Yodfat Flower Bulbs Nurseries

www.yodfat.co.il

Anemones growing instructions

Manual & Tips

Carmel Blue

Carmel White

Carmel Red

Carmel bordeaux

Galilee – ‘Pastel’

Galilee Blue

Galilee –Red

Galilee pink

‘Red’ and the ‘Bordeaux’ - the Meron series


Jerusalem Pink


Jerusalem Blue

Anemone belongs to the Ranunculus family

Native to the West Asian countries, Anemone also grows in the wild of the Mediterranean and Southern European countries.

Anemone is a herbaceous corm plant that hibernates during the summer months.

Anemone income potential for 1000square meter:

	quantity	price	expenses in us$	
bulbs	15,000	0.2	3,000	
processing the soil	1000m2	1	100	
Spraying materials	40	20	800	
fertilizing	150	10	1,500	
workdays	150	40	6,000	
packing material			500	
commission			500	
			12,400	$

minimum flowers from1000m2	**price per flower**	**total incom in us$**		
150,000.00	**0.15**	**22,500.00**	**10,100.00**	**$**

The Optimal Growing Conditions:

Full daylight and temperatures of 20ºC during the day and 3ºC during the night. Under warmer conditions it is possible to grow in the open fields under shading nets of 20%-30%.

Physiology

The flowering ability is found in the corm that has a periphery of more than 3 cm.

• During the flowering season the corm produces about 10 flowering stems and more. The first flower appears in the center of the apical meristem after approx. 7 leaves have formed. Additional flowers are formed from the side eyes of the leaves.

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Bulbs can be used only one growing season

Selection of the plot:

1. **The medium / soil must be aerated and drained.**
2. **It is possible to grow on detached mediums, such as volcanic rock, coconut and vermiculite**
3. **Seed rotation – it is advisable to switch areas from season to season, but it is also possible to grow in the same soil after disinfestations.**
4. **Without applying disinfestation the same soil cannot be used for at least 10 years.**
5. **The recommended disinfestations are: Methyl bromide+ Solar, it is also possible to apply with Metam sodium and similar chemicals.**
6. **It is recommended to select areas that have moderate sloping northwards.**

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Growing on
volcanic rock media

Growing on detached mediums – in coconut

Forcing:

Natural flowering without Forcing begins in the early spring

Forcing process shall enable flowering 45-50 days after planting.

Forcing:

1. Soak corms for 24 hours in running water (after filling the vat, let the faucet drip so that there is a continual run-off). Soak in cool water, in a shaded place. Corms will expand to three times their size – if soaking in net bags, allow enough room. Use water-proof tags to identify the corms.

Forcing

2. Drain the corms and disinfect them for 20 minutes in a solution of 0.3% Captan-50%W.P. and 0.15% Carbendazim-50%W.P.. Drain, but do not wash off the disinfectant.

Forcing **3.** For proper forcing, moisture must be retained. A good way to ensure this is to pack the corms in wet vermiculite. 100 liters of vermiculite is sufficient for packing 10,000 corms. Wet 100 liters of size no.3 vermiculite with 22 liters of water to which 0.1% Captan-50% W.P. has been added. Too much moisture can cause rot: if vermiculite drips water when squeezed, it is too wet!

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Forcing: **4.** Pack the corms and vermiculite in open-weave baskets or drainable plastic boxes. Put a layer of newspaper on the bottom of the box,

then a thick (1-2 inch) layer of vermiculite, mix the corms and vermiculite together. Finish with a thin layer of vermiculite, and a layer of newspaper. Do not forget to tag the box.

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Forcing:

5. Refrigerate the corms for four weeks at 2° C.

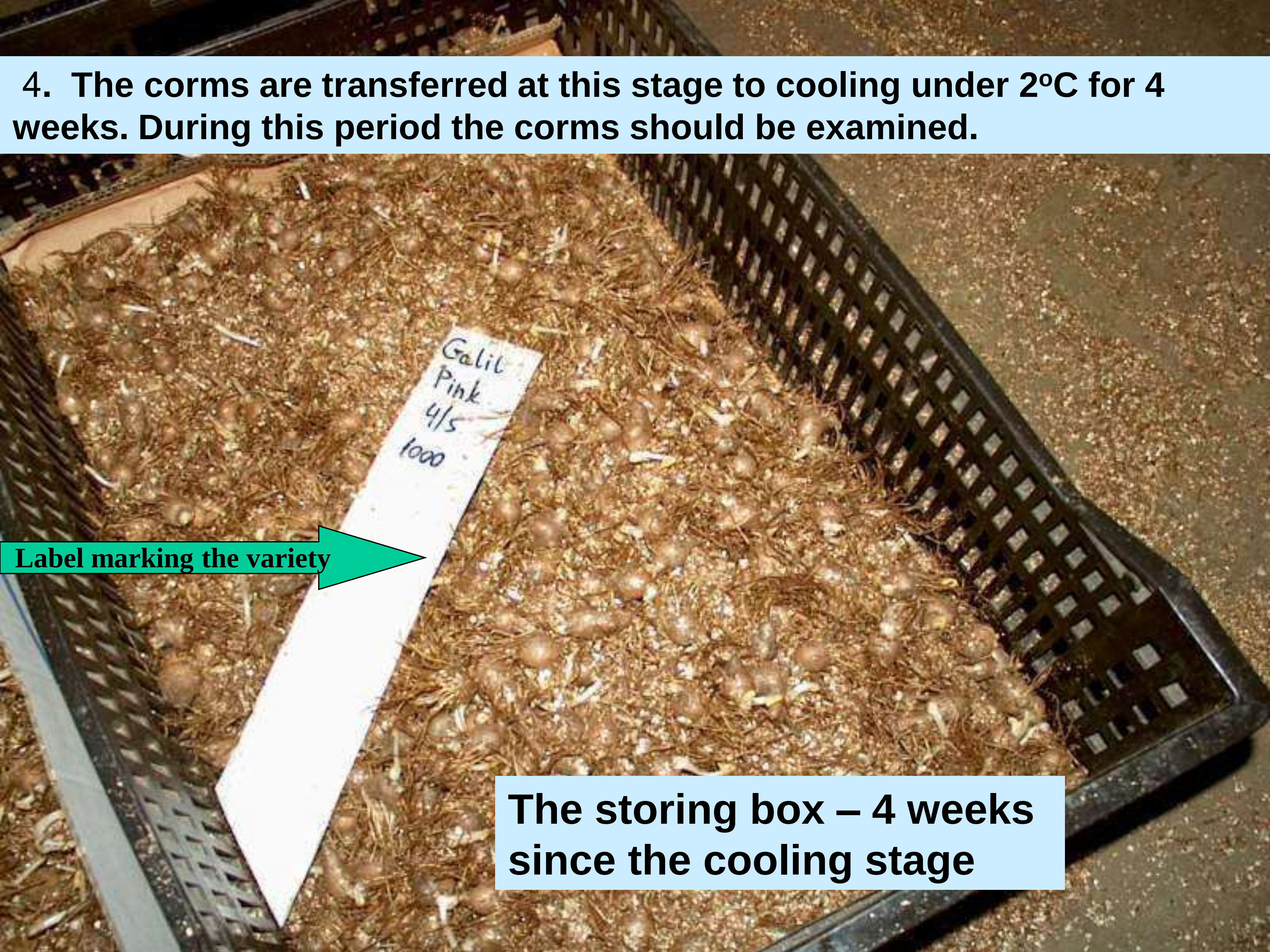
6. During the refrigeration time, check the corms periodically. If there are signs of fungus, discard the infected corms, disinfect the healthy ones and repack in fresh vermiculite. Check that the corms and vermiculite are still moist, but there should not be water in the bottom of the box.

Planting density and depth: 25-30 corms per sq. meter. Plant in raised beds; three rows can be planted in a meter-wide bed. For easier picking, place the rows fairly close to the margins (two rows on one side, one row on the other).

Plant with point of corm downwards. (If corm was upside down during forcing, rootlets will be growing upwards. Ignore this and plant correctly with the eye up and the pointed end down. Roots will adjust). Cover with 1”-2” soil (depending on type of soil)

Corm after the forcing

4. **The corms are transferred at this stage to cooling under 2^{o}C for 4 weeks. During this period the corms should be examined.**



Label marking the variety

The storing box – 4 weeks since the cooling stage

Planting:

Anemone corm
The pointed part is faced downwards

• In four rows

• 20-25 corms per square meter

• The pointed part of the corm is planted downwards and the corm should be covered with 3-5 cm. of soil.

The pointed part is covered with roots after forcing

Planting Density

Number of corms per dunam (= 1,000 sqm.)	Space between corms in cm.	Size of corm in cm.
16,000	**16**	**3-4**
15,000	**17**	**4-5**
14,000	**18**	**5-6**


4 rows of raised beds

Irrigation:

- Immediately after planting approx. 30 m^3 of water is given in order to close the gaps in the soil.

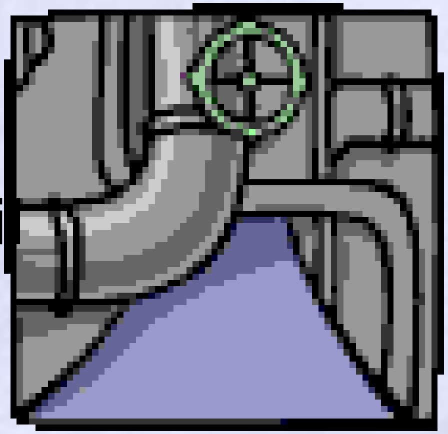
- Until germination water should be given 4-6 times a day – total of 4-6 m^3 water per dunam (1,000 sqm.) a day. The soil must remain wet.

- Germination begins about a week from planting time and the soil must remain moist. It is recommended to switch to drip irrigation after the germination stage.
The daily dose is 3-6 m^3 of water per dunam.

- If the temperatures continue to be high, sprinklers are used for cooling down.

- Surplus water should be avoided even though this crop develops well with sufficient amount of water.

Fertilization:



• It is of course recommended to carry out soil analysis prior to planting.

• The general recommendation is application of approx. 150 kg. Super phosphorus per dunam + 50 kg. of potassium chloride prior to processing.

• Phosphorus is very crucial in the soil. Lack of phosphorus shall impact the absorption of the vital elements. It is possible to add organic cattle manure or fowl manure that have already processed the compost stage. The manure should be scattered all over

Fertilization:

- <u>**No fertilizers are applied during the first month**</u> **in order not to harm the young roots that form during the stimulation process. The corm has sufficient nourishment to begin its growth.**

- **Later on it is recommended to fertilize at a level of 150 PPM nitrogen and potassium and 20-30 PPM phosphorus.**

Since Anemones are grown outdoors, fertilizers should be increased after the rains that wash off the fertilizers.

Shading nets:

30% shading nets are useful during the germination stage when temperatures are above 20ºC.

The net helps also in obtaining longer stems.
When daylight lessens and light intensities are low it is recommended to remove the nets in order not to affect the yield and quality.

Shading nets reduce the number of stems by approx. 30%, if used throughout the entire growth.

A permanent net is suitable in countries where light intensities are high all year long.


Harvest, Sorting, Bunching

Harvest, Sorting & Bunching

• **Until it's time for marketing, all short and poor quality flowers must be removed.**

• **Harvest is done during the cool hours and the flowers are placed into <u>clean</u> buckets / containers with water.**

• **Harvesting stage –is when the flowering buds are erect and as color emerges.**

• **The flowers must remain in a cool shaded area until transferred to the cooling room.**

• **The flowers must be saturated and kept standing in the cooling room for at least 2 hours.**

• **After the saturation stage they are transferred the sorting & bunching room. Throughout the storage and transport the**

flowers must be kept standing in order to avoid bending of the flower throat.

Unpacking of flowers

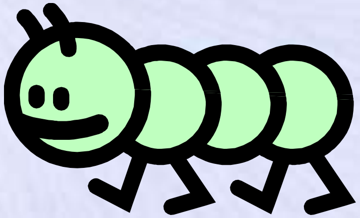
Selling stage

THIS SIDE UP

Anemones placed standing up in boxes

Plant Protection pests in anemones

- Botrytis
- Sclerotina sclerozcorm
- Altenaria
- Colletotrichum
- Rhizoctonia
- Rust
- Powdery mildew
- Spodoptera littoralis
- Agrotis segetum
- Mole
- TSWS



Herbarium

Disinfestations

- Solar disinfestations
- Prior to planting or prior to blossoming apply 2,4 D (Paraqual + Diquat)
- Pre-blossom - apply **Pyrazon** (100 grams per dunam), or **Chlorthal** (1 kg. per dunam).
- During the course of the growth - apply **Dimethyl**

VBN Marketing Data

2014	2015	2016	
56,842,000	52,429,500	60,105,000	Quantities
14	15	16	Price (Cent Euro)

Breeding Targets:

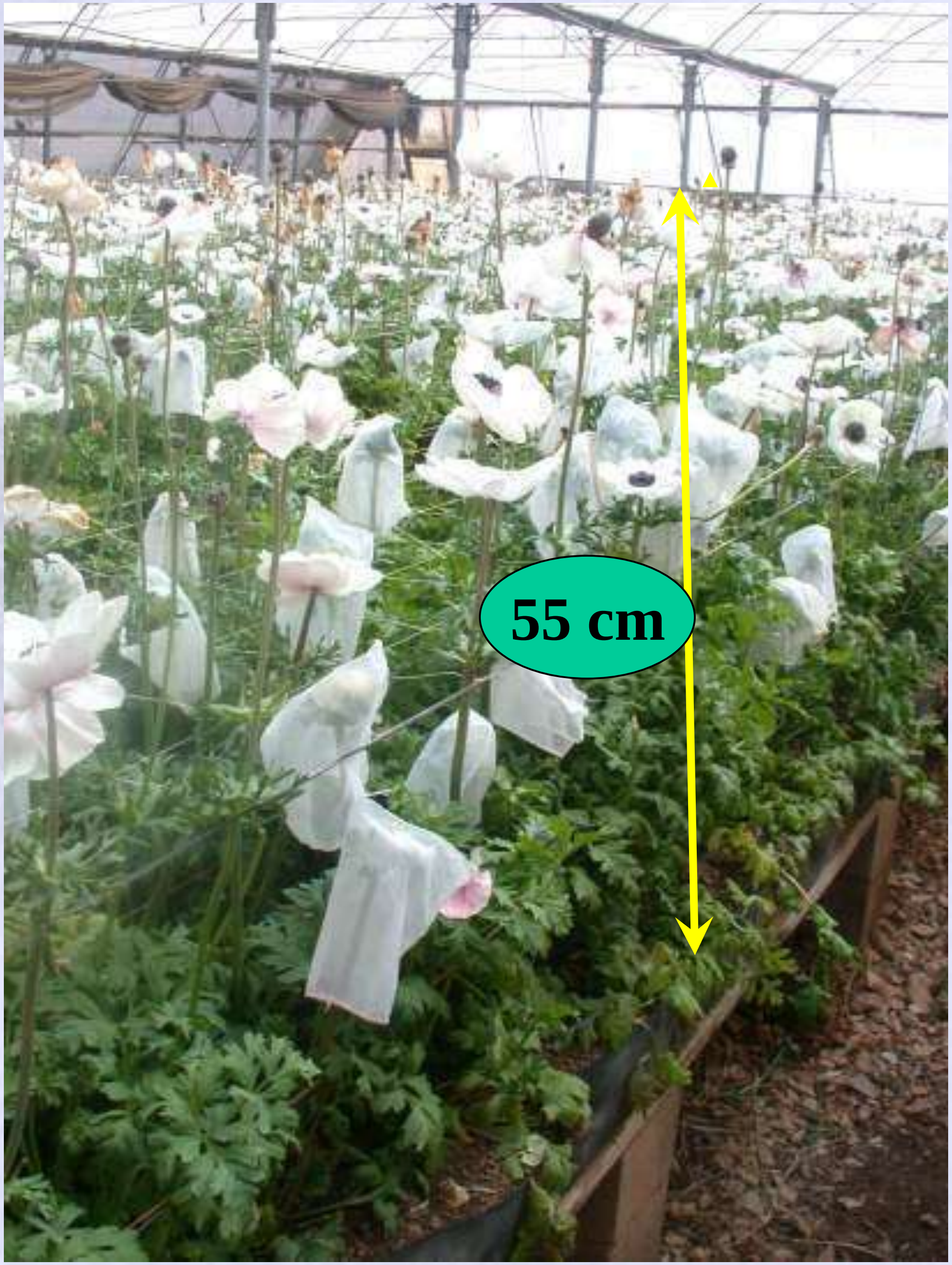
The breeding team at the Yodfat nursery put an emphasis:

- **On the quality of the flower (length, height & width…)**
- **Uniform intense colors.**
- **Uniform growth**
- **Susceptibility to diseases.**
- **And of course, early flowering & yield.**




Brand new

As mentioned earlier, the breeders put an emphasis on the length of the flowering stems among other things…



At the Yodfat nursery – sowing is carried out in November, harvest of corms in done in mid May and the corms are stored up to 3 years

And this is how it grows in the wild in Israel,

Thank you for your kind attention & for listening

We will be happy to answer to
any question you have
Our email is :
yodftltd@zahav.net.il

www.yodfat.co.il

Growing Instructions

INTRODUCING THE YODFAT ANEMONES:

One of the most profitable cut flowers available. Each corm produces at least 10 blooms with tall strong stems. Corms may be forced for good winter production and early flowering.
Varieties and colors:
Jerusalem Anemone: blue, magenta pink, violet, scarlet, bicolors blue/white and red/white
Galilee Anemone: blue, pink, scarlet, pastel blend, white, albino
Meron Anemone: blue, pink, scarlet, wine, albino
Corm sizes: 3/4, 4/5, 5/6
Growing conditions: Full light. Optimal growing temperatures: 3˚ – 20˚ C
(36˚- 68˚ F). They may be grown in open fields; in warm climates, under 20% shade netting.

Soil: Soil must have good drainage and be free of disease. A slope is best for drainage. Crop rotation is important; grow anemones on the same field only after soil disinfection. Before planting, deep-plow and add composted manure. Disinfect soil to eliminate weeds and fungi. Ideal ph is between 6.5 and 7.5.

Forcing:
1. Soak corms for 24 hours in running water (after filling the vat, let the faucet drip so that there is a continual run-off). Soak in cool water, in a shaded place. Corms will expand to three times their size – if soaking in net bags, allow enough room. Use water-proof tags to identify the corms.

2. Drain the corms and disinfect them for 20 minutes in a solution of 0.3% Captan-50%W.P. and 0.15% Carbendazim-50%W.P.. Drain, but do not wash off the disinfectant.

3. For proper forcing, moisture must be retained. A good way to ensure this is to pack the corms in wet vermiculite. 100 liters of vermiculite is sufficient for packing 10,000 corms. Wet 100 liters of size no.3 vermiculite with 22 liters of water to which 0.1% Captan-50% W.P. has been added. Too much moisture can cause rot: if vermiculite drips water when squeezed, it is too wet!
4. Pack the corms and vermiculite in open-weave baskets or drainable plastic boxes. Put a layer of newspaper on the bottom of the box, then a thick (1-2 inch) layer of vermiculite, then a layer of corms. Repeat layering, or mix the corms and vermiculite together. Finish with a thin layer of vermiculite, and a layer of newspaper. Do not forget to tag the box.
5. Refrigerate the corms for four weeks at 2˚ C.

6. During the refrigeration time, check the corms periodically. If there are signs of fungus, discard the infected corms, disinfect the healthy ones and repack in fresh vermiculite. Check that the corms and vermiculite are still moist, but there should not be water in the bottom of the box.

7. After about four weeks, corms will begin to sprout and form rootlets. When removing from the box and during planting, take care not to damage the new growth. Do not handle roughly or let them dry out in the sun (when planting, shade the corms with a damp cloth or wet newspaper).
Planting dates: Autumn or spring. Soil temperature: around 20˚ C (68˚ F)

Planting density and depth: 25-30 corms per sq. meter. Plant in raised beds; three rows can be planted in a meter-wide bed. For easier picking, place the rows fairly close to the margins (two rows on one side, one row on the other).
Plant with point of corm downwards. (If corm was upside down during forcing, rootlets will be growing upwards. Ignore this and plant correctly with the eye up and the pointed end down. Roots will adjust). Cover with 1”-2” soil (depending on type of soil)
Irrigation: Plant in moist soil. The first watering is very important – soil should be damp to a depth of 35-40 cm. (15”). Water daily with sprinklers to cool soil until sprouting, more often if weather is hot. Then use drip irrigation. Drippers should be placed every foot; one dripper line between every two rows. Avoid over watering.

Fertilizers: It is best to test the soil. A general suggestion is to add 150 gr. superphosphate, 50 gr. potassium chloride, and 25 gr. ammonium sulphate per m^2 when preparing the field. Also add 2 gallons composted manure per m^2. One month after sprouting, apply 7-3-7 NPK, roughly 90-140 ppm nitrogen, according to the needs of the plants and the soil..
Disease Prevention: Spray once a week against botrytis and sclerotina sclerotium. Watch out for thrips, aphids, and cicadas which carry viruses. Keep field free of caterpillars that damage leaves and flowers.

Weed Control: Disinfecting the soil before planting helps reduce weeds. Spray against weeds only before sprouting (forced corms will sprout within a few days!). Do not use systemic herbicides. During cultivation, only hand weeding can be done. Herbicides specific to grains may be used after a trial on a small patch.

Cutting: Earliest picking is when bud straightens, shows color, and no white fuzz remains. For larger buds, pick later. Pick flowers early in the morning, stand the flowers immediately in water in a shady place until refrigerated. Clean cutting tools are essential. Cut flowers should be allowed to stand in water in the refrigerator for two hours before sorting and bundling. During storage and transport, flowers must always stand upright, in order to prevent the stems from bending.