,00	28,00	4,40	4,40
VIOLA (Violaceae)								
VO 274	tricolor , Wild Pansy, 30 cm, purple-yellow-white colour variants, bushy growth, mostly short-lived, IV-IX, Z3-9 ® ① ② ③	2	15	—	384,00	48,00	6,20	2,00
VITEX (Verbenaceae)								
VO 250	 agnus-castus , Monk's Pepper, 100 cm, bright blue, IX-X, Z6-10 ® ②	25	20	192,00	32,00	8,00	2,00	2,00



SCUTELLARIA baicalensis 'BLBP 02'



TAGETES lucida



TANACETUM balsamita



TANACETUM cinerariifolium



TANACETUM parthenium



TUSSILAGO farfara



VERBENA bonariensis



VITEX agnus-castus

1. Kaltkeimer werden auch heute noch, nicht ganz zutreffend, Frostkeimer genannt.

Die Aussaat muß während der ersten 2–4 Wochen **warm** (ca. +18 bis +22°C) und gut feucht gehalten werden. Danach ist sie für etwa 4–6 Wochen einer kalten Temperatur zwischen –4 und +4°C auszusetzen. Lediglich bei den meisten Ranunkelgewächsen sind Temperaturen um –5°C von Vorteil.

Sollten die hier genannten Temperaturen während der Kühlperiode über- oder unterschritten werden, schadet dies nicht, jedoch muß die Kühlperiode dann entsprechend verlängert werden, da der Aufbauprozeß der keimauslösenden, hormonartigen Säure während dieser Zeit sich verlangsamt hatte oder still stand.

Kann man die Aussaaten in der Kühlperiode mit Schnee bedecken, ist das von Vorteil. Die Temperatur darunter hält sich meistens in dem günstigen Bereich von –4 bis 0°C, es bleibt feucht, und der schmelzende Schnee „frißt“ an der Samenschale, macht diese poröser, was beim Ausschleiben des Keimes von Vorteil ist. Nach dieser Kühlperiode dürfen keinesfalls sofort hohe Temperaturen angewandt werden, vielmehr liegt dann der günstigste Temperaturbereich zwischen +5 und +12°C, auch dann, wenn bereits eine Keimung zu beobachten ist! Also ist der richtige Platz für diese Aussaaten, auch im März/April/Mai noch, das Freiland, der kalte Kasten oder ein Kalthaus.

2. Die Mehrzahl der Ranunkel-Gewächse benötigt tiefere Temperaturen in der Kühlperiode, ca. –5°C, sonst wie in 1.) beschrieben verfahren. Der Grund liegt wahrscheinlich darin, daß der Gefrierpunkt dieser Samen bei ca. –7°C liegt, bei den meisten anderen Samen aber bei –5°C.
3. Diese Arten bringen meist ein ausgezeichnetes Keimergebnis, wenn sie bald nach der Ernte ausgesät werden, obwohl bei vielen dieser Arten die Keimung selbst dann erst im Frühjahr, nach Wintereinwirkung, erfolgt. Deshalb diese Samen rechtzeitig bestellen.
4. Hier handelt es sich um sehr feine Samen, die man für eine gleichmäßige Aussaat eventuell mit Talkum oder feinstem Sand mischen sollte. Nicht mit Erde übersieben, nur andrücken. Bewässerung von unten oder mit feinem Zerstäuber, damit die Samen nicht weggeschwemmt werden.
5. Nicht immer führt das unter 1.) beschriebene Verfahren zu einem vollen Erfolg. Manche Arten benötigen nach der Kühlperiode noch zusätzlich eine längere Zeit bis zur Keimung. Saatgefäße daher nicht zu früh wegwerfen. Manche Samen liegen dann noch ein ganzes Jahr.
6. Diese Samen liegen sehr lange bis zur Keimung, 1 Jahr und mehr. Aus Platzgründen, und auch um das Austrocknen zu verhindern, wird dieser Samen „stratifiziert“. Das bedeutet: Einschichten der Samen in feuchten Sand. Abwechselnd eine Schicht gut feuchten Sand, eine dünne Schicht Samen usw. Die Stratifikierkisten setzt man an schattiger Stelle den Witterungseinflüssen (besonders dem Winterwetter) aus und schützt durch feines Drahtgeflecht vor Mäusen und Vögeln. Für größere Saatgutmengen haben sich in Anzuchtbaumschulen betonierte Stratifikierkästen bewährt. Im Frühjahr sollte öfters kontrolliert werden, ob die Keimung bereits beginnt. Dann sofort mit dem Sand, der ständig feucht gehalten wurde, auf das vorbereitete Saatbeet ausbringen.
7. Dieser Samen sollte so dick abgedeckt werden, wie der Durchmesser des Samenkorns ist. Bei Tagestemperaturen um +20°C stets für gleichmäßige Feuchtigkeit sorgen, für Cyclamen ist +18°C jedoch besser. Nach erfolgter Keimung hell und mäßig warm aufstellen.
8. Es handelt sich hier um Staudensamen, der sehr ungleichmäßig keimt auf eine lange Keimperiode verteilt. Hier sind auch besonders Einwirkungen von niedrigen Temperaturen unter +5°C sehr von Vorteil. Saatgefäße nicht zu früh vernichten. Besonders auf gleichmäßige Feuchtigkeit achten und keiner direkten Sonnenbestrahlung aussetzen. Für Astroemeria empfehlen wir, die Aussaat 21 Tage bei ca. +30°C aufzustellen. Danach 21 Tage bei +5°C, anschließend ca. +21°C.
9. Keimt je nach Art und Herkunft schnell. Wenn jedoch nach 3–4 Wochen die Keimung nicht erfolgt, muß diese Herkunft einer Kühlperiode von 2–4 Wochen ausgesetzt werden. Für die im Himalaya beheimateten Meconopsis ist die Kühlperiode unerlässlich. Sie müssen auch nach erfolgter Keimung noch einige Wochen kühl, unter ca. +12°C, gehalten werden.
10. Diesen größeren, hartschaligen Samen hilft eine leichte, mechanische Beschädigung der Samenschale zum schnelleren Aufquellen. Eine Methode ist es, die Samen zwischen trockenem, scharfen Sand zu reiben oder mit Schmirgelpapier. Man kann ihn auch einige Stunden in „Weichmacher“ (Polyäthylenglycol 6000), wie er bei der Plastikherstellung verwendet wird, einweichen.
11. Opuntien keimen im 2. Jahr nach der Ernte besser und gleichmäßiger. Frischer Samen liegt daher oft ein Jahr in der Erde bis zur Keimung.
12. Keine Kühlperiode erforderlich; trotzdem liegt dieser Samen meist mehrere Monate bis zur völligen Keimung.
13. Diese großen Samen 2–3 Tage in Wasser vorquellen, mit „Weichmacher“ aber höchstens 1 Tag. Danach an der Seite des Keimkegels vom Samen eine hauchdünne Scheibe abschneiden oder abziehen, so daß der Keimling fast frei liegt. Samen mit Schnittstelle nach oben auf feuchtes Aussaatsubstrat (z.B. Vermiculite) aufsetzen. Glashaube oder Glasscheibe dicht abschließend in reichlichem Abstand vom Samen darüber setzen. Die entstehende Luftspannung bei Temperaturen von ca. +22°C fördert die Keimung.
14. Eine Wärmeperiode nach der Aussaat von ca. +25 bis +30°C über etwa 4–5 Wochen, wobei feucht gehalten wird, hebt die Keimhemmung auf. Es zerfällt der im Samen vorhandene, keimhemmende Stoff. Danach die Aussaat sehr kühl stellen, +2°C! Die bei dieser kühlen Temperatur beginnende Keimung zieht sich über ca. 80 Tage hin. Während dieser Zeit dunkel halten (Kühlraum). Danach Temperatur langsam erhöhen und Licht geben.
15. Schnell keimende Saat. Gleichmäßige Feuchtigkeit (nicht naß!) und Temperatur um etwa +20°C. Die Samen nur sehr dünn, ganz feine Saat gar nicht abdecken, aber andrücken. Nach erfolgter Keimung kühler stellen.
16. Wie 15.), jedoch erfolgt hier die Keimung nicht so schnell und auch nicht immer so sehr gleichmäßig, aber doch meist problemlos.
17. Wasserpflanzen in wasserdichten Plastikschaalen o. ä. in einer nahrhaften Schlammerte aussäen. Das Wasser darf bis zu 1 cm über der Aussaaterde stehen. Bei guter Wärme (ca. +22°C) aufstellen.
18. Aussaattechnik wie 17.). Die Saatschalen aber nur ca. 2–4 Wochen warm stehen lassen, danach ca. 4–6 Wochen kalt stellen um 0°C herum. Das Wasser darf ruhig gefrieren. Anschließend die Temperatur nur sehr langsam ansteigen lassen.
19. Diese Aussaat benötigt zur Aufhebung der Keimruhe (Zersetzung des keimhemmenden Stoffes) mindestens 6 Wochen gute Bodenwärme, ca. +22°C und gleichmäßige Feuchtigkeit. Anschließend 6–8 Wochen kalt stellen, ca. –4 bis +4°C. Meist beginnt die Keimung schon bei +4°C. Die Wärme nur sehr langsam anheben, nicht über +10°C, bis die Keimung abgeschlossen ist. Wenn die warme oder die kalte Periode nicht ausgereicht haben, dann keimen diese Samen erst im darauffolgenden Jahr. Sie benötigen dann noch mal eine warme Periode (Sommer) und eine kalte Periode (Winter). Bekanntes Beispiel: Cimicifuga, Helleborus.
20. Diese Aussaaten sind sehr wärmebedürftig, +22°C oder auch höher, um ein gutes Keimergebnis zu erzielen. Mäßige, aber gleichmäßige Feuchtigkeit ist sehr wichtig. Gunnera allerdings möchte es besonders feucht (nicht naß) und besonders warm, ca. +24 bis +30°C.

Allgemeines:

Stellen Sie niemals Aussaaten in eine Gefriertruhe, Gefrierschrank oder Gefrierraum mit Temperaturen unter –5°C!! Die Ausdehnung des gefrierenden Wassers in den Samenzellen geht in solchem Fall zu plötzlich vor sich. Ein Druckausgleich durch die Zellmembranen hindurch kann so schnell nicht erfolgen. Die Zellwände werden zerrissen und der Samen ist tot. In der Natur kommen solche sekundenschnellen Temperaturstürze in den Minusbereich nicht vor. Auf einen normalen, langsamen Druckanstieg sind die Zellmembranen jedoch eingerichtet und sorgen mit ihrer Durchlässigkeit für einen osmotischen Druckausgleich.

Bei etlichen Kaltkeimern kommt es immer wieder vor, daß ein Teil der Samen schon während der Warmperiode keimt. Diese Sämlinge sollte man unbedingt heraus pikieren bevor die Aussaat kalt gestellt wird. Diese Erscheinung hat mehrere Ursachen. Unter anderem dient sie in der Natur zur Arterhaltung in Regionen, wo eine Winterwitterung nicht in jedem Falle gewährleistet ist. Setzt jedoch eine entsprechende Winterwitterung ein, überleben diese vorzeitig erschienenen Sämlinge nicht. Die Art wird dann durch die nach Kälteeinwirkung keimenden Samen erhalten.

Für eine künstliche Kühlperiode bietet sich daher der Kühlschrank oder Kühlraum mit Temperaturen um 0°C an. Weil Aussaatkisten im Kühlschrank meist nicht unterzubringen wären, kann man so verfahren, daß man die Samen, mit etwas feuchtem Sand vermischt, in Plastikbeutel füllt und nach der erforderlichen Wärmeperiode so im Kühlschrank unterbringt. Es ist aber darauf zu achten, daß der Sand in den Beuteln feucht bleibt. Nach Ablauf der erforderlichen Kühlperiode wird dann der Samen mit dem Sand in das Aussaatgefäß ausgebracht und bei der dann erforderlichen Temperatur aufgestellt.

Nachdruck dieser Aussaatanleitungen, auch auszugsweise, ist nicht gestattet. Die Anleitungen sind nur für die Aussaat der von uns bezogenen Samen gedacht; eine anderweitige Verwendung, z.B. für Unterrichtszwecke, darf nur mit unserem Einverständnis erfolgen.

1. Cold-germinators are still referred to as frost-germinators, although this isn't quite correct. The sowing must be kept **warm** (about +18 to +22°C) [about 64 to 72°F] and moist for the first 2–4 weeks. After this period the sowing must be kept at a cold temperature (between –4 and +4°C) [between 25 and 39°F] for another 4–6 weeks. Colder temperatures of –5°C [23°F] are only advantageous for most species of the Ranunculus family. It is not so important if the temperature is higher or lower during the cooling period, but the cooling period has to be prolonged because the synthesis of the germination inducer, hormon-like acid, slows down or comes to a standstill.

It is beneficial to cover the sowing with snow during the cooling-period. The temperature below it usually keeps in the optimum range of –4 to 0°C [25 to 32°F]. The sowing is kept moist, and the melting snow helps to destroy the shell, which is advantageous for the germinating seedling. After this cooling-period the sowing may not be immediately exposed to high temperatures. The most effective temperatures are between +5 to +12°C [41 to 54°F], even if germination has started. The best location for this sowing, even in March, April and May, is the open field, the cold frame or a cold greenhouse.
2. Most species of the Ranunculus-family need lower temperatures during the cooling-period – about –5°C [23°F]. In other respects follow the directions in 1. above. The reason is probably the freezing point of these seeds, which is at –7°C [19°F], while most other seeds freeze at –5°C [23°F].
3. These species usually show excellent results if sown soon after the harvest, although most of them only germinate in spring after the effect of winter. For best results please order seeds in time.
4. These are very tiny seeds which should be mixed with finest sand or talcum for an even sowing. Do not cover with compost, only press them in gently. Irrigate from the bottom or with a hand-sprayer, so that the seeds will not be washed away.
5. The directions of 1. do not always show the best results. After the cooling-period some species need a longer time until germination starts. As some seeds do not germinate until the next year, it is important not to throw away the seed boxes too early.
6. These seeds germinate extremely late, sometimes it takes one year or longer before germination starts. To best utilize space and avoid drying out, this seed must be "stratified" (placed in layers of wet sand – alternately a thin layer of seeds and a layer of well-moistened sand, etc.). The stratification boxes have to be kept in the shade to benefit from weather effects – especially winter. A fine wire mesh will protect them from mice and birds. Nurseries have found that concrete boxes are useful for large amounts of seed. In spring frequently check to see if germination has begun. When germination has started, the seeds must be sown immediately in the prepared bed with the moist sand.
7. These seeds must be covered with a layer seed kernel diameter. Keep daytime temperatures at approximately +20°C [68°F], and keep the moisture constant, for Cyclamen, however, +18°C [64°F] is recommended. The seeds must be kept in the light and moderately warm after germination.
8. These perennial seeds germinate very irregularly over a long period. Lower temperatures of less than +5°C [41°F] are very effective. Seed trays should not be discarded prematurely. Constant moisture must be maintained. Do not leave in direct sunlight. For Alstroemeria we recommend to keep sowing for 3 weeks at approximately +30°C [86°F], then 3 weeks at +5°C [41°F], then at +21°C [70°F].
9. These seeds germinate rapidly depending on species and origin. If germination does not occur after 3–4 weeks a cooling period of 2–4 weeks is recommended.
10. For these bigger hard-shelled seeds, mechanical damaging of the shell is helpful for quicker swelling. One method is to grind the seed in dry sharp sand. They can also be treated for several hours in a "softener" (Polyethylenglycol 6000), which is used for the production of plastic material.
11. Opuntias germinate more effectively the second year after harvest. Fresh seed often lies in the ground for about a year before germination.
12. No cooling-period is necessary, but these seeds usually need several months until complete germination.
13. Allow these large seeds to swell up in water for 2–3 days. If a "softener" is used only soak for a maximum of one day. After that cut off a thin slice of the seed close to the germcone so that the embryo is almost bare. Place seed with the cut facing up in a moist seed compost e. g. Vermiculite. This must be covered tightly with glass, a good interval from the seeds. The rising air pressure, at temperatures of about +22°C [72°F], accelerates the germination.
14. A warm period of +25 to +30°C [77 to 86°F] and moist conditions after sowing for about 4–5 weeks neutralizes the germination inhibition. The phytohormones which inhibit germination will then break down. At this point the sowing needs very cool conditions, approximately +2°C [36°F]. Initial germination lasts for about 80 days under these conditions. During this period keep in dark cold storage chamber. Then temperature and lighting must be increased gradually.
15. Rapidly germinating, keep seed in constant moisture (not wet) with temperatures of about +20°C [68°F]. Seeds must be covered thinly. Do not cover very small seeds, but tightly press into the earth. Keep in cooler conditions after germination occurs.
16. See 15 with the exception of germination being slower and more irregular. This poses no problems.
17. Waterplants must be sown in waterproof plastic trays or similar containers containing a nutritious muddy compost. Fill water up to 1 cm over the top of the compost. Keep the trays at warm temperatures of approximately +22°C [72°F].
18. See 17. Allow the seed trays to be left for only 2–4 weeks at warm temperatures, then keep at 0°C [32°F] for another 4–6 weeks. It does not matter if the water freezes. After this treatment allow temperature to rise gradually.
19. To stop the germination inhibition give seeds a warm compost (about +22°C) [about 72°F] with constant humidity for at least 6 weeks. Then keep cold (–4 to +4°C) [25 to 39°F] for 6–8 weeks. Usually, the germination starts at +4°C [39°F]. Raise temperatures gradually up to +10°C [50°F] until germination is completed. If the warm or cold period was not long enough the seeds will not germinate until the following year. They will then need another warm period (summer) and a cold period (winter). Well-known examples: Cimicifuga and Helleborus.
20. To obtain best germination results, seeds need temperatures of +22°C [72°F] or more. Moderate, but constant humidity is very important. Gunnera, however, prefers very moist (not wet) and warm (+24 to +30°C) [75 to 86°F] conditions.

General remarks:

Never put the sowing into a freezer with temperatures below –5°C [23°F]! The expansion of the freezing water in the seed cells is too rapid. The cell membrane can not tolerate the pressure compensation. The cell wall would be destroyed and the seed would die. Rapid drops in temperature below the freezing point do not occur naturally. A normal, slow rise in pressure can be tolerated by the cell membrane, its permeability taking care of an osmotic equalization of pressure.

It is possible to use a refrigerator with a temperature of about 0°C [32°F] to create an artificial cooling period. Since it is usually not possible to put the seed trays into a refrigerator, you can mix the seed with moist sand. It should be put into a plastic bag and placed into the refrigerator after the required warm period. The sand must be kept constantly moist. After the required cooling period sow the sand with the seed into seed trays and leave at required temperatures.

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- Kallgroende arter benämns ännu – om än inte helt korrekt – "frostgroende". Sådden skall under de första 2–4 veckorna hållas relativt **varmt** (ca. +18 till +22°C) och väl fuktigt. Därefter skall temperaturen sänkas till mellan –4°C och +4°C under 4–6 veckor. Endast för de flesta ranunkelväxter (Ranunculaceae) är en temperatur på minus 5°C en fördel.
Skulle de här nämnda temperaturgränserna under kylperioden över- eller underskridas skadar detta i och för sig inte. Dock måste kylperioden i sådana fall förlängas emedan utvecklingen av de gröningsbefrämjande, hormonartade syrorna försenas eller avstannar.
Kan man täcka sådden med snö under kylperioden är detta en fördel. Under snön bibehålls temperaturen på en gynnsam nivå omkring –4°C till 0°C. Fuktigheten bevaras och smältvattnet medverkar till att göra fröskalet poröst vilket underlättar groddens framspridning.
Efter kylperioden skall temperaturen inte höjas för häftigt – bäst är +5 till +12°C även sedan groningen börjat. Alltså är den bästa miljön för "kallgroende" arter ett kallhus eller en kallbänk (kast) o dyl lokaler eller också på friland.
- Flertalet ranunkelväxter behöver en något lägre temperatur (ca. –5°C) under kylperioden som angivits ovan. Orsaken är förmodligen att deras fryspunkt ligger vid –7°C medan den hos de flesta andra kallgroende växtslag ligger vid –5°C.
- Dessa växtslag gror vanligen utmärkt om de sås strax efter skörden (färskt frö). Dock sker groningen hos många arter först på våren efter vinterns påverkan. Beställ dessa växtslag i god tid!
- Här rör det sig om mycket småkorniga fröer som man – för att kunna så jämnt och glest – eventuellt kan blanda med talk eller fin sand. Skall ej täckas med jord utan endast tryckas fast mot ytan. Bevattnas underifrån eller med mycket fin dusch så att fröet inte flyter omkring.
- Det under punkt 1. beskrivna förfaringssättet ger inte alltid önskat resultat. Många arter behöver efter kylperioden ytterligare lång tid på sig innan groningen kommer igång. Bevara därför sådden väl fuktig och skyddad mot ohyra under ett helt år – innan hoppet är ute.
- Dessa frön ligger ofta mycket länge innan groningen börjar – ett år eller mer. För att spara plats och förhindra uttorkning ska dessa frön "stratifieras". Detta innebär: skikta fröet med väl fuktig – våt ren sand. Först ett lager sand, därefter ett tunt lager frö, nytt lager sand o s v. Stratifieringslådan skall stå skuggigt och svalt utsatt för vädrets växlingar – särskilt fuktigt och svalt vinterväder är gynnsamt. Skyddas mot möss och fåglar med finmaskigt nät. Under större förhållanden i plantskolor använder man särskilt för ändamålet byggda "stratifieringskistor". På våren kontrolleras ofta (varje vecka) om groningen börjat. Så snart groningen kan konstateras skall fröet med den ständigt fuktiga sanden sås ut på väl förberedd såbädd.
- Dessa fröslag skall täckas lika tjockt som kornens diameter. Dagtemperatur +20°C och absolut god jämn fuktighet. För Cyclamen är dock något lägre temperatur +18°C bäst. Så snart groningen börjar ställs sådden ljus och i lämplig temperatur alltefter växtslag.
- Det rör sig här om utsäde av perenna växter som ofta gror mycket oregelbundet under lång tid. Här har också en tids lägre temperatur +5°C en gynnsam inverkan. Kassera inte sådden för tidigt – den måste få sin chans. Absolut jämn, god fuktighet är en förutsättning för en lyckad groning. Skydda sådden mot direkt solstrålning. Vi rekommenderar för Alstroemeria att hålla sådden ca. 3 veckor omkring +30°C, därefter 3 veckor +5°C och sedan omkring +21°C.
- Gror vanligen ganska snabbt – alltefter art och härkomst. Om dock groningen inte kommit igång efter 3–4 veckor måste sådden utsättas för en kylperiod under 15–30 dygn. För alla Meconopsis som hör hemma i Himalaya är kylperioden nödvändig. Även efter groningen skall de stå svalt, under +12°C, för några veckor.
- Dessa stora, hårdskaliga frön kan hjälpas till snabbare groning genom en lätt mekanisk åverkan på skalet. En metod kan vara att nöta fröet med grovkornigt skarpt grus. Ett annat sätt är att rispa fröet med sandpapper. Man kan också prova att blötlägga fröet några timmar i en „mjukgörare" som plastindustrin använder (polyetylenglykol 6000).
- Opuntia gror bättre och mer regelbundet ett par år efter skörden. Nytt frö ligger ofta ett år i jorden innan det kan börja gro.
- Kylperiod är icke nödvändig trots att dessa fröer kan ligga flera månader i sådbädden innan groningen kommer igång.
- Dessa stora frön kan få svälla i vatten under 2–3 dygn. Dock högst ett dygn i de fall „mjukgörare" används. Därefter kan man med ett försiktigt och mycket tunt snitt skära eller dra av fröskalet kring embryot så att själva grodden mer eller mindre friläggs. Fröet läggs med „snittsidan" uppåt på väl fuktigt substrat (t ex Vermiculite). Täck närmast lufttätt med glaskupa eller glasskiva på tillräcklig höjd över fröet. En lufttemperatur på +22 till +24°C gynnar gröningsprocessen.
- En värmeperiod med ca. +25 till 30°C under 4–5 veckor efter sådden häver fröets vilstadium och gynnar groningen. Detta eliminerar de gröningshämmande substanserna som finns i fröet. Därefter skall sådden ställas mycket svalt på endast +2°C! Den gröningsprocess som börjar vid denna låga temperatur drar ofta ut över ca. 80 dagar. Under hela kyltiden skall sådden hållas mörkt (kylrum). Därefter ges så småningom (langsamt) högre temperatur och ljus.
- Snabbt groende frön. Sådden ska hållas jämnt och väl fuktig – men inte blöt – och temperaturen vid ca. +20°C. Fröet täcks mycket tunt – riktigt små frön täcks inte alls men trycks försiktigt ner i jordytan. När groningen börjat placeras sådden något svalare och ljus.
- Behandlas som under punkt 15. men groningen sker långsammare och ofta oregelbundet men i huvudsak problemlöst.
- Vattenväxter sås i vattentätt kärl i näringsrik slamjord. Vattnet skall stå ca. 1 cm över jorden. Håll god groningstemperatur (ca. +22 till +24°C).
- Såteknik som under punkt 17. Dock ska sådden stå varmt endast under 2–4 veckor för att därefter hållas kallt vid ca. 0°C under 4–6 veckor. Vattnet får gärna frysa till. Slutligen får temperaturen stiga långsamt.
- Dessa frön behöver minst 6 veckor god jordvärme (+22°C) och jämn god fuktighet för att gröningsvilan skall hävas. Därefter 6–8 veckor låg temperatur, ca. –4 till +4°C. I de flesta fall begynner groningen redan vid +4°C. Temperaturen får endast långsamt höjas – dock ej över +10°C – tills dess gröningsprocessen är avslutad. Om värmen eller kylperioden inte fungerat tillfredsställande eller under tillräckligt lång tid kommer fröet att gro först nästa år. Fröet behöver då ännu en värmeperiod (sommar) och en kylperiod (vinter) för att gro. Kända exempel är: Cimicifuga och Helleborus.
- Dessa fröslag är mycket värmeberoende, +22°C eller ännu högre, för att gro väl. Måttlig men jämn fuktighet i såbädden är mycket viktig! Gunnera måste t ex ha god fuktighet (dock ej blött) och särskilt hög groningstemperatur, ca. +24 till +30°C för att spira väl.

Allmänna råd:

Ställ aldrig sådden i frybox eller frysrums med lägre temperatur än –5°C!! Utvidgningen av det frysande vattnet i växtcellerna sker vid starkare frost alltför häftigt. Tryckutjämnningen genom cellens membran (cellväggarna) kan då inte ske tillräckligt snabbt. Cellväggarna kommer att sprängas och fröet dö. I naturen förekommer normalt inte så plötsliga temperatursänkningar under fryspunkten. Växtcellen är anpassad till en normalt tämlingen långsam tryckstegring och sörjer med sin semipermeabilitet (halvgenomtränglighet) för en osmotisk tryckutjämnning.

För en konstlad kylperiod lämpar sig därför ett kylskåp eller kylrum med en temperatur runt 0°C bäst. Om sålådor o. i. inte går att ställa in i kylskåpet kan man i stället blanda fröet med ren, fin och väl fuktig sand (dock ej havssand som innehåller salter). Lagg frösandblandningen i stark plastpåse och utsätt den för lämplig värmeperiod enligt anvisningen och därefter placeras påsen i kylskåpet under angiven tid. Se till att sanden hela tiden förblir fuktig!

Efter den erforderliga kylbehandlingen sås blandningen ut på det sätt som anges under respektive punkt och under de temperaturförhållanden som där rekommenderas.

Avtryck och kopiering, ävensom utdrag av denna anvisning för sådd, är förbjudet. Anvisningen är endast avsedd för utsäde som levererats av oss. Annan användning – för t ex undervisning e. l. – får endast komma ifråga med vår tillåtelse.

1. Les semences froides sont souvent appelées à tort semences hivernales.

La semence doit être maintenue **au chaud** pendant les 2–4 premières semaines à environ +18 à +22°C, en milieu humide. Elle est ensuite exposée pendant 4–6 semaines à une température de l'ordre de –4 à +4°C. Pour la famille des Ranunculaceae seulement, cette température devrait atteindre –5°C.

Si pendant la période froide les températures indiquées devaient différer en plus ou en moins, cela ne présente aucun inconvénient, mais la période froide doit être prolongée en conséquence étant donné que le processus de germination lié à la production de certains acides de type hormonal c'est ralenti voire même a été stoppé.

Il est très avantageux de pouvoir recouvrir l'ensemencement de neige pendant la période hivernale. La température qui y règne se situe dans la zone favorable de –4 à 0°C, le milieu demeure humide et la neige fondante "attaque" l'écorce de la semence, la rend poreuse, ce qui offre un avantage certain lorsque le germe veut sortir. Cette période froide passée, il faut absolument éviter de recourir immédiatement à des températures élevées, la zone thermique préférable se situant entre +5 et +12°C, même lorsque les signes de première germination se sont déjà manifestés. Le meilleur endroit pour de tels ensemencements est donc le terrain en plein air, le caisson froid ou la serre froide pendant les mois de mars, avril ou mai.

2. La plupart des plantes appartenant à la famille des renonculacées demandent des températures inférieures pendant la période froide, de l'ordre de –5°C, pour le reste, ce qui a été dit en 1. demeure valable. La raison en est que la température de congélation se situe pour cette semence aux alentours de –7°C, et de –5°C pour la plupart des autres.

3. Cette variété présente généralement une germination excellente si elle est ensemencée peu de temps après la récolte, même si pour grand nombre de ces espèces la germination ne commence que vers le printemps, après que les effets de l'hiver se soient fait sentir. Cela explique pourquoi il faut commander sa semence à temps.

4. Il s'agit ici d'une semence très fine que l'on devrait mélanger à du talc ou à du sable très fin pour obtenir un ensemencement bien régulier. Ne pas recouvrir de terre criblée, mais seulement aplanir en pressant. Arroser de la base ou au moyen d'un pulvérisateur fin pour éviter que les semences soient emportées.

5. Le procédé décrit en 1 ne conduit pas toujours à des résultats satisfaisants. La période froide passée, certaines espèces demandent encore un certain temps pour germer. C'est la raison pour laquelle il ne faut pas jeter les conteneurs trop tôt. Il se peut que certaines graines y soient encore pendant toute une année.

6. Ces semences demandent une longue période avant la germination, quelquefois une année et même plus. Pour des raisons d'encombrement et aussi pour éviter que les graines se dessèchent, cette semence est "stratifiée". Cela signifie que les graines sont réparties en couche sur des lits de sable humide. Changeant les couches de sable humide et les couches fines de graines. Les caisses sont ensuite entreposées dans un endroit ombragé exposé au froid de l'hiver (notamment), bien protégées contre les oiseaux et les souris par un grillage fin. Pour des quantités de semence plus grandes, des caisses à stratification en béton se sont avérées très pratiques. Il convient de vérifier au printemps si la germination a déjà commencé. En pareil cas, transplanter immédiatement avec le sable, qui a été maintenu humide en permanence, à l'endroit prévu à cet effet.

7. Cette semence devrait être recouverte d'une couche correspondant à la grosseur de la graine. Pour des températures diurnes de l'ordre de +20°C, veiller à ce que l'humidité soit maintenue constante. Une température de +18°C est toutefois préférable pour les cyclamens. Entreposer dans un endroit ensoleillé et moyennement chaud dès que la germination a commencé.

8. Il s'agit ici d'une semence de plante vivace, dont la germination est très irrégulière et répartie sur une longue période. A noter ici que les effets d'une basse température de l'ordre de +5°C sont très avantageux. Ne pas détruire trop tôt les conteneurs de semence. Bien veiller à une humidité régulière et ne pas exposer à l'ensoleillement direct. Pour la semence d'Alstroemeria nous recommandons pour 21 jours environ +30°C. Elle est ensuite exposée pendant 3 semaines à une température de +5°C. Entreposer ensuite à température de +21°C.

9. Germe très vite selon l'espèce et la provenance. Si cette germination n'a toutefois pas commencé dans un intervalle de 3–4 semaines, il est utile d'exposer l'ensemencement à une période froide de 2–4 semaines. La période froide est indispensable pour le Meconopsis domicilié en Himalaya. – Après la germination il faut faire froid ces semences. Une température moins que +12°C est préférable.

10. Il est recommandé de casser par voie mécanique l'écorce très dure de cette semence pour faciliter un gonflement plus rapide. L'une des méthodes consiste à frotter la graine avec du sable sec aux arêtes tranchantes. Il est aussi possible de ramollir la semence en la plongeant dans un "émollient" (polyéthylène glycolique 6000), utilisé dans la fabrication des matières plastiques.

11. Les opuntia germent mieux et plus régulièrement au cours de la 2ème année suivant la récolte. Les semences fraîches restent de ce fait pendant une année dans la terre avant de germer.

12. Aucune période de froid n'est nécessaire. Cela n'empêche pas que cette graine reste en terre pendant plusieurs mois avant de germer.

13. Laisser ces grosses graines se regorger en les plongeant dans l'eau pendant 2–3 jours, ou dans un "émollient" pendant une journée. Faire ensuite une entaille sur le cône de germination et enlever une très petite capsule de l'écorce, de telle sorte que le germe soit presque à nu. Placer la semence l'entaille vers le haut sur un substrat humide (vermiculite par exemple). Placer ensuite une cloche ou une vitre fermant bien à un écart suffisant des graines. La tension d'air qui résulte à une température de +22°C environ facilite la germination.

14. Une période chaude de +25 à +30°C suivant l'ensemencement répartie sur une durée de 4 à 5 semaines, en milieu humide, permet de lever les obstacles à la germination. La substance bloquant la germination se désagrège dans la graine. Entreposer ensuite la semence dans un lieu très frais de l'ordre de +2°C. A cette basse température, la germination se prolonge sur une période de 80 jours. Maintenir à l'obscurité pendant toute cette période (frigorifère ou chambre froide). Faire monter ensuite lentement la température en augmentant la lumière.

15. Semence à germination rapide Humidité régulière (éviter de submerger dans l'eau) et température avoisinant +20°C. Ensemencer très claire sans recouvrir les fines graines, tout en les aplanissant par pression toutefois. Mettre au frais dès que commence la germination.

16. Procéder comme en 15 sachant toutefois que la germination ici n'est pas aussi rapide et moins régulière, mais ne présentant toutefois aucun problème pratique.

17. Ensemencer les plantes aquatiques sur une boue nourrissante dans des cuvettes si possible étanches ou dans des récipients similaires. L'eau doit submerger la semence d'environ 1 cm. Entreposer à une température agréable (+22°C).

18. Technique d'ensemencement comme en 17. Ne laisser les cuvettes de semence seulement que 2–4 semaines à la chaleur, entreposer ensuite pendant 6–8 semaines au froid à une température de l'ordre de 0°C. Il n'y a pas d'inconvénient à ce que l'eau gèle. Ne laisser ensuite remonter la température que très lentement.

19. La semence exige une interruption du calme de germination (destruction de la substance bloquant la germination) se produisant dans un sol bien chaud pendant au moins 6 semaines à une température de +22°C à humidité constante. Ensuite 6 à 8 semaines au froid à –4 à +4°C. La germination commence le plus souvent dès +4°C. N'augmenter la température que très lentement et ne pas dépasser +10°C en fin de germination. Si la période de froid ou de chaleur n'a pas été suffisante, ces graines ne germent alors qu'au cours de l'année qui suit. Il leur faut alors encore une période chaude (été) et une période froide (hiver). Exemples les plus connus: Cimicifuga, Helleborus.

20. Ces semences demandent beaucoup de chaleur, +22°C et plus pour garantir une bonne germination. Une température modérée mais régulière est très importante. Gunnera en fait exige davantage d'humidité (ne pas submerger) et beaucoup de chaleur, +24 à +30°C.

Généralités:

Ne jamais entreposer vos semences dans un congélateur, une armoire ou une chambre de surgélation ayant une température inférieure à –5°C. La dilatation de l'eau à l'intérieur de la graine est dans ce cas beaucoup trop rapide. La compensation de pression au travers de la membrane cellulaire ne peut plus avoir lieu suffisamment vite. Cette membrane se déchire et la graine est morte. De tels chocs à une température inférieure à zéro durant quelques secondes n'ont jamais lieu dans la nature. Si la pression augmente régulièrement et doucement, la membrane cellulaire est prévue pour absorber la contrainte qui en résulte par voie osmotique de compensation de la pression.

Si vous désirez obtenir une période de froid artificiel, il est recommandé de recourir à un frigidaire ou une chambre froide à une température proche de 0°C. Etant donné que les caisses de semence sont difficiles à entreposer dans un frigidaire, il est possible de mélanger la graine à une sable humide, de les placer dans des sacs en matière plastique et, après la période chaude nécessaire, de les mettre dans le frigidaire. Il faut toutefois veiller à ce que le sable dans les sacs reste bien humide. Après la période de froid prévue, le sable et la semence sont vidés dans des récipients destinés à l'ensemencement et mis à la température nécessaire.

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1. Koudekiemers worden soms, ten onrechte, nog vorstkiemers genoemd. De eerste 2–4 weken na het zaaien dient het uitzaaisel **warm** (ca. +18–22°C) en vochtig gehouden te worden. Pas na deze periode het zaaisel voor ongeveer 4–6 weken kouder zetten bij een temperatuurtussen –4 en +4°C. Bij vertegenwoordigers van de Ranonkelfamilie verdient het de aanbeveling een temperatuur van –5°C aan te houden.
Overschrijding van de genoemde temperaturen tijdens de koudeperiode is niet schadelijk, maar maakt wel een verlengde koudeperiode noodzakelijk. De opbouw van het noodzakelijke kiemingshormoon kan dan vertraagd of onderbroken zijn.
Een sneeuwdek tijdens de koudeperiode heeft voordelen. De temperatuur onder een sneeuwdek blijkt vaak de optimale te zijn, namelijk tussen de –4 en 0°C. Ook blijft het zaaisel vochtig terwijl de smeltende sneeuw de zaadhuid poreus maakt, wat van voordeel is op de kieming van het zaad. Kort na de koudeperiode dient het zaaisel niet te worden blootgesteld aan hoge temperaturen. De optimale temperatuur ligt dan tussen de +5 en +12°C, dit geldt ook als de kieming al begonnen is. Voor dergelijke zaaisels is de ideale plek (ook nog in maart, april of mei) buiten in de volle grond, in een bak of koude kas.
2. Het merendeel van de ranonkelachtigen verlangt een wat lagere temperatuur, ca. –5°C. De verdere aanwijzingen zijn gelijk aan die als bovenstaand onder 1.) zijn genoemd. De oorzaak is mogelijk gelegen in het feit dat het vriespunt bij deze zaden op –7°C ligt, terwijl deze bij de meeste andere zaden –5°C bedraagt.
3. Deze zaden hebben het beste kiemresultaat wanneer ze direct na de oogst worden gezaaid. In een aantal gevallen zal de kieming toch pas in het voorjaar geschieden na blootstelling aan winterinvloeden. Deze zaden bij voorkeur tijdig bestellen.
4. Dit is zeer fijn zaad. Voor een gelijkmatige verdeling bij het zaaien kan het worden gemengd met fijn zand of talkpoeder. De zaden niet bedekken, alleen licht aandrukken is voldoende. Bevochtigen door opzuigiging van onder af of van boven met een fijne nevel.
5. De onder 1.) beschreven procedure leidt niet altijd tot een grote opkomst. In sommige gevallen is een langere inwerkingstijd op de zaden nodig. Het zaaisel daarom niet wegdoen maar bewaren tot volgend jaar.
6. Deze zaden hebben veel tijd nodig voor ontkieming, minimaal één en soms meerdere jaren. Ter besparing van ruimte en om uitdroging te voorkomen wordt dit zaad gestratificeerd, d.w.z. afwisselend lagen vochtig zand en een dunne laag zaden. Aldus opgeslagen (op een beschaduwde plaats) worden de zaden blootgesteld aan de (winter-) weersinvloeden. Fijn gaas beschermt de zaden tegen vraat van muizen en vogels. In kwekerijen worden wel betonnen bakken voor dit doel gebruikt. Constante oplettenheid in het voorjaar is nodig om te zien of de kieming al is begonnen. Als dit het geval is moet direct (met het vochtige zand) worden gezaaid in een voorbereid zaai-bed.
7. Dit zaad moet worden afgedekt met een laagje zaaigrond dat net zo dik is als het zaad zelf. Overdag een temperatuur aanhouden van +20°C bij een constante vochtigheid. In het geval van Cyclamen wordt +18°C aanbevolen. Na ontkieming licht en matig warm houden.
8. Dit vaste plantenzaad kiemt onregelmatig gedurende een langere kiemperiode. Ook hier geldt dat temperaturen onder +5°C een gunstige invloed op de kieming hebben. Het zaaisel daarom niet te vroeg wegdoen. Zorg voor een gelijkmatige vochtigheid en voorkom een directe instraling van zonlicht. Voor Alstroemeria adviseren wij het zaaisel gedurende 21 dagen bij ca. +30°C te houden, vervolgens gedurende 21 dagen bij +5°C en dan bij +21°C.
9. Gewoonlijk kiemt dit zaad snel, afhankelijk van soort en herkomst. Als er na 3–4 weken nog geen kieming is dan kan het zaaisel een koudeperiode worden gegeven van 2–4 weken. (Voor Meconopsis, afkomstig uit de Himalaya, is de koudeperiode verplicht en ook na opkomst moet het zaaisel nog een aantal weken koel, bij ca. +12°C, worden gehouden.)
10. Bij deze grotere zaden met een harde zaadhuid helpt een mechanische beschadiging van de zaadhuid waardoor het zaad sneller zwelt. Een methode is het zaad in droog, scherp zand of tussen schuurpapier te wrijven. Er wordt ook wel gebruik gemaakt van een zgn. weekmaker (Polyethyleenglycol 6000) uit de kunststofindustrie.
11. Opuntia kiemt beter en gelijkmatiger in het tweede jaar na de oogst. Vers gezaaid zaad ligt daarom vaak een jaar over voordat kieming volgt.
12. Een koudeperiode is hier niet noodzakelijk. Toch liggen deze zaden vaak een aantal maanden voordat ze massaal kiemen.
13. Deze grote zaden 2 tot 3 dagen laten weken in water. Bij gebruikmaking van een weekmaker slechts één dag. Vervolgens aan de zijkant een dun reepje van de zaadhuid afsnijden of afpellen waardoor de kiem komt bloot te liggen. Het zaad dan, met de snijkant naar boven, in een vochtig zaaimeidium bijv. Vermiculiet leggen en luchtdicht afsluiten onder een kunststof kap of een glasplaat. Zorg voor voldoende ruimte tussen kap en zaad. De hoge luchtvochtigheid in combinatie met een temperatuur van ca. +22°C bevordert een snelle kieming.
14. Een vochtige warme periode van 4–5 weken bij ca. +25–30°C verbreekt de kiemrust. De in het zaad aanwezige kiemremmer wordt dan afgebroken. Vervolgens het zaaisel koud, bij +2°C!, plaatsen. Bij deze lage temperatuur strekt de kieming zich over 80 dagen uit. Gedurende deze tijd het zaaisel donker houden (koelkast). Daarna de temperatuur en het lichtniveau geleidelijk aan verhogen.
15. Dit zaad kiemt snel. Gelijkmatig vochtig houden (niet nat) bij ca. +20°C. Het zaad slechts zeer dun afdekken, fijn zaad echter niet afdekken, maar licht aandrukken. Na de kieming koeler houden.
16. Als bij 15.). Kieming geschiedt meestal probleemloos maar mogelijk minder snel en wellicht ook minder gelijkmatig.
17. Waterplanten worden onder water gezaaid in plastic bakken gevuld met voedselrijk slib. Een laagje water van ca 1 cm boven het slib is voldoende. Tamelijke warm (+22°C) houden.
18. Zaaiprocedure als bij 17.). De zaai bakken slechts 2–4 weken warm houden en vervolgens 4–6 weken koude geven bij 0°C. Bevriezen mag. Daarna de temperatuur geleidelijk laten oplopen.
19. Deze zaaisels hebben voor het verbreken van de kiemrust (de afbraak van de kiemremmers) minstens 6 weken bodemwarmte van +22°C nodig en een gelijkmatige vochtigheid. Vervolgens een koudeperiode geven van ca –4 tot +4°C. Vaak begint de kieming al bij +4°C. De temperatuur dan geleidelijk laten oplopen tot niet meer dan +10°C tot de kieming volledig is. Het kan zijn dat de koude periode of de warme periode niet voldoende lang zijn geweest. In dat geval zal de ontkieming pas het jaar erop plaatsvinden na de invloeden van de zomer (warmte) en winter (koude). Bekende voorbeelden hiervan zijn Cimicifuga en Helleborus.
20. Deze zaaisels verlangen hoge temperaturen (+22°C of meer) voor een goed kiemingsresultaat. Een lichte maar gelijkmatige vochtigheid is zeer belangrijk. Gunnera verlangt een hoge vochtigheid (maar niet nat) en hoge temperaturen, +24–30°C.

Algemeen:

Plaats nooit zaaisels in vrieskasten e.d. met temperaturen onder –5°C!! De uitzetting van het bevroren celvocht gaat te snel, de celmembranen kunnen het drukverschil niet opvangen waardoor de celwanden scheuren en het zaad dood gaat. Zulke snelle temperatuurdalingen komen in de natuur niet voor. Op een geleidelijke drukverhoging kunnen de celmembranen reageren door osmose via de halfdoorlatende celwand waardoor de drukverschillen worden opgeheven.

Bij vele koudekiemers kan het gebeuren dat ze al kiemen tijdens de warme periode. Deze kiemplantjes dienen eruit te worden gehaald voordat het zaaisel koud wordt gezet. Dit verschijnsel heeft verschillende redenen. Het draagt onder anderen bij tot het voortbestaan van de soort in gebieden met wisselvallige winters. Mocht een strenge winter voorkomen dan bevriezen de vroegtijdig opgekomen kiemplanten. De soort wordt dan in stand gehouden door de zaden die pas kiemen na inwerking van de winterkou.

Voor een kunstmatige koudeperiode is de koelkast of koelruimte met een temperatuur rond 0°C geschikt. Zaaikisten zijn vaak nogal moeilijk te plaatsen in de koelkast. Daarom kan ook worden volstaan met het zaad te vermengen met vochtig zand en zo in plastic zakjes, na de noodzakelijke warme periode, in de koelkast op te slaan. Er moet altijd op worden gelet dat de inhoud van de zakjes niet uitdroogt. Na afloop van de benodigde koudeperiode kan dan het zaad, samen met het zand, worden uitgezaaid bij de geadviseerde temperatuur.

Nadruk van deze zaai-aanwijzingen, of delen hieruit, is niet toegestaan. De aanwijzingen zijn alleen bedoeld voor de door ons aangeboden zaden. Andere toepassingen, bijv. voor onderwijsdoeleinden, zijn alleen toegestaan na onze schriftelijke toestemming.

1. 低温発芽植物は今日でもなお、適切とはいえない表現”霜発芽植物”で呼ばれています。蒔かれた種子は最初の2～4週間は、温かく（約18～22℃）十分な湿り気をもつ状態に置いて下さい。その後4～6週間に渡り-4℃から+4℃の冷温に置きます。多くのキンポウゲ科の植物に限り、-5℃前後の気温が有利条件になります。
冷却期間中上記の気温を下回ったり、上回ったりすることが仮にあっても、決して害はありませんが、その場合は、冷却期間をそれに応じて延長する必要があります。これは、その期間中、発芽を促す、ホルモンに似た酸の増成過程の進行速度が落ちたり、あるいは停止したりするためです。
蒔いた種子を冷却期間中雪でおおうことが出来れば、有利条件となります。雪の下では、温度はほとんどの場合-4℃から0℃の好ましい範囲にあり、湿り気が保たれます。さらに、雪は解けかかると種子の外皮を”腐食”して浸透性を与え、芽が伸び出るのに有利になります。いかなる場合も、冷却期間後すぐに高温下に置くことはしないで下さい。それとは反対に、好ましい温度域は+5℃から12℃の間であり、発芽が観察された後もこの温度を保つ必要があります。従って、これらの蒔かれた種子にとっての適所は、3月4月5月でも、屋外、冷却箱あるいは冷室です。
2. 複数のキンポウゲ科の植物は、冷却期間中これよりさらに低温の、約-5℃を必要とします。その他の手順は、1)に記述した通りです。これは恐らく、これらの種子の氷点が約-7℃であるのに対して、その他多数の種子では-5℃であることに原因すると考えられます。
3. これらの種属は、収穫後間もなく蒔かれると、実際の発芽は多くの場合、冬の影響を受けた後春になってから始めて起こりますが、その発芽成績はほとんどの場合、非常に優秀です。従って、これらの種子は適時に蒔いて下さい。
4. ここで扱うのは非常に細かい種子で、種蒔きに当たっては、場合によっては滑石粉又は最も細かい種類の砂を混ぜて、一様に蒔く必要があります。種子の上には土をかけず、押しつけるだけにします。水やりは下から、あるいは目の細かい霧吹き器を使って行い、種子を流さないようにします。
5. 1)に記述した手順は、あらゆる場合に首尾上々に運ぶわけではなく、いくつかの種属では、冷却期間後発芽するまでにさらに長期間を要します。ですから、種子を蒔いた容器を早々と捨てることがないようにして下さい。種子によっては冷却期間後さらに1年間も土中に眠っていることがあります。
6. これらの種子は発芽まで非常に長期間、1年あるいはそれ以上、土中に眠ります。場所を節約するため、又干からびてしまうのを防ぐために、これらの種子を”成層”します。即ち、種子を湿った砂の層の間に埋めるのです。十分に湿った砂の層と薄い種子の層を交互に重ねます。成層箱は日陰に置いて、天候の影響（特に冬の天候）に曝し、細かい金網でネズミや鳥から守ります。多量の種子を蒔く場合はコンクリート製の成層箱が良いことが育樹園で確認されています。春になったら、発芽がすでに始まっているかどうかを頻繁に点検すべきです。その場合は、常時湿った状態に保たれていた砂とともに種子を、あらかじめ準備しておいた苗床に即刻出さなければなりません。
7. これらの種子は、種子粒の直径と同じ厚みの土でおおって下さい。日中の気温20℃前後で、常時均一に湿り気を保つ様配慮します。シクラメンには、しかし18℃が望まれます。発芽が起こった後は、明るく、適度に温かい場所に置きます。
8. ここで扱うのは非常に不均一に発芽し、長い発芽期間を持つことを特徴とする多年生草木の種子です。ここでもやはり、5℃未満の低温の影響が非常に有利です、種蒔き容器を早々と廃棄しないで下さい。特に一様に湿り気を与えることを配慮し、決して直射日光にさらさないこと。ユリズイセンは、蒔いた種子を2日間約30℃の状態に置いた後、2日間5℃に、引き続き21℃に置くことをお勧めします。
9. 種と出所によって早く発芽します。しかし3～4週間たっても発芽が起こらない場合は、その出所の種子には2～4週間の冷却期を定める必要があります。ヒマラヤ原産のメコノプシスには冷却期が不可欠です。発芽が成った後も、2～3週間は約12℃未満の低温を保つようにするべきです。
10. これらの大きめで硬い外皮を持つ種子には、種子の外皮にかかる傷をつけてやると、種子粒が水をふくんでふくらむのを早めることが出来ます。種子を乾燥した鋭利な砂の間で擦ったり、紙ヤスリを使って擦ることも一方法です。あるいは、プラスチック製造に応用されているように、”柔弱剤”（ポリエチレングリコール6000）の中に2、3時間浸けて柔らかくすることも出来ます。
11. オブンチエン（サボテン）は収穫後2年目の方が首尾よく、一様に発芽します。そのため、新しい種子はしばしば、発芽まで1年間土中に眠ります。
12. 冷却期間を置く必要はありませんがこれらの種子は、多くの場合、完全に発芽するまで数カ月を要します。

13. これらの大粒の種子は、2～3日水に浸けて柔らかくします、柔弱剤を使用する場合は、1日が限度です。その後、円錐状の種子の側面からごく薄い小片を切り取るかはぎ取るかして、芽がほぼ完全に劉き出しになるようにします。切り取った箇所を上を向くように、種子を湿った種蒔き用培養基（例えばフェミクルテ）の上に置きます。ガラス円盤又はガラス板を、種子から十分な間隔をもたせて置き、きっちりと密閉します。気温約22℃のもとで発生する空気圧が発芽を促進します。
14. 種蒔き後、約25℃～30℃の温暖期間を約4～5週間置き、この間湿り気を保つと、発芽抑制が解除されます。種子の中にある発芽を抑制する物質が壊れるためです。その後蒔かれた種子を+2℃の冷温に保ちます。この冷温下で始まった発芽の進行は長引き、約80日以上に渡ります。この期間中は暗い場所（冷室）に置くこと。その後は、温度をゆっくりと上げ、光に当てます。
15. 蒔くと早く発芽する種子です。一様な湿り気（濡れた状態でなく）と約+20℃前後の気温。これらの種子にはごく薄く土をかぶせ、丁寧に蒔いた場合は土をかぶせず押しつけるだけにすること。発芽後は温度を下げて下さい。
16. 15)と同じですが、発芽はそう早くは進行せず、非常に一様にも起こりません。それでも発芽には、ほとんどの場合、問題はありません。
17. 水生植物は、水もれしないプラスチック容器又はそれに類似した容器に養分の多い泥土を入れ、その中に種蒔きします。水は、種を蒔いた土の上1cmまで入れて構いません。十分な暖かさ（約22℃）のもとに置いて下さい。
18. 種蒔きの手法は17)と同じですが、種蒔き容器は約2～4週間だけ温かい場所に、その後約4～6週間、0℃前後の冷温下に置きます。水は凍っても構いません。引き続き温度を非常にゆっくりと上げて行きます。
19. この種子は蒔かれると、発芽制止の解除（発芽を抑制している物質の分解）のために少なくとも6週間約22℃の土中温度と、一様な湿り気を必要とします。その後引き続いて6～8週間、約-4℃から+4℃の冷温下に置きます。多くの場合、+4℃で既に発芽が始まります。温度の上昇はごくゆっくりと行い、発芽が終了するまで10℃を越すことがないようにします。冷却期間又は温暖期間が十分に取られなかった場合は、これらの種子は次の年になってから発芽します。その場合は、もう一度温かい期間（夏）と冷たい期間（冬）を各々一週づつ必要とします。周知の例：キミキフーガ、クリスマスローズ
20. これらの種子は蒔かれると、優良な発芽成績を達成するためには、22℃又はそれ以上の暖かさが必要とします。ほどほどの、しかし一様な湿り気が非常に大切です。グンネーラは但し、特に十分の湿り気（濡れた状態でなく）と約24℃から30℃の特別の暖かさを好みます。

総括のご案内

蒔かれた種子は決して、温度-5℃未満の冷凍庫、冷凍ケース、冷凍室内には置かないで下さい。そうした場合は、種子の細胞内で氷結する水分の膨張の速度が早すぎるのです。細胞膜を介する圧力の均衡作用はそう迅速には進行しないため、細胞壁が裂け、種子は死にます。自然界においては、そのようなマイナス域での瞬時の温度急降下は起こりません。細胞膜は、通常の、ゆっくりと進行する圧力上昇に対しては十分対応出来るよう創られており、又、透過性を有するため、浸透性の圧力均衡を保ちます。

いくつかの冷温発芽植物においては、種子が部分的に温暖期に既に発芽してしまうことが再三再四起こります。これらの実生は、蒔いた種子を冷温下に置く前に移植されなければなりません。この現象にはいくつかの原因があります。そのひとつに、冬の天候が必ず訪れるとは限らない地域において、種の保存の役割を果たす、ということがあります。相応する冬の天候が訪れれば、この早期に発芽した実生は生き延びることは出来なくなります。種属はその場合、冷温の影響を受けた後に発芽する種子により保存されます。

人工的な冷却期にはそのようなわけで、0℃前後の温度の冷蔵庫又は冷室がむいています。種蒔き箱は多くの場合、冷蔵庫に収容出来ないで、種子を少し湿った砂に混ぜてプラスチック袋に詰め、必要な温暖期間後、冷蔵庫に収容することも出来ます。その時は、袋内の砂が湿り気を保つよう注意する必要があります。必要とされる冷却期間の終了後は、種子を砂と共に種蒔き箱に出し、必要な温度下に置きます。

種蒔き案内書の複写は、例え抜粋であっても許可されていません。案内書は、当社の栽培した種子の種蒔きをのみ対象として作製されています。教育等、その他の目的での使用は、当社の了解なしに行わないで下さい。

1. Le piante che germogliano a freddo vengono ancora oggi annoverate tra le piante germoglianti a temperature glaciali, il che non è esatto.
Le prime 2–4 settimane i sementi devono trovarsi in ambiente **caldo** (circa +18–22°C) e ben inumidito. Solo dopo tale periodo i sementi vengono esposti per circa 4–6 settimane alle basse temperature tra i –4 ed i +4°C. Solo per i ranuncoli risulta benefica una temperatura attorno ai –5°C.
Se nel periodo freddo la temperatura dovesse superare il limite superiore o quello inferiore sopra indicati, non si registrano danni, bisogna però prolungare adeguatamente il periodo freddo, poichè in questo intervallo di tempo si rallenta o si blocca il processo di formazione di quell'acido di tipo ormonale che avvia la fase germogliativa.
Risulta vantaggioso coprire con neve i sementi nel periodo freddo. Sotto la neve la temperatura si mantiene in genere a livelli propizi tra –4 e 0°C, l'ambiente rimane umido, e la neve sciogliendosi „corrode“ il guscio del seme rendendolo poroso, il che favorisce la fuoriuscita dei germogli. – Passato questo periodo freddo la temperatura non deve salire subito in alto; l'ambito più favorevole è quello tra i +5 ed i +12°C, anche se si vedono spuntare già i primi germogli! Il giusto posto per questi sementi – ciò vale anche fino a marzo/aprile/maggio – è all'aperto, nel cassettone freddo o nella serra fredda.
2. Nel periodo freddo la maggior parte delle piante del genere dei ranuncoli abbisogna di basse temperature sui –5°C, altrimenti si proceda come descritto al punto 1. La ragione di ciò sta probabilmente nel fatto che il punto di congelamento per questi semi è circa –7°C, mentre per la maggioranza degli altri semi è sui –5°C.
3. I semi di questo genere danno di solito ottimi risultati di germogliamento se si seminano immediatamente dopo il raccolto, seppure la maggioranza di tali speci germoglia poi lo stesso appena in primavera, dopo il trattamento a freddo subito d'inverno. Ordinate perciò tempestivamente questi semi!
4. Qui si tratta di semi molto fini, che consigliamo di mescolare eventualmente con talco o con sabbia finissima, al fine di effettuare una semina uniforme. Non coprire con terra, basta pressare i semi sul terreno. Si irriga dal di sotto oppure impiegando un nebulizzatore, affinché l'acqua non trascini via i semi.
5. Il trattamento descritto al punto 1. non dà sempre risultati del tutto soddisfacenti. Dopo il periodo freddo alcune speci abbisognano ancora di un lungo periodo prima di germogliare. Dunque non gettar via troppo presto i contenitori coi semi. Alcuni semi rimangono in terra ancora un anno intero.
6. Questi semi rimangono in giacenza per molto tempo, 1 anno e più, prima di germogliare. Per ragioni di economia di spazio e anche per evitare un essiccamento, questo seme viene „stratificato“. Ciò significa: i semi vengono messi in sabbia umida a strati. Ad uno strato ben inumidito di sabbia segue un sottile strato di semi e così via di seguito. I cassetteggi di stratificazione vengono collocati all'ombra, esposti alle intemperie (specialmente all'influsso del tempo invernale) con una fine rete metallica di protezione contro topi ed uccelli. Per forti quantitativi di semi nei vivai di piante sono stati applicati con successo cassetteggi di stratificazione in cemento armato. In primavera bisogna controllare spesso se incomincia già il germogliamento. In caso positivo si prendono i semi assieme alla sabbia, tenuta tutto il tempo ben umida, per portarli sull'aiola già predisposta ad accoglierli.
7. Questo seme deve venir coperto con uno strato di spessore pari al diametro del granello. Ad una temperatura sui +20°C durante il giorno si abbia cura di provvedere all'apporto di umidità sufficiente. Per i ciclamini è preferibile una temperatura di +18°C. A germogliamento avvenuto si provvede ad un'esposizione a luce chiara con temperature tiepide.
8. Qui si tratta di semi di piante perenni, il cui germogliamento molto irregolare si estende per un lungo periodo di tempo. Risulta particolarmente vantaggioso sottoporre i sementi all'influsso di basse temperature sotto i +5°C. Non si distruggano troppo presto i contenitori di semi. Si faccia soprattutto attenzione che l'umidità sia distribuita uniformemente e si eviti l'esposizione diretta ai raggi solari.
9. A seconda della specie e dell'origine questi semi germogliano più o meno presto. Se dopo 3–4 settimane non dovessero ancora germogliare, si sottopongono per 2–4 settimane all'influenza di basse temperature. Per la meconopsis, originaria dall'Himalaia, è assolutamente necessario sottoporre i semi ad un periodo di un'infuenza di basse temperature. Anche a germogliamento già avvenuto si mantenga ancora per alcune settimane una temperatura sotto i circa +12°C.
10. Il gonfiamento di questi semi abbastanza grandi e con guscio robusto viene accelerato se si lacera leggermente per via meccanica il loro guscio. Uno dei metodi applicati è quello di sfregare i semi con sabbia aguzza o con carta vetrata. I semi si possono anche rendere molli, immergendoli per alcune ore in „ammorbidenti“ (glicole di polietilene 6000), come quelli impiegati nella produzione di materie plastiche.
11. Le opunzie gemogliano meglio e più uniformemente nel 2° anno dopo il raccolto. Il seme fresco rimane pertanto spesso nella terra per un anno prima di germogliare.
12. Non è necessario un periodo di basse temperature; comunque questo seme impiega spesso molti mesi fino al pieno germogliamento.
13. Questi grandi semi si lasciano pregonfiare in acqua per 2 o 3 giorni; se si aggiunge un „ammorbidente“ il periodo di gonfiamento non deve superare 1 giorno. Sulla parte dove si trova il cono del germoglio si taglia via o si pela una sottilissima fettina, di modo che il germoglio rimanga quasi scoperto. Il seme si pone con il punto di taglio all'insù su un substrato di seminatura (p.es. verniculite). Si copre la superficie con una campana o lastra di vetro a buona chiusura; si mantenga una sufficiente distanza dal vetro al seme. La tensione d'aria in tal modo generata ad una temperatura di circa +22°C favorisce il germogliamento.
14. Lo sblocco dell'inibizione di germogliamento si raggiunge sottoponendo i semi all'influenza di un periodo di circa 4–5 settimane di temperature tra i circa +25–30°C in ambiente umido. In tal modo si decompone la sostanza che – presente nel seme – inibisce il germogliamento. Dopo questo trattamento si lasciano i sementi a temperature basse, +2°C! Il germogliamento che inizia in un ambiente così freddo si protrae per un periodo di circa 80 giorni. In tale periodo tenere i sementi all'oscuro (in cella frigorifera). In seguito si aumenta gradualmente la temperatura, esponendo i sementi alla luce.
15. Semi a germogliamento celere. Umidità uniforme (non bagnare!) e temperatura sui +20°C. Appena coprire i semi appena; quelli fini non si coprono, bensì si pressano sul terreno. Mettere al freddo a germogliamento avvenuto.
16. Si procede come al punto 15., solo che in questo caso il germogliamento non avviene celermente; i semi non germogliano neppure uniformemente, però il germogliamento avviene senza problemi.
17. Per la semina delle piante acquatiche si impiega una propizia terra fangosa in contenitori di plastica a tenuta d'acqua o in altri recipienti delle stesse caratteristiche. L'acqua può arrivare ad un livello di 1 cm sopra la terra che copre i semi. Mettere in ambiente a temperatura piuttosto alta (circa +22°C).
18. La tecnica di semina è quella indicata al punto 17. I recipienti coi sementi si lasciano al caldo soltanto per circa 2–4 settimane, dopo di che si mettono per circa 4–6 settimane in ambiente freddo a circa 0°C. Si può lasciar gelare l'acqua. Dopo il periodo predetto si fa salire lentamente la temperatura.
19. Per porre fine al periodo di stasi germogliativa (decomposizione della sostanza che inibisce il germogliamento), questi semi abbisognano di almeno 6 settimane di terreno ben riscaldato, a circa +22°C, e di umidità uniformemente distribuita. Dopo di ciò si espone per 6–8 settimane al freddo, con circa –4 fino a +4°C. Di solito il germogliamento inizia già a +4°C. Aumentare la temperatura molto lentamente, senza superare i +10°C, fino al completamento del germogliamento. Se il periodo caldo o quello freddo erano troppo brevi, questi semi germogliano appena l'anno seguente. Abbisognano poi ancora di un periodo caldo (l'estate) e di un periodo freddo (l'inverno). Un noto esempio: cimicifuga, helleborus.
20. I semi hanno bisogno di molto calore, cioè +22°C ed anche di più, per raggiungere un germogliamento soddisfacente. E' molto importante la presenza di un'umidità ridotta, che sia però in forma. Per quanto concerne la gunnera, questa ha bisogno di molta umidità (ma non di bagnato) e di temperature alte dai circa +24 ai 30°C.

Note generali:

Non porre mai i semi in un congelatore o in una cella di congelamento con temperature sotto i –5°C! La dilatazione dell'acqua che gela nelle cellule dei semi avviene a tali condizioni in modo troppo repentino. Non riesce a stabilirsi tanto presto un compenso di pressione attraverso le membrane cellulari. Le pareti delle cellule si lacerano ed il seme muore. In natura non si hanno casi di abbassamenti così repentini nell'ambito di temperature sotto lo zero. Le cellule però non vengono danneggiate, se la pressione aumenta normalmente e lentamente; allora le cellule compensano la pressione eccessiva grazie all'osmosi che avviene tramite le pareti cellulari semipermeabili.

Per periodi di freddo artificiale si impieghino perciò celle o armadi frigoriferi con temperature attorno allo 0°C. Poichè è difficile collocare contenitori di seminazione in armadi frigoriferi, si può procedere nel seguente modo: si mescolano i semi con un po' di sabbia umida, mettendo il tutto in sacchetti di plastica. Si lascia trascorrere il necessario periodo con alta temperatura prima di porre i semi così trattati in frigorifero. Si faccia però attenzione che la sabbia nei sacchetti rimanga umida. Trascorso il necessario periodo freddo, semi e sabbia vengono messi nel contenitore di seminazione che viene poi lasciato alla temperatura adatta.

E' vietato riprodurre, anche parzialmente, il testo delle sopra citate istruzioni di semina. Queste istruzioni sono applicabili solo alla semina dei semi acquistati presso di noi; un'applicazione per altri scopi, p.es. a scopo didattico, è ammissibile soltanto previo nostro benestare.

All sales are subject to the following terms and conditions accepted by all customers when placing their orders.

General Terms of Delivery

1. Every consignment should be inspected upon delivery. Complaints about any perceptible defects relating to the goods or the packaging and any weight discrepancies must be brought to the Seller's notice no later than the 5th working day and any deficient germination vigour no later than 3 weeks after receipt of the goods. Notice of any defects which are not detectable until a later date must be given without delay. In the event of any dispute the goods shall, upon prior notification to the Seller, be re-examined by the Institute of Applied Botany, Hamburg/Germany (Staatsinstitut für angewandte Botanik), whose analysis shall be recognized as decisive by both parties. The expenses shall be borne by the losing party.
2. If the Buyer has justifiably complained about perceptible defects or deficient germination vigour, the Seller shall be obligated to take back the goods, but not to deliver replacement goods, nor to grant a price discount, nor to pay compensation for damages.
3. In the case of all other defects the Seller shall be liable for damages proved in due time and not exceeding the invoiced amount for the goods in question; no further liability will be assumed. The Buyer shall waive all other statutory or private claims. The same shall apply in the event that goods other than those specified are delivered. The descriptions given in this catalogue are not to be regarded as warranted qualities.

The Seller does not accept any responsibility for the outdoor viability of the goods as this is dependent on outside influences beyond control.

Furthermore, the Seller is not liable on account of seed infestation and transmission of diseases, pests or weeds.
4. The place of performance and jurisdiction for both parties is Schwarmstedt / Lüneburg. German law is applicable.
5. Acceptance of orders for items which are not yet in stock is subject to the receipt of marketable goods.

Crop failures or non-marketability of goods releases the Seller from his obligation to deliver.

6. The Seller is entitled to withdraw from the contract or to postpone delivery if, through no fault of his own, prompt delivery is made impossible by interruptions of traffic, measures ordered by public authorities, or other events of force majeure. Furthermore, the Seller is entitled to withdraw from the contract without rendering compensation, if he is given cause to doubt the Buyer's credit standing and the Buyer fails to pay in advance or furnish security at the Seller's request.
7. Ownership of all goods supplied by the Seller will be retained by the Seller until all receivables and any balance on current account debit to the Buyer have been settled or, in the case of payment by cheque or bill of exchange, until such has been honoured.
8. The plants grown from the goods shall be deemed as security assigned to the Seller until the aforementioned time or, in the case of outdoor crops, until these have been extracted from the land. In lieu of delivery of the goods the Seller may hold them in safe custody for the creditor free of charge. The German law relating to the safeguarding of fertilizer and seed supplies shall apply *mutatis mutandis*.
9. In the event that the Buyer ceases all payments prior to paying for the goods delivered, the Seller shall have the rights specified in the Bankruptcy Act pertaining to the segregation of goods or the assignment of the right to consideration. The segregable goods shall be set off against the purchase price claim at 65% of the maximum quantity wholesale price but no higher than 65% of the price invoiced at the time of delivery. The balance of the purchase price shall remain payable.
10. Unless otherwise agreed, the above terms and conditions shall apply analogously to the delivery of other horticultural products.
11. Should any of the above terms and conditions become legally ineffective on account of cancellation, other agreements or for other reasons, the remaining provisions shall remain binding.

Specific Terms of Delivery

1. All offers/quotations are without obligation and without relation to any previous purchases. Previous prices become invalid as soon as this list is issued.
2. The prices shown in this list are net prices in EURO and, unless otherwise agreed, do not include packing and are free place of shipment, if required plus the Value Added Tax applicable on the day of delivery. The packaging is charged at the lowest possible price, but is not returnable.
3. Pricing: 0.1g to 9.9g at the 1g price; 10g to 99.9g at the 10g price; 100g to 999.9g at the 100g price; 1kg to 9.999kg at the 1kg price; prices for larger quantities are given upon inquiry.

If a price per 1000 seeds is not listed, orders in seed units will be converted from an average seedcount into gram units and charged accordingly.

Minimum order value 25 € net. Orders less than 25 € will be charged the difference.

The Seller is entitled to increase to the next largest unit any order quantities other than those listed above amounting to no more than 50 € in value. If prices are not quoted for smaller quantities, the respective higher sliding-scale price will be invoiced nonetheless.

Minimum charge per item 2 € net.
4. Shipping shall be at the Buyer's risk in accordance with clearly specified shipping instructions. Consignments will be insured at the expense of the Buyer against transport risks. Otherwise the Seller shall use his own discretion without accepting any responsibility.
5. Packets whose closure has been damaged or some of whose contents have already been used cannot be taken back. In the event that liability exceeding that outlined in section 3 of the General Terms of Delivery is obligatory by law, proof of the defects claimed – in particular non-trueness of species or variety – must be

furnished by the Buyer with the contents of a previously unopened packet sealed by the Seller or breeder.

A fee of minimum 30% of the goods value shall be charged to the Buyer's account for any return of goods attributable to the fault of the Buyer or cancellation of orders and reservations. Return of goods after 30 days is not accepted.

Seeds are perishable goods. Every order is matched to the customer's individual requirements. A right of cancellation / right of return on behalf of traders/ business is therefore excluded. A right of cancellation / right of return without grounds within 14 days after receipt of order is also excluded in reference to § 312g section 2 BGB. Jelitto Staudensamen GmbH is not obligated and on principal, not prepared to participate in dispute settlement hearings before an arbitration committee.

6. Unless otherwise agreed, all invoices shall be payable net cash upon receipt; bank interest (1,5% p.m.) and expenses will be charged for overdue payment unless other rights are asserted. No discount is granted when payment is made by credit card. If cash-on-delivery is not requested, this must be expressly indicated, new customers being requested to furnish references. COD charges shall be at the expense of the Buyer.
7. All photographic material supplied is copyright of Jelitto Staudensamen GmbH. The photographic material shall not be duplicated or passed on to third parties.

The one-off right of use is granted under the express condition that the recipient shall use the photographic material for the agreed purpose only. The photographic material may only be used under the complete name under which the material was supplied.

In the event of any breach of these conditions, Jelitto Staudensamen GmbH will claim damages of not less than 250 € per individual case.
8. Should any of the above terms and conditions become legally ineffective on account of cancellation, other agreements or for other reasons, the remaining provisions shall remain binding.