Bessera elegans - New Crop Summary & Recommendations

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Series: New Floricultural Crops: Formulation of Production Schedules for Wild, Non-domesticated Species

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**Taxonomy:**

*Bessera elegans* is an herbaceous perennial bulb of the family Alliaceae. This flowering plant is cold hardy to the USDA zones 8-11. Only one known common name for this species, which is Coral Drops, so given by the coral red umbels that are produced (Dave’s Garden).

**Geographic Distribution:**

*Bessera elegans* is a native plant to the Southern United States (largely Texas) and Mexico (Brent and Becky’s Bulbs). There is little to no research conducted on this particular species, but distribution through Mexico and Texas indicate that it prefers a desert environment. Tendencies to naturalize or become invasive are unknown, but naturalization and invasiveness would not occur above Zone 8, as this plant does not tolerate frost stress (Fitzpatrick 2011).

**Native Habitat:**

As mentioned above, *Bessera elegans* is typically found in desert-like settings. It grows well under full-sun conditions with well-drained media/soil, and can tolerate pH conditions from 6.1-7.8 (Dave’s Garden).

**Taxonomic Description:**

*Bessera elegans* is an 18-24” bulbous plant that has simple, linear leaves at the base of the plant. Flowers originate of umbels and can have up to 30 flowers from a single plant. The underground storage organ is more accurately described as a corm instead of a bulb. The height this plant achieves arises solely from the wiry stems of the flowers; otherwise it is a very low growing plant (Edensbloom.com). The flower that is produced is a vibrant Coral Red color, and
each of the 6 petals has a stripe down the middle of the petal. Color of the stripe can either be a
darker red or in some pictures appears to be white. The flower has 6 anthers and one very
peculiar purple stigma. *Bessera elegans* is a summer flowering plant, often flowering from July
to August (Grey-Wilson 1998). There are no known medicinal or other uses for this plant.

**Name and Description of Varieties/Cultivars on the Market:**

*Bessera elegans* has no known cultivars in production. However, pictures on the Pacific
Bulb Society’s website show a purple colored variety that is unnamed. A light violet-lavender
color with stunning blue pollen on the anthers. Additionally, this variety has two white streaks on
the petals where Coral Drops has one stripe down the middle of the petal (Pacific Bulb Society).

**Propagation Methods:**

*Bessera elegans* can be propagated via seed or vegetatively via the corms. My personal
recommendation would be to vegetatively propagate this plant, as my experiment to propagate
from seed failed spectacularly. Out of 70 seeds sown only 10 germinated, and even then all 10
germinated seedlings failed to shed the seed capsule and open the cotyledons. No seed specific
sowing instructions are available for this species.

As for vegetative propagation, Dave’s Garden recommends dividing the corms/bulbs. No
further information has been found. Perhaps place under mist conditions until roots develop.

**Product Specifications:**

An ideal marketable phenotype for *Bessera elegans* would closely resemble the natural
form, which would be a plant that reaches about 18-24” with its flower stalks.

**Market Niche:**

A target sales date for Coral Drops could be around mid-late June. The foliage of this
plant isn’t impressive, but as it flower’s around July, this plant has potential to be used in 4th of
July celebrations. The flowers resemble fireworks in both color and form. *Bessera elegans* does not have much potential for the cut flower market, as the flowers are rather small in size, but could perhaps be used to accent bouquets. This crop should be targeted at plant collectors given its rare nature.

*Bessera elegans* does not have much potential to be a major horticultural crop, mainly due to the little interest the average homeowner has towards this plant. It is generally considered sensitive, as it requires regular watering but does not tolerate over-watering (Dave’s Garden). Additionally, issues with seed propagation make wide-spread cultivation of this specimen difficult.

Outside of plant collectors/enthusiasts, *Bessera elegans* has some potential for the indoor container plant market. With proper education and marketing some interest could be stirred.

**Anticipated Cultural Requirements:**

*Bessera elegans* is hardy to zones 8-11, prefers semi-droughty conditions, and full sun. It does best in conditions that do not reach frost-formation temperatures and can handle significant heat (Fitzpatrick 2011). It requires about 3-6” of spacing between other plants and can handle pH ranges from 6.1-7.8, given a well-drained medium. For production, corms should be placed into a 6” pot for the entirety of production. Corms need to be stored dry and frost-free for winter, but can stay in their containers until spring given the initial conditions. However, the corms should be repotted annually in March (Grey-Wilson).

**Production Schedule:**

As mentioned above, corms should be (re)potted in March, directly into the containers they are intended to be sold in. Given the incredible lack of information on this plant, no
recommendations of PGR and fertilizer applications will be made. Watering should be regular (as needed) and special care needs to be taken to avoid over watering as root rots may ensue.

From potting to flowering, there is an estimated 16-week (4 month) production schedule, based on the July-August flowering, and assuming flowering date is the target sales date for the 4th of July holiday (Grey-Wilson 1998). It is unknown if this product is feasible for large scale production.

Considering the massive failure of my crop production of this plant, I can only offer insight to production based on what I would do for next time, and on what I believe to have led to my crop failure. Firstly, if I sowed seed again, I would sow into a larger plug size. A 288-plug tray could have become a very serious problem if the seedlings germinated and reached the transplanting stage, given the tuberous root system. Secondly, I would not place the seeds into the mist-house for germination. As this plant is a desert species, prolonged exposure to excessive moisture could lead to damping-off as this is typically not a natural occurrence in the natural range.

**Needs Assessment for Genetic Improvement:**

An area for genetic improvement that may prove beneficial is tolerance to water-stress. Overwatering is an issue I foresee the average homeowner having with a plant that does not tolerate “wet feet.” Also, genetic improvement to raise the germination percentage of seed may help this plant infiltrate the industry.
Works Cited:

Brent and Becky’s Bulbs. Website.  
<https://store.brentandbeckysbulbs.com/summer/productview/?sku=57-10>.


*Due to the lack of information on this plant, I resorted to using online catalogs and blogs to fill in the detail the Journals could not provide.