Improving tray plant production technology in Ireland

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Objectives

- Reason for doing this work
- Outline first year of work
- Some results
- Future trial work - 3 more years
Propagation-Ireland

- Ireland-season now from April-Nov
- Cold stored plants are needed for 60-day & protected cropping
- Vast majority of plants imported
- Plant quality problems!!
Propagation-Ireland
The future

- A number of new tray plant producers
- And also new bare-root producers
- Large capital investments
Project objectives-Yr 1

- Establish 1\textsuperscript{st} part of production protocol
- Nutrient requirements for ‘tray plants’
- Effect of time (date) of harvesting runners on subsequent plant quality
- Runner order
- Growing media
Materials and Methods

Mother plant nursery

- Project began glasshouse- January 2005
- Strawberry cultivar- Super Elite ‘Elsanta’ at 4 plants m$^2$
- 25 litre peat modules with drippers
- Fertigated with standard feed EC 1.8 dSm$^{-1}$
- Black mypex on ground
- Straw mulch and sprinklers
9-celled (Bato) Osmocote 1 kg m\(^{-3}\)
Electric leaf

90-100% humidity
25cm between rows
33 plants per m²
30th July: 21 days post tipping
15th November
Year 1 Preliminary Results
INFLORESCENCE

EXPANDED LEAF

LATERAL CROWN

AXILLARY DORMANT BUD

ANEXPANDEND LEAF

RUNNER

LATENT BUD (WITH DEAD LEAF)

(Savini 2002)
Flowering stage of primary flower (main and lateral crowns)

Time 1

Flowering Stage

Lateral crown (avg)

Main crown

1-1

1-2

1-3

Lateral crown (avg)
Flowering stage of primary flower (main and lateral crowns)
Time 2
Number of flowers in apical cluster
Time 1 and 2

<table>
<thead>
<tr>
<th>Number</th>
<th>Number of flowers in apical cluster</th>
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<tbody>
<tr>
<td>8</td>
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<tr>
<td>9</td>
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<td>10</td>
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<td>1 2</td>
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Position of lateral crowns along the main crown axis

Time 1 and 2

basal position = 0

Position

date
Early Conclusions

- Architecture of flower very useful method to determine quality of plant material

- Fruit data to come: yield, fruit quality etc.

- Next year(s): adjust timing of taking tips, nutrition and indoor V outdoor plants