Product: Scarlet Banksia
Botanical name: *Banksia coccinea*
**Banksia coccinea** has short, cylindrical flower heads, vivid red to orange.

Some yellow forms are also known. Each flower head is composed of hundreds of tiny individual flowers or florets, which are arranged in parallel vertical columns producing a striped appearance.

Each floret has a red wiry style, which is still tightly looped at the optimum marketing stage. As the florets mature, the style flicks open and points outwards to create a brush-like effect. Oval, stiff green leaves with a serrated edge are tightly clustered up the stems. The lower leaf surface is greyish white.

The most desired flower head is a tall cylinder with height about one and a half times width. Some selections have a smaller, domed head.

As with other banksias, the number of open florets determines the correct picking stage for maximum vase life. The first florets to open are those at the base of the flower head.

The flower head is easily damaged, so careful handling and packing are important. Avoid picking and packing banksias when the flowers are wet as they can develop black streaks.

There is strong demand for this Banksia on export markets, and the compactness of the flower head provides a good pack-out.

*Banksia coccinea* originates from the south-western coast of WA. It is grown commercially mainly in WA and SA. In cultivation, it flowers later in SA than in WA, extending the season. Banksias are also grown commercially overseas, for example in the US states of California and Hawaii, as well as New Zealand and South Africa.

*Banksia coccinea* grows best in well drained, sandy soils. Frosts more severe than −4 °C can distort and blacken florets, rendering the flower head unmarketable.

Prune at or immediately after harvest, because new flower buds are initiated at this time; left unpruned, bushes become too tall to manage. Research has shown that most flowers are produced on shoots that are 2 years old and of a minimum diameter. So, in pruning, keep shoots with a stem diameter of 4.5 mm or more, and leave 4–5 healthy leaves below the cut, from which new shoots can grow to produce future flowers. Remove any thin and weak stems, which are less likely to flower.

*Banksia coccinea* is susceptible to attack by two particular insect pests, which can cause significant losses of marketable stems. Feeding by larvae of the *Banksia* gall midge produces white galls on the lower leaf surface. The *Banksia* boring moth can damage developing flower heads and needs to be actively controlled to minimise unmarketable flowers.

In addition, the flower heads attract insects and need to be disinfested before harvest. Like other banksias, *B. coccinea* is susceptible to *Phytophthora* root rot, and is also susceptible to a fungal stem canker disease.

*Banksia coccinea* flowers should have no more than 20% of the individual flowers open (the rest are still ‘looped’) when they reach the end customer.

Very old flowers are dull and brownish and should not be marketed.

**Flowering season:**
May to November. Peak flowering is in August and September.

**Typical vase life:**
10–15 days

**Other products to which this specification can be generally applied:**
*B. coccinea* seedlings and named cultivars such as ‘Waite Crimson’ and ‘Waite Flame’. Yellow forms are also available.
**Product: Scarlet Banksia**

### 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 – flower head soft; has not reached full size and shape; red styles still tightly closed and not prominently displayed: unacceptable to markets.

**Stage 2**
Early harvest stage – top of flower head firm and round, and <20% of florets open: suitable for export and some domestic markets.

### Common Defects

Common defects to be avoided at market entry:

- Deformed or asymmetrical flower heads
- Damaged flower heads
- Blackened, dried, yellowed or physically damaged leaves
- Dried-out, dull or faded flower heads
- Immature flower heads
- Insect damage
- Fungal disease
- Overmature flowers

- Flower overmature and dried out – do not market
- Damaged stem and poor flower – discard
- Damage caused by Banksia boring moth – discard
- Frost damage at bud stage – discard
Stage 3
Mid stage – 30% of florets open: suitable for domestic markets

Stage 4
Late stage – 50% of florets open: acceptable to only some markets

Stage 5
Overmature stage – >75% of florets open; flower head a less attractive brownish colour: unacceptable to many markets

Deformed flower head – discard
Flower head offset at an angle from stem – discard
Dark, swollen floral parts – unmarketable
Uneven opening of florets on flower head – discard

Leaf galls caused by Banksia gall midge – discard
Poor leaf quality due to nutritional problem – discard
Bypass growth – trim when small
Sooty mould on lower leaf surface – discard
FLOWERS

**Appearance**
- Flowers clear red (or true to type for selections), not dull or brownish.
- Flower head fully formed, firm to touch; and at final size, symmetrical and striped in appearance.
- Flower head typically cylindrical, with height 1½ times width.
- Size (diameter) and length must be proportional to stem length.
- Flower head follows in a straight line from the stem (and is not offset from the stem at more than 30°).

**When to harvest**
- Flower head fully formed and no florets open (styles still looped) (export), or <20% of individual florets opened (domestic market).
- Avoid harvesting when flower is wet.

**Damage**
- No asymmetrical, deformed or damaged blooms.
- Ensure columns of florets form straight lines or stripes up the flower head.
- No bypass shoots at the base of the flower head.

**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**
- Greyish green and crisp, not dull or wilted.
- Minimum discolouration (<2% by area and affecting <10% of leaves); no yellowing; no leaf galls.

**At harvest**
- Remove leaves from the lower 15–20 cm of the stem, or as buyer requests.

**Damage**
- Minimum evidence of pests, disease or other blemishes, such as mechanical damage.
- 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.
- Bend <30°.
- 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, and hold in the shade.

Move cut stems promptly to a cool, shaded packing area.

GRADING AND BUNCHING

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

**Bunching**
- This Banksia is usually sold as single stems.

**Stem length**

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HOLDING AND STORAGE

**Cooling**
- Effective cooling soon after harvest is important to retaining quality and maximising vase life. There are two options:
  - 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.
  - Process within 1 hour of cutting, and then cool to 2–4 °C by either forced-air cooling for 20–30 minutes (if boxed) or holding overnight in a cool room in postharvest solution (if in buckets).
- Forced-air cooling of packed flowers is ideal for large volumes of product.

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**HOLDING AND STORAGE con’td**

**Temperature and humidity**
Hold in a high-humidity cool room (95%) at 2–4 °C for up to 4 days.
Another way of achieving high humidity is to cover the flowers with plastic sleeves or plastic sheeting.

**Postharvest solutions**
Postharvest solution: Hold in clean potable water with an added registered biocide.
To date, banksias have not responded to floral preservatives. Sucrose pulsing does not improve quality or vase life (sucrose concentrations above 2% are detrimental).
To increase water uptake and improve hydration it may be worth holding the stems in deep water (e.g. 20 cm) or in special hydrating solutions (see *Postharvest Manual* for details).
Holding solution: Same as postharvest solution.

**Longer-term storage**
Flowers have been stored dry and well wrapped in boxes at 0 to 2 °C for up to 2 weeks without significant loss of vase life.
For longer storage seek professional advice and test in the market before committing product.

**PACKAGING**
Pack only dry, cold flowers.
Banksias are heavy, so ensure the box used is strong enough.
Handle carefully to avoid damage, particularly if florets are open.
Pack with flower heads at each end of the box and stems in the middle to avoid damaging blooms.
Avoid packing too many stems per box.
Especially for export, stems in each box should be approximately the same diameter and length, and flower head size should be consistent.
Use boxes with holes to allow forced-air cooling and to facilitate fumigation. If the flowers will need forced-air cooling or fumigation, line only the long sides, tops and bases of the boxes, not the ends.
Minimise water loss, especially for long-distance shipping, by lining boxes with plastic.
Cool flowers to 2–4 °C before transport.

**LABELLING AND DOCUMENTATION**
Label boxes and buckets as recommended in *Postharvest Manual* or as required by customer.
Ensure 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.

**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 disease.
Use preharvest insecticide sprays to reduce the pest population at harvest.
Fumigate flowers with a registered product before dispatch to kill insects. Check flower heads for insects before packing (insects such as bees may be trapped in the flower head).
Avoid postharvest dips if any florets are open.

**Insects (for export)**
Recut stems and place into fresh water containing a registered biocide.
To increase water uptake and improve hydration it may be worth holding the stems in deep water (e.g. 20 cm) or in 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.

**Ethylene sensitivity**
Banksia coccinea does not appear to be susceptible to ethylene.

**Messages for importers and wholesalers**
- Recut stems and place into fresh water containing a registered biocide.
- To increase water uptake and improve hydration it may be worth holding the stems in deep water (e.g. 20 cm) or in 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 a registered biocide.
- Do not mist the flowers.
- 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 fresh clean water and clean vases.

**Messages for consumers**
- Keep vase filled with fresh clean water. Check daily, as flowers can use a lot of water. 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.