

Forcing Guide / Cut Flowers

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1. Allium

Popular name: Allium

Family: Liliacea

General

- Plant characteristics
 - Height: depending on species
 - Flower color and shape: more or less spherical umbels
 - Leaf color and shape: green, parallel-veined, linear
- Origin: Southern Europe, Central Asia and Asia Minor, western parts of North America
- Bulb type: bulb
- Hardiness: good
- Available sizes + Flower number: from 3-4 to more than 24 cm, depending on species
- Availability: July – December
- Storage: dry, at 20°C, unwrapped in forcing boxes

Cultivation of cut flowers

- Degree of difficulty: normally
- Range: the entire range
- Planting time: mid-October - mid-November
- Soil type: all soil types
- Nutrition: 5-7 kg NPK additional fertilizer (12-10-18) per 100 m²
- Planting depth: large bulbs appr. 10 cm soil over the bulb, small bulbs appr. 5 cm soil over the bulb
- Planting density: *A. giganteum*, *A. schubertii* and *A. macleanii* 10 bulbs per m², *A. stipitatum* 30 bulbs per m², *A. aflatunense* and *A. christophii* 60-100 and other species appr. 200 bulbs per m².
- Protection from frost: apply light straw cover on sandy soil
- Watering: as needed, normal
- Crop rotation: leek, onions, garlic, etc. are not suitable as preceding crop due to onion fly and white rot
- Flower production: 1 stem per bulb
- Cutting stage $\frac{1}{4}$ - $\frac{1}{2}$ of all blooms must be open
- Post-harvest treatment: place immediately in water/chlorine

Early cultivation under glass

- Degree of difficulty: normal
- Range: *Allium aflatunense*, *Allium cowanii*, *Allium sphaerocephalon*
- Bulb size: depending on species
- Cold period: 12 weeks at 2-5°C before planting out
- Planting time: December; also October - November if bulbs do not receive cold storage
- Planting density: *A. aflatunense* 64, *A. cowanii* and *A. sphaerocephalon* appr. 200 bulbs per m²
- Greenhouse climate: Ventilate at 15-16°C; ideal forcing temperature is 12-14°C
- Flowering period: beginning April - end of July

2. Anemone Coronaria

Popular name: poppy-flowered anemone

Family: Ranunculacea

Range

- Anemone de Caen cultivars (single flowering), including 'Hollandia' (red, with white base and black centre), 'Mr Fokker' (purple blue), 'Sylphide' (purple pink), 'Bride' (pure white)
- Anemone St. Brigid cultivars (double flowering), including 'Governor' (red), 'Admiral' (violet), 'Lord Lieutenant' (deep blue), 'Mount Everest' (white)
- Available: colors mixed or straight colors to allow customers to make their own color combination.

General

- Plant characteristics
 - * Height: 30-40 cm
 - * Flower color and shape: several
 - * Leaf color and shape: green
- Origin: Mediterranean
- Bulb type: tubers, annual tuber from seeds, 2-3, 3-4, over 4 cm, biennial tubers 5-6, 6-7, 7-8, over 8 cm
- Hardiness: not frost hardy
- Available sizes: from 3 cm
- Availability: year-round
- Storage: dry during winter, 10-13°C, followed by 17-20°C, normal ventilation

Cultivation of cut flowers

- Degree of difficulty: not difficult to force into flower
- Range: the entire range
- Soil type: sand, light loam sand
- Nutrition: 7 kg 7-14-28 NPK per 100 m²; if required later supplemented by a little N
- Planting depth: 3-4 cm soil over the tubers
- Protection from frost: provide cover
- Watering: keep soil adequately moist; ventilate to control Botrytis after watering
- Crop protection: spray against Botrytis
- Flower production: 4-5 blooms per corm, in cold room 5-7 blooms
- Cutting stage: buds must be properly formed and clearly colored
- Post-harvest treatment: market in water

Early cultivation under glass

- Degree of difficulty: relatively easy to normal
- Range: the entire range
- Bulb size: 5-6, 6-7 cm
- Planting time: October; for very early flowering plant as early as September
- Planting density: size 5-6 cm, 50-60 tubers per m² net
- Greenhouse climate: frost-free until mid-January at 9°C; then increase gradually to 13-15°C
- Flowering period: from mid-February - April

Field cultivation

- Degree of difficulty: cover with straw before winter
- Range: the entire range
- Corm size: annual and biennial corms
- Planting time: in December and after winter, if necessary
- Planting density: annual corms: size 3-4 cm, appr. 50 tubers per m², biennial corms: size 5-6 cm, 25-40 tubers per m²
- Flowering period: beginning of June

3. Crocosmia

Family: Iridacea

Range

- *Crocosmia crocosmiiflora* (Montbretia) small-flowered, including 'Météore' (orange), 'Red King' (red)
- *Crocosmia crocosmiiflora* (Montbretia) large-flowered, including 'Emily McKenzie' (dark red)
- *Crocosmia masonorum* (shades of orange/red)
- *Crocosmia masonorum*, 'Lucifer' (red)

General

- Plant characteristics
 - Height: 80-100 cm
 - Flower color and shape: yellow, orange, red; a number of blooms per umbel
 - Leaf color and shape: sword-shaped
- Origin: South Africa
- Bulb type: corm
- Hardiness: only if good protection is provided
- Available sizes: *Crocosmia crocosmiiflora* from 6 cm, *Crocosmia masonorum* from 8 cm
- Availability: February - May
- Storage: 2-5°C, in forcing boxes

Cultivation of cut flowers

- Degree of difficulty: normal to force into flower
- Range: *Crocosmia crocosmiiflora*
- Soil type: all soil types
- Sterilize soil before planting: sterilize soil following production of all crops in Iridacea and practice a wide rotation.
- Nutrition: 7 kg 7-14-28 NPK per 100 m² (sand), 7 kg 12-10-18 NPK per 100 m² (clay) 4 weeks after planting out
- Planting depth: 5 cm soil over the corm
- Protection from frost: for perennial cultivation 250 kg straw per 100 m²
- Watering: normal
- Flower production: 1 flower stem per corm
- Cutting stage: lower most calyx open
- Post-harvest treatment: flower conditions for herbaceous and bulbous plants

Field cultivation

- Degree of difficulty: not difficult
- Range: including *Crocosmia* 'Lucifer', 'Emily McKenzie'
- Corm size: *Crocosmia masonorum* from 8 cm; *Crocosmia crocosmiiflora* large-flowered from 6 cm.
- Planting time: March - beginning of April
- Planting density: 100 corms per m² (80 corms of the largest size)
- Crop protection: against thrips and ivy bryobia (mite)
- Flowering period: August - September

4. Dahlia

Family: Compositae

Range

- Decorative cactus dahlia*
- Peony dahlia
- Ball dahlia
- Pompon dahlia
- Cactus dahlia*
- Semi-cactus dahlia*

* Suitable for cut flowers: small-flowered cactus, decorative cactus and semi-cactus dahlia

General

Plant characteristics

Height

- Decorative d. : 40-130 cm
- Peony d. : 110-120 cm
- Ball d. : 180-100 cm
- Pompon d. : 80-100 cm
- Cactus d. : 40-120 cm
- Semi-cactus d. : 40-120 cm

Flower color and shape: all types are available in a wide range of colors.

- Decorative: flower heads set tightly with rounded petals
- Peony: like decorative dahlia with a diameter of 10-15 cm.
- Ball: ball-shaped (sometimes a little flat on the top) flower head set tightly with petals
- Pompon: rounder and smaller, with rounded petals
- Cactus: flower heads set tightly with petals shaped tube-like for one half of their length
- Semi-cactus: flower heads set tightly with partly curved petals

Leaf color and shape: depending on type

- Origin: Mexico
- Bulb type: tuberous roots
- Hardiness: not frost hardy
- Available sizes: I, II
- Availability: end of February - June
- Storage: 5-7°C, also in containers, avoid draughts

Cultivation of cut flowers

- Degree of difficulty: normal
- Range: Ball and Pompon, Peony and a number of small-flowered Cactus, Semi-cactus and Decorative
- Soil type: all soil types (pH not less than 6)
- Nutrition: 2 kg N per 100 m²
- Planting depth: 5-7 cm (over the nose of the tuber)
- Watering: depending on ground water level and weather conditions
- Crop protection: combat thrips, ivy bryobia (mite), greenfly and earwigs
- Flower production: anything from 10 to 30 flowers. More flowers if the first shoots are removed at 6-8 leaves
- Cutting stage: Peony immature, bloom half opened, other types when fully mature. Do not cut in the afternoon
- Post-harvest treatment: water and appropriate flower conditioner
- Additional measures: highly transport sensitive, depending on stem length, use coarse mesh to support the flowers (20 cm)

Early cultivation under glass

- Degree of difficulty: possible, but rarely done because of expensive cultivation

Field cultivation

- Degree of difficulty: uncomplicated
- Range: see general cultivation
- Tuber size: I and II (tubers with 2-5 eyes)
- Planting time: cuttings from mid-May, tubers from mid-April (crop emerges when there is no risk of frost)
- Planting density: 3 tuber per m²
- Crop protection: control thrips, ivy bryobia (mite), greenfly and earwigs when necessary
- Flowering period: mid-July until first frost. Pinch top out of plants to create denser crop.

5. Eremurus

Popular name: foxtail lily, desert candle

Family: Liliaceae

Range

- Eremurus Rüter hybrid
- Eremurus stenophyllus (Syn. Eremurus bungei)
- Eremurus robustus (very large as cut flower)
- Eremurus himalaicus

General

- Plant characteristics
 - Height: flower stem 120-180 cm
 - Flower color and shape: spear-shaped; white, yellow, pink, orange, salmon
 - Leaf color and shape: green, linear
- Origin: Russia, Afghanistan, Iran
- Bulb type: tuberous root; long, fleshy roots, 1-2 sprouts
- Hardiness: moderately hardy (cover with straw)
- Available sizes + Flowering density: 1 and 1-2 eyes; one flower stem per sprout
- Availability: September - December
- Storage: do not allow to dry out, 5-9°C, retail packaging: perforated bags with filling material

Cultivation of cut flowers

- Degree of difficulty: can be forced into flower normally (can be used as perennial)
- Range: Eremurus stenophyllus, Eremurus himalaicus and Eremurus Rüter hybrid
- Soil type: all freely-draining soils
- Sterilize soil: disinfect before planting. In sandy soil occasionally treat against Pythium
- Cold period: 16 weeks at 2-9°C
- Planting depth: 8-10 cm soil over the root
- Protection from frost: 15 t straw per hectare; in severe frost, combine straw with sheeting
- Watering: normal moist
- Flower production: every sprout produces one flower
- Cutting stage: lowermost single flowers fully open
- Post-harvest treatment: place in water immediately; deliver to outlet in water
- Additional measures: transport in water. Transportation without water is also possible.

Field cultivation

- Degree of difficulty: not difficult
- Range: Eremurus Rüter hybrid, Eremurus stenophyllus
- Root size: 1 and 2 sprouts
- Planting time: September - October
- Planting density: annual cultivation 8-12 root per m², biennial cultivation 6-8 roots per m²
- Flowering period: end of May - June – July. Cultivation of perennial plants in the cold room is possible.

6. Ixia

Popular name: African corn lily

Family: Iridaceae

Range

- Cultivars for early flowering, including
 - 'Panorama' (white with crimson)
 - 'Rose Emperor' (pale pink)
 - 'Spotlight' (yellow and red)
 - 'Titia' (magenta)
 - 'Venus' (magenta)
- Cultivars for early flowering, including
 - 'Castor' (violet-purple)
 - 'Giant' (ivory white tips with dark centre)
 - 'Hogarth' (cream color with purple centre)
 - 'Marquette' (sulphurous yellow tips, purple-black centre)
 - 'Paradijsvogel' (yellow-red)
 - 'Vulcan' (orange-red)

General

- Plant characteristics
 - Height: approx. 45-60 cm
 - Flower color and shape: various colors
 - Leaf color and shape: green leaves similar to freesia
- Origin: South Africa
- Bulb type: corms
- Hardiness: not frost hardy
- Available sizes: 4-5, over 5 cm
- Availability: September - May
- Storage: dry and airy, after 1 January: 23-25°C, RH 65-75%, to prevent corm from desiccating

Cultivation of cut flowers

- Degree of difficulty: not difficult
- Range: wide range
- Soil type: sand, clay sand, loam
- Sterilize soil before planting: sensitive to Fusarium disease
- Nutrition: apply 7 to 10 kg, 12-10-18 NPK per 100 m² in 2 stages. Supply less N to Fusarium-sensitive cultivars.
- Planting depth: 5 cm
- Protection from frost: cover autumn planting
- Watering: keep moist (but keep crop dry)
- Crop protection: susceptible to Botrytis
- Flower production: 1 to 2 stems per corm
- Cutting stage: lower most 2 blooms showing color
- Additional measures: support with net if required

Early cultivation under glass

- Degree of difficulty: not difficult
- Range: all cultivars for early flowering
- Corm size: from 5 cm
- Storage: appr. 4 weeks at 20-23°C + 6 weeks at 9°C. Batches lifted late: 2 weeks at 30°C + 6 weeks at 9°C.
- Planting time: end of October - beginning of November (for flowering February - March), plant in November for flowering in March - April
- Planting density: 250 corms per m²
- Greenhouse climate: for flowering in February - March 15°C with lighting SON T 50 W/m², below 12°C. For flowering in March - April below 12°C
- Flowering period: mid-February - mid-May

Field cultivation

- Degree of difficulty: not difficult
- Range: cultivars for field cultivation (see range)
- Corm size: from 3 cm
- Planting time: plant in autumn: 20-23°C, plant in spring: 23-25°C, the last 2-3 weeks before planting 17°C.
- Planting density: 175 corms per m²
- Flowering period: July

7. Liatris

Popular name: Gay feather

Family: Compositae

Range

- *Liatris spicata*, grown from seed
- *Liatris callilepis*, propagation by division

General

- Plant characteristics
 - Height: 80-100 cm
 - Flower color and shape: violet (sometimes white) and spike-shaped
 - Leaf color and shape: green, needle-shaped leaf
 - Inflorescence: spikes flowering from top to bottom
- Origin: Central and North America
- Bulb type: corm
- Hardiness: good
- Available sizes: 6-8, 8-10 cm
- Availability: year-round
- Storage: from March at -1°C (first disinfect, then freeze. Do not use filling material)

Cultivation of cut flowers

- Degree of difficulty: can be forced into flower normally
- Range: *Liatris spicata*, *Liatris callilepis*
- Soil type: all soil types, frequent crop rotation in view of *Verticillium*
- Nutrition: moderate, 5 kg 12-10-18 NPK per 100 m²
- Planting depth: appr. 2 cm soil over the roots
- Time to mature: from planting out until flowering appr. 100 days
- Watering: copious watering
- Crop protection: Thrips / *Botrytis*
- Flower production: 1 to 2 flowers per corm
- Cutting stage: crop when the top most 1 cm of the spike is in flower
- Post-harvest treatment: chlorine tablet in water
- Additional measures: support with wire mesh may be advisable

Early cultivation under glass

- Degree of difficulty: not difficult
- Range: *Liatris spicata*
- Corm size: 6-8, 8-10 cm
- Storage: cool, 0°C / -2°C
- Planting time: January - February
- Planting density: 60 (8-10 cm) - 80 (6-8 cm) corms per m²
- Greenhouse climate: January - February 10°C, March 12°C, April 15°C
- Flowering period: mid-May - June

Field cultivation

- Degree of difficulty: not difficult
- Range: *Liatris spicata*, *Liatris callilepis*
- Corm size: 6-8, 8-10 cm
- Planting time: March - June
- Planting density: 60-80 corms per m²
- Flowering period: July - October

Retarded cultivation under glass

- Degree of difficulty: difficult. In higher temperatures early rapid luxurious growth can result in a weak and limp crop. Higher moisture content in the autumn increases the risk of *Botrytis cinerea*. Insufficient light: weak crop, pale flower colors (flower)
- Range: *Liatris spicata*, *Liatris callilepis*
- Corm size: 8-10 cm
- Planting time: end of June - 1st week of July
- Planting density: 60-70 corms per m²
- Greenhouse climate: cool (ventilate frequently)
- Flowering period: appr. 3 to 4 months after planting out

8. Muscari

Popular name: grape hyacinth

Family: Liliaceae

Range

- Muscari armeniacum - December – April
- Muscari armeniacum 'Blue Spike' - March – April
- Muscari armeniacum 'Album' - February – April
- Muscari latifolium - January - April

General

- Plant characteristics
 - Height: appr. 15 cm
 - Flower color and shape: Raceme of blue or white ball-shaped flowers
 - Leaf color and shape: dark green and narrow
- Origin: Southern Europe; North Africa; Western Asia
- Climate requirements: cool, moderate
- Bulb type: bulb
- Hardiness: fairly hardy
- Available sizes + Flowering density:

Muscari armeniacum

6-7 cm: 1 bloom/bulb

7-8 cm: 1 bloom/bulb

8-9 cm: 1-11/2 blooms/bulb

9-10 cm: 3 blooms/bulb,

Muscari botryoides from 5 cm

Muscari latifolium from 6 cm

- Availability: August - December
- Storage: 25-20°C, ventilate well, after 1 October 17°C

Cultivation of cut flowers

- Degree of difficulty: can be forced into flower normally
- Range: box forcing in heated greenhouse: almost exclusively Muscari armeniacum and cultivars. Advancing in the border soil using for example a mobile greenhouse from mid-December. Plant in October - November, apply heat or transfer the mobile after a cold period of appr. 15 weeks. Armeniacum blooms in 2nd half of February; Muscari botryoides: beginning of March; Muscari latifolium: 2nd half of February
- Bulb size: from 7-8 cm
- Cold period: 5 weeks at 9°C, 11-12 weeks at 5°C (if required 2-1°C)
- Planting time: end of September - November
- Soil type: freely draining, moist, pH appr. 7, free from diseases
- Disinfect soil before planting: grey bulb rot, Rhizoctonia tuliparum
- Nutrition: due to short cultivation period no nutrition is needed
- Planting depth: in the greenhouse 1-2 cm soil over the bulbs in the field 3-5 cm soil over the bulbs.
- Protection from frost: not difficult. Straw cover because of only moderate hardiness (remove in time to prevent excessive foliage)
- -Watering: during the cold period, keep the soil moderately moist. Immediately after housing the bulbs, water thoroughly. Water moderately during production.

- Crop protection: disinfect bulb before planting (or before storage); ventilate carefully during dry storage.
- Flower production: depending on bulb size, appr. 3 weeks in the greenhouse
- Cutting stage: first blooms must show definite color
- Muscari on ice: After lifting, store until 1 October at 23°C, 20°C until planting out in mid-November, beginning of December. Then leave to root steadily at 9°C and freeze when the root system has developed sufficiently. This method is the same as for tulips and may be carried out in the tulips cold room. Ensure that the soil stays sufficiently wet. So far, this is only possible for *Muscari armeniacum*.

9. Ornithogalum

Popular name: Star-of-Bethlehem

Family: Liliaceae

Range

- *Ornithogalum arabicum*
- *Ornithogalum saundersiae*
- *Ornithogalum thyrsoides*.

No standard classification. Growers frequently use their own names for selections.

General

- Plant characteristics
Height: 50-100 cm
Flower color and shape: white (mostly) *Ornithogalum thyrsoides*, pyramid-shaped bloom, *Ornithogalum saundersiae* and *Ornithogalum arabicum* umbel-shaped bloom, cream
Leaf color and shape: lanceolate, dark-green leaf
Inflorescence: *Ornithogalum arabicum* black ovaries
- Origin: Europe, Asia and South Africa
- Bulb type: bulb
- Hardiness: not frost hardy
- Available sizes:
Ornithogalum arabicum: 12/14, 14/16, 16/18, 18 cm and up
Ornithogalum thyrsoides: 4/5, 5/6, 6/8, over 8 cm
Ornithogalum saundersiae: from 14 to more than 20 cm
- Availability: December - mid-May
- Storage: in containers at 25°C, well ventilated

Cultivation of cut flowers- Degree of difficulty: easy to force into flower

- Range: *Ornithogalum arabicum*, *Ornithogalum saundersiae*, *Ornithogalum thyrsoides*
- Soil type: good, moist soil
- Nutrition: normal (not too much N to prevent the disease black leg)
- Planting depth: 3-5 cm soil over the bulb
- Watering: plenty before flowering, moist throughout cultivation
- Crop protection: thrips control appr. 10 days before harvesting
- Flower production:
Ornithogalum arabicum: 1 stem per nose
Ornithogalum saundersiae: 1 stem per nose
Ornithogalum thyrsoides: 1-3 stems per bulb (100-120 stems per m²)
- Cutting stage: when the lowermost bloom shows white
- Post-harvest treatment: in water

Advanced cultivation under glass

- Degree of difficulty: normal
- Range: *Ornithogalum arabicum*, *Ornithogalum saundersiae*, *Ornithogalum thyrsoides*
- Bulb size:
 - Ornithogalum arabicum*: from 18 cm
 - Ornithogalum saundersiae*: from 14 cm
 - Ornithogalum thyrsoides*: 5-6, 6-8 cm
- Storage:
 - Ornithogalum arabicum*: 25°C up to 1 month before planting, then 17°C
 - Ornithogalum thyrsoides*: 8 weeks at 30°C, then 23°C until 1 month before planting, then 17°C
- Planting time: February - beginning of March
- Planting density:
 - Ornithogalum arabicum*: 60 bulbs per m²
 - Ornithogalum saundersiae*: 60 bulbs per m²
 - Ornithogalum thyrsoides*: appr. 90 bulbs per m²
- Greenhouse climate: start with 10-15°C, then 20°C
- Flowering period: from 20 May (2nd cut possible in *Ornithogalum thyrsoides*)

Field cultivation

- Degree of difficulty: not difficult
- Range: *Ornithogalum arabicum*, *Ornithogalum saundersiae*, *Ornithogalum thyrsoides*
- Bulb size:
 - Ornithogalum arabicum*: 12-14 cm, etc.
 - Ornithogalum saundersiae*: from 14 cm
 - Ornithogalum thyrsoides*: 4-5 cm, etc.
- Planting time: from mid-March - end May
- Planting density:
 - Ornithogalum arabicum*: 80 bulbs per m²
 - Ornithogalum saundersiae*: 60 bulbs per m²
 - Ornithogalum thyrsoides*: appr. 110-80 bulbs per m² (depending on the bulb size)
- Flowering period: from mid-July

Retarded cultivation under glass

- Degree of difficulty: relatively difficult due to decreasing light intensity
- Range: *Ornithogalum thyrsoides*
- Bulb size: 5-6 cm etc.
- Planting time: from end of May
- Planting density: 80-110 bulbs per m² (depending on bulb size)
- Greenhouse climate: preferably cool
- Flowering period: appr. 4 months after planting out

10. Ranunculus

Popular name: Persian buttercup

Family: Ranunculaceae

Range Peony-flowered. There are more types available

General

- Plant characteristics
 - Height: 30 cm
 - Flower color and shape: white, yellow, pink, gold, orange, red and mixed
 - Leaf color and shape: green
 - Inflorescence: 5 green sepals, large numbers of stamens and pistils
- Origin: Cyprus, Aleppo, Damascus
- Bulb type: tubers, fleshy enlarged roots (small, claw-like tubers)
- Hardiness: not frost hardy
- Available sizes: from 4 to more than 7 cm
- Availability: year-round
- Storage: 10-15°C, dry

Cultivation of cut flowers

- Degree of difficulty: can be forced into flower normally
- Range: peony-flowered
- Soil type: good, moist sand or sandy clay soil.
- Sterilize soil before planting: not required. If necessary, control Pythium
- Planting depth: appr. 2 cm soil over the tubers
- Protection from frost: keep frost-free in cold greenhouse
- Watering: sufficient water
- Crop protection: if necessary, against Botrytis. If necessary, against Thrips/Rhizoctonia
- Flower production: field cultivation in June
- Cutting stage: as soon as the flowers start to show color
- Additional measures: peony-flowered tubers are dipped in water to accelerate germination. Never plant on freshly tilled or deeply ploughed soil.

Advanced cultivation under glass

- Degree of difficulty: normal
- Range: peony-flowered
- Tuber size: 6/+
- Storage: dry at 10-15°C
- Planting time: mid-October - mid-December
- Planting density: 40 tuber per m² net
- Greenhouse climate: heated greenhouse, from planting out until the beginning of February 8-10°C, then at 12-15°C in cold greenhouse. Keep frost-free
- Flowering period: heated greenhouse: from beginning of April. Cold greenhouse: from the end of April

Field cultivation

- Degree of difficulty: normal to difficult
- Range: peony-flowered
- Tuber size: 4/+
- Planting time: mid-March - end of April (after frost), or plant in the field at the beginning of July as delayed cultivation
- Planting density: 30-40 tubers per m² net
- Flowering period: June, when planting out in July, flowering in September - October

11. Triteleia

Family: Liliaceae

Range

Triteleia 'Koningin Fabiola'

Triteleia laxa

Triteleia bridgesii

Triteleia 'Corrina'

Triteleia 'Tubergenii'

Brodiaea californica

Brodiaea congesta

Brodiaea lactea

Brodiaea peduncularis

(The first two are the most-commonly cultivated species accounting for 90%)

General

- Plant characteristics
 - Height: 40-60 cm
 - Flower color and shape: bright blue to violet, the flowers have a perianth with large spots
 - Leaf color and shape: green, elongated and narrow
 - Inflorescence: profuse foliage development is followed by flower emergence from the bulb after the leaves have died down
- Origin: North-west America, Canada and South America
- Bulb type: corms
- Hardiness: sensitive to frost - cover with straw: 250 kg per 100 m²
- Available sizes: from 4, 4-5, 5-6, 6-7, over 7 cm
- Availability: August - March
- Storage: 23-25°C, dry and well ventilated

Cultivation of cut flowers

- Degree of difficulty: easy to force into flower
- Range: the entire range
- Soil type: all soil types
- Sterilize soil before planting: sensitive to Rhizoctonia solani and Rhizoctonia tulipae
- Nutrition: 7 kg NPK 7.14.28 pe 100 m²
- Planting depth: 4-6 cm soil over the corms
- Protection from frost: cover when there is a risk of frost
- Watering: normal moist soil until flowering
- Crop protection: not usually needed (strong plants)
- Flower production: 1 bloom per corm
- Cutting stage: when first bloom opens
- Post-harvest treatment: add a little chlorine to the water, relatively long-term storage possible in cold room
- Additional measures: the flower appears after the leaves have developed fully. Therefore, move the leaves to one side so that the flower stem is not obstructed by the leaves

Advanced cultivation under glass

- Degree of difficulty: not difficult
- Range: *Triteleia* 'Koningin Fabiola', *Triteleia* 'Tubergenii'
- Corm size: 5-6 cm
- Storage: 6 weeks at 9°C, 20°C
- Planting time: November, with daylight extension flowering is advanced by 3 weeks
- Planting density: 200 per m²
- Greenhouse climate: 17°C with lighting, daylight extension up to 16 hours, appr. 15W/m², from emerging.
- Flowering period: March - April

Field cultivation

- Degree of difficulty: not difficult
- Range: the entire range
- Corm size: 5-6 cm
- Planting time: November or March - April
- Planting density: 200 corms per m²
- Flowering period: June

Delayed cultivation under glass

- Degree of difficulty: not difficult
- Range: *Triteleia* 'Koningin Fabiola' and *Triteleia laxa*
- Bulb size: 5-6 cm
- Planting time: until the end of July - first week of August
- Planting density: 200 corms per m²
- Greenhouse climate: 17-20°C
- Flowering period: appr. 2½ to 3 months after planting out.