annual 30-50 s/gr

Choco Sun

BEDDING / POT CULTURE

culture greenhouse/open field
sowing method TP (DS)

sowing season

mid winter to mid summer (NL wk 4 to wk 30)

germ temp. 21-24°C (70-75°F) **growing temp** 17-18°C (63-64°F)

2,5-3 wks (late spring)

total crop duration

plug crop time

10 weeks (late spring and summer)

seed requirement

1200 seeds for 1000 plants

pests/diseases

Aphids, thrips, whitefly, leaf miners, downy mildew. After potting a treatment (Rizolex) against root diseases is advised.

Thrips affecting young flower buds are the main cause of malformed flowers.

fertilization (f)

Moderate requirement. Sunflowers are sensitive to boron deficiency. Supplementation may be necessary. Further: see cultivation tip.

SOWING DETAILS

- Direct sowing (DS):
 (Multi-) sowing in 13 cm (5 in.)
 and larger pots is possible,
 resulting in vigourous plant
 growth.
- Pre-sow and transplant (TP):
 soil : sterile sowing mix, pH
 5,5-6,5 and 2.0 EC* in the soil
 sow : 1 seed per plug (200 tray/

preferably deep plugs) cover: lightly cover with sand

days 1 - 4 (m) level 4

- (t) 21-24°C (70-75°F)
- (I) optional
- (f) < 100 ppm N, < 0.7 EC

days 5 - 6 (m) level 3-4

- (t) 20-21°C (68-64°F)
- (I) 27.000 lux (2500 fc)
- (f) < 100 ppm N, < 0.7 EC

days 7 - 9 (m) level 3

- (t) 16-22°C (61-72°F)
- (I) 54.000 lux (5000 fc)
- (f) 50-75 ppm N, < 0,7 EC

days 10-16

Transplant at 2 true leaf stage. See note.

GROWING ON

soil/media

pH 5,5-6,5 and 1.2 EC

pinching

Pinching is optional.

plants per pot

1 plug per 12-13 cm (5 in.) pot 3 plugs per 15 cm (6 in.) pot

plant density (garden)

Pot size 12-13 cm: 10-14 plants per m², depending on growing method and time of year.

moisture (m)

Moderate requirement/quite dry especially 2-3 weeks after potting. Avoid leaf burn caused by overhead irrigation and excessive sun.

temperature (t)

Optimum temperature is 17-18°C (63-64°F) with a soil temp. of 18°C (64°F). Low soil temp. results in poor root growth and malformed flowers. Ventilate when temp. is over 20°C.

light (I)

High light/full sun. Short days conditions can be applied 5 weeks after sowing (NL as from week 12-13) for 11,5 hours/day and 13 ours/night. See the note below.

CULTIVATION TIPS

- * Higher EC levels have a positive effect plant compactness. An EC level of 3 causes a stronger plant reaction than a higher potassium or sulfate level. Also, this would lessen leaf yellowing.
- Root penetration in the underground must be avoided as much as possible.

NOTE

- Until late winter (NL week 9) additional light is applied (16 hours) for optimum result.
- Short day culture (11,5 h/day) means smaller flowers. Long days after a short day period results in larger flowers. DIF is optional. This results in a shorter crop time and more uniformity in flowering.

PGR

Limited requirement.

Apply GPR (e.g. 2-4 gr Alar 64/I) when the first real leaf pair is fully developed. Bonzi can be applied in the final stage. GPR's on open flowers are not recommended.

moisture levels (m): 1 = dry 2 = normal to dry 3 = normal 4 = moist 5 = wet

This information is for genaral guidance only, and is in some cases specific for West European conditions. No guarantee is given for the result of the crop, nor is liability accepted for the consequences of applying the indications given.