

THE CULTIVATION OF 5°C TULIPS

! The following information is meant to be advisory. We (VWS) cannot be held responsible for any damage and/or bad results. For concentrations of the mentioned products, please consult the instructions of the packing. Any damage by the use of remedies is for your own responsibility.



We herewith give you some important suggestions for the cultivation of forced bulbs for planting in the soil of the greenhouse, which will help you to make your cultivation a success! There are also two other methods: forcing in boxes and ice tulips. Forcing in boxes involves planting the bulbs in boxes after which they are placed in a rooting room or place on the ground outdoors. This enables the bulbs to be given the complete cold treatment required.

Before planting

The soil in which you want to plant the tulips should have the following soil requirements:

- good structure, no clods
- good drainage
- free of diseases, otherwise steam or disinfect the soil
- a pH, preferably not lower than 6
- low salt level, if you think this is too high then give the soil plenty of water two weeks before planting, so the salt can rinse out
- no tulip bulbs have been planted preciously, crop rotation!
- try to keep the soil temperature as low as possible by screening/shading the green/plastic house with a shade canvas of 50 to 70% and keep the soil moist, starting two weeks before planting!
- we recommend a soil treatment with Rizolex before planting (besides of course the soil disinfection)
- Before planting peel or skin the bulbs! *Skinning or peeling is the careful removal of the brown tunic encircling the root wall. This to avoid root scorch and the roots start earlier to grow.*

Before planting we also advise to disinfect the bulbs against :

- Fusarium and botrytis
- Pythium

Please note that this is an indication of how to force tulips on water, each different circumstances asks for a different approach, therefore if you have questions or you want to know something more about forcing tulips on water, please do not hesitate to contact
VWS

Planting 9°C tulip bulbs in the soil of the greenhouse

When forcing 9°C (pre-cooled) tulips in the soil, part of the cool treatment is applied to the dry bulbs

and the remaining part of the cool treatment is subsequently applied after planting in the greenhouse.

Non-cooled bulbs undergo the entire cool treatment after planting.

- It is not necessary, but advisable, to skin the bulbs.
- Plant the bulbs when the soil temperature is 9°C or lower.
- If the soil temperature is a few degrees above the required temperature for some time after planting, it might well be necessary to increase the cool period.
- Cover the bulbs with 2 to 5 cm soil.
- After planting a greenhouse temperature of 5 to 2°C should be maintained. Ventilation in time will be very helpful in this.
- To ensure a good root system, the tulips should receive at least 6 weeks of cooling in the soil.
- A greenhouse temperature of approx. 18°C among the plants is recommended after cooling treatment.
- Furthermore you can follow the 5°C tulip forcing method.



Planting of 5°C tulip bulbs

- Plant the bulbs in slightly moist soil.
- Do not push the bulbs roughly into the soil.
- Never plant during the hottest period of the day.
- Skinned bulbs should be planted with a 5 cm layer of soil above the bulbs.
- Depending on the cultivar, bulb size and planting time +/- 250 bulbs are planted per m².
- Water the soil well after planting, so the soil fits well around the bulbs, this promotes a trouble-free rooting.

After planting

Try to keep the soil temperature as low as possible (10°C) in the first two weeks after planting by:

- shading the green/plastic house two weeks before planting.
- covering the soil with dry straw after planting, otherwise it starts rotting.
- providing ample ventilation continuously.

Try to keep the soil constantly moist, water only in morning times with cold water. When watering, always keep in mind that the upper layer of the soil should be soft. A guideline for watering is that if the soil just under the bulb can be made into a compact ball, there is sufficient moisture for the plant.

After this period the best temperature is around 13 to 15°C for about two weeks, so the bulbs can make good roots. When the bulbs made good roots you can give 50 gram calcium nitrate per m², the temperature can then also rise to 17 to 19°C.

Keep the relative humidity in the greenhouse below 80% by ventilating, also ventilate after watering.

When the tulip plants reach a height of 5 to 10 cm, the plants will have to be checked for bulbs that have not emerged. These bulbs should be removed immediately so that they do not affect neighbor plants.

Harvesting

You can start harvesting when the flowers have reached a good color and the flowers are closed. Harvest the entire plant including the bulb (if necessary in this stage you can store the plants in upright position in a cooling room).

Remove the bulbs just before or after bunching and place the bunch for a minimum of 30 to 60 minutes in cold water, mixed with 10 gram calcium nitrate per liter water. After that place the bunches for a period as short as possible in the cold storage at a temperature of 2 to 5°C with a relative humidity of minimum 90%.



Peel the bulbs.

Remember

1. Prepare the soil.
2. Keep the soil temperature low by shading and watering the soil, starting 2 weeks before the bulbs arrive.
3. Disinfect the bulbs against:
 - Botrytis and fusarium
 - Pythium
4. Peel the bulbs.
5. Avoid a too high temperature and humidity.