# **Crop Manual - Amoroso RZ**

# Tips for plant raisers

# Grafting

For crops which are to be grafted our advice is not to sow before mid October. If sowing before mid October, the average fruit weight will remain too low, especially when extra stems are also retained too soon.

## **Temperature**

Make sure the temperature is adequate. This is very important. Speed has to be made when the plants are still with the plant raiser.

**Do not use** a lower temperature in order to get uniform shoots if grafting-topping.

Exact temperature set points depend on glasshouse type and facilities on the plant-raising nursery.

# Lighting

Do not use lighting too much in the early stages for grafted-topped plants; less light in the initial phase has a positive effect.

Each plant raiser has his own intensity and system as regards light. If using more light, maintain a higher temperature.

#### Rootstock

Grafting onto Big Power gives a good generative balance in the plant. Maxifort is less suitable as a rootstock for Amoroso as it gives the plant an even greater vegetative boost.

It is possible to grow Amoroso without grafting. The disadvantage of this is, though, that the thickness of the truss stem usually (but not on all nurseries) diminishes in September. Stamina of the plant also appears to be slightly reduced.

Our advice is to graft Amoroso, especially for a prolonged crop. Using grafted plants means you can really get everything out of a crop. It also promotes homogeneity of the product.

If the first truss is retained in a grafted-topped plant, the product will be less homogeneous.

Starting at 75 cm with a grafted-topped plant is not ideal for Amoroso; 4 heads on one rootstock gives less vigour.

Our advice, therefore, is to retain no more than 3 stems per rootstock.

### **Tips for growers**

#### Controlling phase

We advise saturating the slab with an EC of 3.5mS/cm.

The usual saturation/start-up schedule may be used.

Do not retain too many fruits early on and create speed. If the first truss flowers before Christmas or the flowers are poor on a thin plant, the first truss should preferably be removed. If the first truss is kept, prune it at 6 fruits maximum.

Use a normal temperature regime during the controlling phase; do not use water too much as a means of controlling the crop.

## On the slab

Amoroso may be placed on the slab, as usual, when the first truss is fully-flowering. If the plants have been topped at the second or third leaf, put the sideshoots of the same axil in the same direction when placing the plants on the slab. This promotes uniformity.

### Plant distance

When deciding on the plant distance it is important to ensure that the trusses will get enough light in December and January.

# Stem density

The correct stem density depends on the sowing date, type of glasshouse and starting distance. Usually you can have 3.8 stems/m2 (33 cm) if the glass measures 112.5 cm. **NB:** do not start too dense and do not have the stems too dense too soon. This is important for an early sufficiently high average fruit weight. Moreover, too soon too dense can also easily result in more vegetativity.

Our advice is the opposite of what a lot of growers do: initially retain 1 in 6 stems followed by 1 in 3. This will ensure that the crop will not be too dense too soon.

# Examples:

Start with 2.3 stems/m2; in week 4 increase to 2.7 stems/m2; in week 10 to 3.2 and in week 12 to final density.

Start with 2.5 stems/m2; in week 4 retain 1 in 6 stems, increasing to 2.9 stems/m2 and finally, in weeks 10 - 12, retain 1 in 3 stems, which should work out at 3.8 stems/m2.

Guideline: in a glasshouse with 10% less light, reduce the stem density by 10% and adjust the CO2 dosage accordingly.

#### Size

Aim to get the desired average fruit weight (min. 30 g) as quickly as possible. Ways and means to achieve this are:

Do not retain too many fruits early on.

Create spreed: adequate 24-hour temperature, a decent afternoon peak and a pre-midnight temperature decrease.

Do not sow too early.

Brace or scratch at least 7 - 8 trusses. If the truss is too thick or too short for bracing, scratch or use an elastic band instead or use a hook.

Remove leaves, preferably from the head. You can keep doing this throughout the year, depending on the stem density. If the leaves are short you could omit this from mid May to end July.

The average fruit weight should not rise too much (max. 40 g). This may be prevented by retaining enough stems per square metre in summer.

In grafted/topped plants you may leave the first truss, depending on the flowering date (from week 52 onwards). If left, this truss should be treated correctly: brace as soon as possible, which is quite soon in an Amoroso crop. Also remove the odd leaf.

The earlier the first flowering, the smaller the fruits, so the fewer the fruits to be retained.

# Target values

Vertical growth at least 20 cm/week. If there is too little vertical growth, the head will become too thick, the maturing period will be longer and the flowering speed lower.

Head thickness 12 mm maximum, preferably 11 mm.

Flowering speed 1 truss per week.

Fruit set from week 12 at least 35 fruits/m2/week.

# **Truss pruning**

Initially:

Start with 6 fruits, depending on the first truss and the growing system, until 1st February. Subsequently:

In grafted crops no more than 9 fruits per truss should preferably be retained.

In non-grafted crops with a shorter duration, 10 fruits may possibly be retained, depending on the requirements of the buyers.

# Watering and feed

EC in the water: on average 0.2 mS/cm above the norm.

EC in the slab: aim for 4.0 at least. Amoroso absorbs feed readily so dose higher than for Cedrico, for instance.

Amoroso uses about 10% more water than various other varieties at times of high transpiration, so water generously around midday.

The watering period is the same as for other varieties.

# Temperature strategy

Make sure the 24-hour temperature is adequate.

The day/night differential (the average night temperature) is at least 4°C; the difference between the pre-midnight temperature and the afternoon temperature may be double that.

Afternoon increase at midday.

Always a pre-midnight temperature decrease.

A higher night temperature in the early hours than is normally possible.

An increase for light of 2°C; at a later stage of the crop this afternoon increase may be less.

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# Example:

## Start of the crop

24-hour temperature approx. 21°C, depending on the light.

Pre-midnight 18°C, night 20°C, morning 20°C, afternoon 26°C +2 (do not take 26°C into the evening).

NB: Amoroso does not need/want a morning decrease! A quick whiff of cold when the screen is opened is not a problem.

### As soon as the truss is visible

24-hour temperature approx. (19.5 -) 20°C, depending on the light.

Pre-midnight 16.5°C, night 19 - 19.5°C, morning 19°C, afternoon 26°C +2. No extremely low pre-midnight; the afternoon temperature may be fairly high.

If light levels are extremely low, a lower 24-hour temperature may be maintained for a brief period.

### From fruit set on the first truss

Not too cool, maintain an adequate 24-hour temperature, based on the crop's condition.

24-hour temperature 19.5 - 20°C, depending on the light.

Pre-midnight 16.5°C, night 18.5 - 19.5°C, morning 18.5 - 19°C, afternoon 26°C +2.

If using a mobile screen, it is possible to have the pre-midnight lower and the night temperature higher.

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### Picking frequency

We advise picking twice a week especially in May, June and July, in connection with the risk of splitting. The minimum is 1.5 times a week in order to prevent split fruits. Also watch the supply forecast submitted: it has to be achieved!

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Cultural advice given by the seller is not binding. Descriptions and recommendations in this manual are as accurately as possible based on experiences in trials and practice. We do not, however, under any circumstances accept any liability for deviating results of the product grown in accordance with such information. The buyer needs to satisfy himself that this manual is suitable for his local conditions and the crop he intends to grow.