Product: Eucalyptus flowers, Gum blossom

Botanical name: Corymbia ficifolia hybrids
(syn. Eucalyptus ficifolia hybrids)

Cultivar: ‘Summer Beauty’
Flowering gum blossom is a relative newcomer to floristry as a seasonal focal flower. Stunning new selections, mainly hybrids in the ‘Summer Beauty’ group, have driven popularity. These produce dense terminal masses of very large blossoms in many colours, from cream through pink to red, orange and deep crimson. Prominent yellow or gold stamens provide an attractive contrast.

The large buds are very decorative, and watching the caps lifting and the blossom unfurling adds to product appeal. This process happens very quickly, so growers need to pick twice a day during peak flowering to ensure that the marketed product is at the correct maturity for maximum vase life. This is achieved by ensuring good hydration of the flowering stems before harvest (irrigate the tree the night before harvesting) and during the postharvest chain.

Harvest flowering stems with care. Avoid short, thick stems and those with unbalanced branches. Retain some leaves below the cut to provide future flowering branches.

Gum blossom is not generally exported, because of its delicate form and short vase life. Corymbia ficifolia (formerly Eucalyptus ficifolia) and hybrids of C. ficifolia, C. ptychocarpa (a tropical species) and possibly other species provide most of the flowering gum sold on the domestic market as feature bud and flower products. C. ficifolia is native to a small coastal area of WA. One of the most cultivated gums, it is best suited to temperate climates with low rainfall and humidity. In suitable climates it is a moderately fast growing tree but is susceptible to severe frost. Trees typically grow to 5 m but should be pruned after flowering to maximise good flowering stems in the following season.

Superior selections and hybrids are grafted onto a rootstock to guarantee plant performance (the cultivars are not hardy on their own roots, especially in SE Australia) and product uniformity. Nurseries have selected a range of rootstocks to suit production in a variety of climates and soil types. Grafted plants of proven cut-flower cultivars such as ‘Dwarf Orange’, ‘Summer Beauty’, ‘Summer Red’, ‘Summer Glory’, ‘Orange Splendour’, ‘Summer Snow’, Watermelon’, Apricot Dawn’ and ‘Scarlet’ should be used to establish plantations. Some have Plant Breeders’ Rights registration, including ‘Summer Beauty’, ‘Summer Red’, ‘Summer Glory’, ‘Summer Snow’, and ‘Jessica’s Jewel’.

There is limited information on cultivating blossom species owing to their short history of commercial development.

Eucalypts are attacked by a range of insect pests, including leaf miners, a wide range of chewing insects and gall wasps. Various fungal diseases can also disfigure the leaves and buds. These problems must be managed during the growing season to minimise unsightly damage. The flowering stems produce lots of nectar, attracting many insects, including various beetles. Nectar-feeding birds can also cause considerable damage and chew off entire flowering branches.

Poorly handled product can have a vase life of as little as one day. It is critical to keep the stems well hydrated, remembering that the thick woody stems drink a lot of water. Flowering gum blossom opens quickly, so it should reach the end customer as soon as possible after harvest. Flowers that open post harvest and in low light may be paler in colour.

Flowering season: Late November to February. There may be smaller flushes at other times during the year.

Typical vase life: 5 days.

Other products to which this specification can be generally applied: other species and varieties of flowering eucalypts.

▲ Other colours are available, e.g. ‘Summer Red’.
Product: Flowering eucalyptus, Gum blossom

STAGES OF OPENING

The stages shown apply to the product at market entry. Pay attention to the weather, time of year, and mode and duration of transport, because the flowers will continue to open during transport. You must consult with your target market to ensure that the flowers arrive at the desired stage.

Stage 1
Immature stage, unacceptable to markets: buds still tightly closed, pointed and green

Stage 2
Ideal stage to market: all buds closed, but most rounded and showing colour, with caps lifting on about 30%

COMMON DEFECTS

Common defects to avoid at market entry:
- Diseased or damaged leaves or flowers
- Overmature flowers
- Flower drop
- Wilting
- Awkwardly branching or curved flowering stems

Shrivelled buds on stem due to damaged flower stalks – remove before marketing

Very curved stem – discard

Awkwardly branched stems like this are hard for florists to use

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Flower stalks broken by birds – trim before marketing

Unsightly blemish at base of flower – avoid by applying appropriate preharvest fungicide treatments

Overmature stem – do not market

Wilted buds – do not harvest
Stage 3
Later stage to market: around 30% of individual flowers open and 50% of caps lifting

Stage 4
Late mature stage, suitable for immediate end use but unaccepted by many markets: most flowers fully open and few buds

Stage 5
Very overmature stage: all flowers open and ageing, and some have shed all stamens

- Damaged foliage due to insect feeding – avoid by applying appropriate preharvest insecticide treatments
- Damaged foliage due to Christmas beetle attack – remove before marketing; avoid by applying appropriate preharvest insecticide treatments
- Insect galls disfiguring leaves – avoid by applying appropriate preharvest insecticide treatments
- Fungal leaf spots – discard affected stems
- Mechanical damage to leaves – trim before marketing

Typical bunches look like this
**FLOWERS**

**Appearance**
Well coloured and typical of the cultivar. Flower clusters dense, fully formed and at final size. Size of clusters on stem (diameter) must be proportional to stem length.

**When to harvest**
5% (1–2 flowers open per stem) to 30% of individual flowers open with the stamens pointing straight out (once stamens unfurl, the flower is becoming overmature and stamens will drop). 50% of caps covering the closed flowers are lifting (‘popping’); rest still tight.

**Damage**
No deformed or damaged flowers.
No awkward branching of flower masses.

**Contamination**
Product free of grit and soil, weeds or weed seeds, living or dead insects, and signs of insects or spiders, such as webbing.

**Pests and diseases**
No apparent pest or disease damage. Discard any poor-quality product or stems with insects or fungal infections.

**LEAVES**

**Appearance**
Fresh green and crisp; not dull or wilted. Minimum discoloration (<2% by area and affecting <10% of leaves); no yellowing.

**At harvest**
Remove leaves from the lower 10–15 cm, or \( \frac{1}{3}\), of the stem.

**Damage**
Minimum evidence of pests, disease or other blemishes, such as mechanical damage (<5%). Minimum foliage discoloration (<10% by area). Leaves entire (no insect feeding damage). No spiders or spider webs. Free of visible chemical residues.

**STEMS**

**Appearance**
Rigid and strong enough to support blooms without being too heavy and bulky. Good leaf coverage and presentation. Bend <15°. Free of disfiguring trim marks or other blemishes. Neatly cut end.

**Length**
According to market demand.

**RECOMMENDED HANDLING AT HARVEST**
Minimise drying out and exposure to heat – pick when it is cool, preferably straight into buckets of clean potable water containing a registered biocide or a special hydrating solution, and hold in the shade. Some varieties are more prone to wilting than others, so you may need to adapt this advice to suit. Move cut stems promptly to a cool, shaded packing area and cool quickly.

**GRADING AND BUNCHING**

**Grading**
Reject any contaminated stems. Sort stems according to flower maturity, length and thickness: flower mass proportional to stem length. Market smaller flower masses on shorter stems.

**Bunching**
The number of stems per bunch varies, and is determined by their size, stem diameter, and market and buyer requirements. A typical bunch has 3–5 stems, but varies with stem length and volume of flowers on the stems. Two ties are required.

<table>
<thead>
<tr>
<th>Stems per bunch</th>
<th>Stem length</th>
<th>No. of stems per bunch</th>
<th>Grade (domestic market)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Single stem</td>
<td>1 m +</td>
<td>2–3</td>
<td>Extra large</td>
</tr>
<tr>
<td></td>
<td>90–100 cm</td>
<td>2–3</td>
<td>Large</td>
</tr>
<tr>
<td></td>
<td>80 cm</td>
<td>2–3</td>
<td>Large</td>
</tr>
<tr>
<td></td>
<td>70 cm</td>
<td>3–4</td>
<td>Medium large</td>
</tr>
<tr>
<td></td>
<td>60 cm</td>
<td>4–5</td>
<td>Medium large</td>
</tr>
<tr>
<td></td>
<td>45–50 cm</td>
<td>5</td>
<td>Medium</td>
</tr>
</tbody>
</table>

**Sleeves**
Sleeves are not mandatory but may benefit some varieties and markets.

*Product: Flowering eucalyptus, Gum blossom*

*Stems of Eucalyptus species (which are related to Corymbia) featuring buds and nuts are also marketed.*
**HOLDING AND STORAGE**

**Cooling**

Effective cooling soon after harvest is important to retaining quality and maximising vase life. The preferred option is:

- Cool, process, cool – for example, remove field heat by cooling flowers immediately on entry into shed to 10°C in buckets of solution, process flowers (bunch, grade), and then cool to 2–4°C by either forced-air cooling (if boxed) or holding overnight in a cool room in postharvest solution.

Forced-air cooling of packed flowers is ideal for large volumes of product.

**Temperature and humidity**

Hold in a high-humidity cool room (95%) at 2–4°C. Another way of achieving high humidity is to cover the flowers with plastic sheeting.

**Postharvest solutions**

Use clean potable water. Postharvest solution: Hold in clean potable water with an added registered biocide:

- Avoid sugar, as this stimulates flower opening and nectar production, which can lead to problems with botrytis. Don’t use regular commercial postharvest solutions, because they contain sugar.

To increase water uptake and improve hydration it may be worth holding the stems in deep water (e.g. 20 cm) or using special hydrating solutions (see *Postharvest Manual* for details).

Holding solution: Same as postharvest solution.

**Longer-term storage**

This product should not be stored.

**PACKAGING**

Pack only dry, cold flowers.

Pack with flower heads at each end of the box and stems in the middle to avoid damaging blooms.

Handle carefully to avoid damage, particularly if flowers are open.

Avoid packing too many stems per box.

Stems in each box should be approximately the same diameter and length, and flower head size should be consistent.

If shipping bunches, pack them firmly so the product will not move and be damaged.

To minimise water loss, line boxes with plastic film. If the flowers will need forced-air cooling, line only the long sides, tops and bases of the boxes, not the ends.

Use boxes with holes to allow forced-air cooling.

Cool flowers to 2–4°C before transport.

**LABELLING AND DOCUMENTATION**

Label boxes or buckets as recommended in *Postharvest Manual* or as required by customer.

Ensure that box contents are exactly the same as specified in the documentation and on the end of the box.

**TRANSPORT**

Refrigerated vehicle at 2–4°C for long-distance transport.

**COMMON POSTHARVEST PROBLEMS**

Refer to *Postharvest Manual* for general advice.

**Fungal decay in storage due to botrytis (grey mould)**

Use preharvest fungicide sprays during wet weather to reduce the risk of botrytis.

Use preharvest insecticide sprays to reduce the pest population at harvest.

**Insects**

The sensitivity of eucalyptus flowers to ethylene is not clear. One report states that ethylene caused stamens to drop.

**Ethylene sensitivity**

**Messages for importers and wholesalers**

- Recut stems and place into fresh water containing a registered biocide (avoid sugar: be aware that many commercial postharvest solutions and flower foods contain sugar).

- To increase water uptake and improve hydration it may be worth holding the stems in deep water (e.g. 20 cm) or using special hydrating solutions (see *Postharvest Manual* for details).

- Cool product before marketing or sending on and keep it cool (2–4 °C).

- Maintain good hygiene and keep containers clean.

**Messages for retailers**

- Recut stems and place into fresh water containing cut-flower food or a registered biocide.

- Use clean buckets and containers for displays.

- Do not display flowers in areas that are exposed to full sun, draughts, high temperatures or vehicle exhausts, and preferably do not display near fruit and vegetables. Use refrigerated displays if possible.

- Tell the customer how to care for the flowers and emphasise the need for cut-flower food in solutions. Give the customer a sachet of cut-flower food to take home.

**Messages for consumers**

- Keep vase filled with the correct solution of cut-flower food. Check daily, as flowers can use a lot of water. If cut-flower food is not used, change the water at least every second day. Always use clean vases and clean water.

- Do not display in areas that are exposed to full sun, draughts or high temperatures. Keep as cool as possible without freezing.

- Discard other flower types in the same vase when they reach the end of their vase life.