



SOLIDAGO

**Danziger's
Cultivation Guide**

Imagine more



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Botanical Background

- Solidago is a perennial: it can produce several flowering flushes in a span of 1 to 2 years.
- Solidago is a quantitative long day plant: it requires a minimum of 12-13 hours day light in order to elongate and flower.
- Kingdom: Plantae
- (unranked): Angiosperms
- (unranked): Eudicots
- (unranked): Asterids
- Order: Asterales
- Family: Asteraceae
- Subfamily: Asteroideae
- Tribe: Astereae
- Genus: Solidago

Physiological Background

- **Day Length**

Exposure to a minimum of 13 hours daylight.

- **Temperature**

Cold temperatures inhibit the reaction to day length. High temperatures quicken the process from induction until flowering.

- **Light Intensities**

Influence the inflorescence habit

Propagation

- U.R.C taken from the Mother stock and than transmitted to rooting area to develop the root system in the plug.



Propagation



Rooted plants

The Growth Cycle

- Planting
- Plant development
- Pinching
- GA treatments
- Long Day treatment
- Thinning out
- Flowering
- Harvest
- Pruning
- GA for second flash

Planting Time & Development

- Solidago can be planted anytime of the year.
- It is best to plant under cool weather conditions.

Plot Preparation

- 1m bed, 0.5m path way.
- 2 drip lines along the bed.
- 1.6-2 L/H drippers every 20cm.
- Main and secondary support ladders.
- Artificial lightning system- 3m between lamps and 3m between the lines.
- Preparation for shading net.



Planting

- Recommended planting density: 20 plants per net square meter.
- Plant in 4 rows per bed.
- 20 cm between the plants.

Irrigation & Fertilization

- For first 2 weeks after planting use overhead irrigation.
- High levels of Nitrogen in relation to Potassium cause yellowing of leaves.
- During the warm seasons when it is necessary to obtain strong branches the recommended proportion is: 1.5: 1 K / N, in cold seasons work on the proportion of 1: 1 K / N. The critical period to adhere to this ratio is about a month before harvest.
- **Fertilization rates during the growth:**

Element	N	P	K	Ca	Mg
Ratio	8	3	5	3	6

Pinching

- Pinching is preformed about 3-5 weeks after planting.
- Preformed low on the central stem.



Pinching



Not ready for pinching



Pinching time

Long day treatment

• **Artificial lighting is used to simulate long day conditions. It is important to note:**

1. Light intensity should be aimed at a minimum of 120 Lux.
2. Light can be applied intermittently, at a proportion of 1:2.
3. Day should be lengthened to ~16 hours.
4. The light should be placed high enough to cover two beds underneath.
5. In most varieties 'Long day' treatment is stopped at bud formation.

In **Golden Glory™**, when stems are ~ 40-50cm long.



GA Treatments

- GA applied after pinching in first flush.
- In following flushes it is applied after pruning when enough new potential shoots have developed.
- A solution is prepared and sprayed on the apex of the plants.
- Recommended concentrations vary from 75 to 100 ppm. Application every 7-10 days until plant reacts.



Thinning out

- 4-5 uniform stems left on each plant.
- Performed when shoots are 10-15 cm long.



Harvest

- **Harvest stage:** The top flowers of the inflorescence begin to open.



Post-Harvest

- **Post Harvest Solution:**
- 1. STS - T.O.G 75 (S.T.S.): 0.1%
- 2. T.O.G 4 (**Hydroxyquinoline** 100g / L): 0.1%
- Before packing and bunching, dry any residual water on foliage. The technique used in Kenya: usage of fans and drying on benches.
- Before sleeving, spray with '**Polar**' (**Polyoxin** 50%), at a concentration of 3 gr' per 10 Liters.



Post-Harvest

- The branches are harvested and placed in a bucket containing the solution and are kept for 4 hours in the shade and not refrigerated.
- Then branches are sorted and the lower leaves are removed. They are then kept in cooling (2°C) until delivery of the buckets with the same solution.
- Branches can be refrigerated up to 3 days.
- be careful not to place too many branches in one bucket, thus allowing better cooling and branches to be shipped out will be at a suitable temperature (2°C).

Pests and diseases

Pests:

- White Fly
- Aphids
- Leaf Miner
- Caterpillar

Diseases:

- Powdery Mildew
- Rhizoctonia
- Agrobacterium

Pests and diseases



Commercial Varieties

- GOLDEN GLORY™



Commercial Varieties

- **ANGELS GLORY™**



Commercial Varieties

- **MOONLIGHT GLORY™**



Commercial Varieties

- **ROMANTIC GLORY™**



Commercial Varieties

- **SOLAR GLORY™**





Thank you
:)

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