

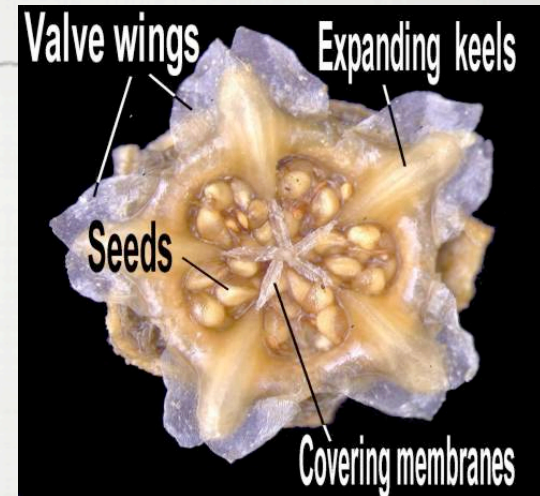


New Crop Species:
Delosperma floribunda 'Stardust'

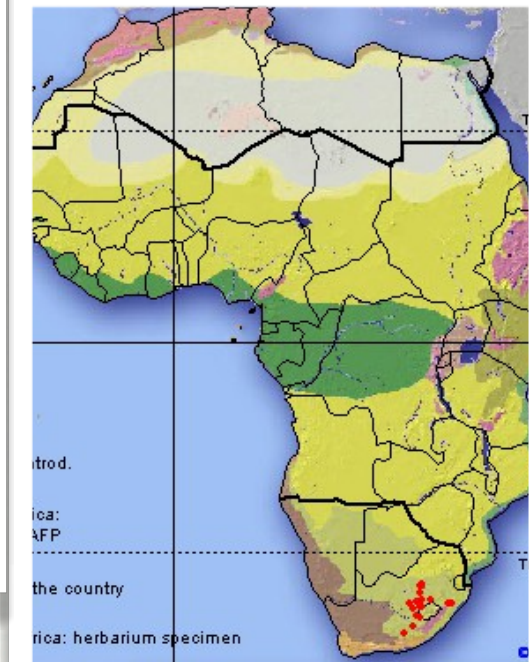
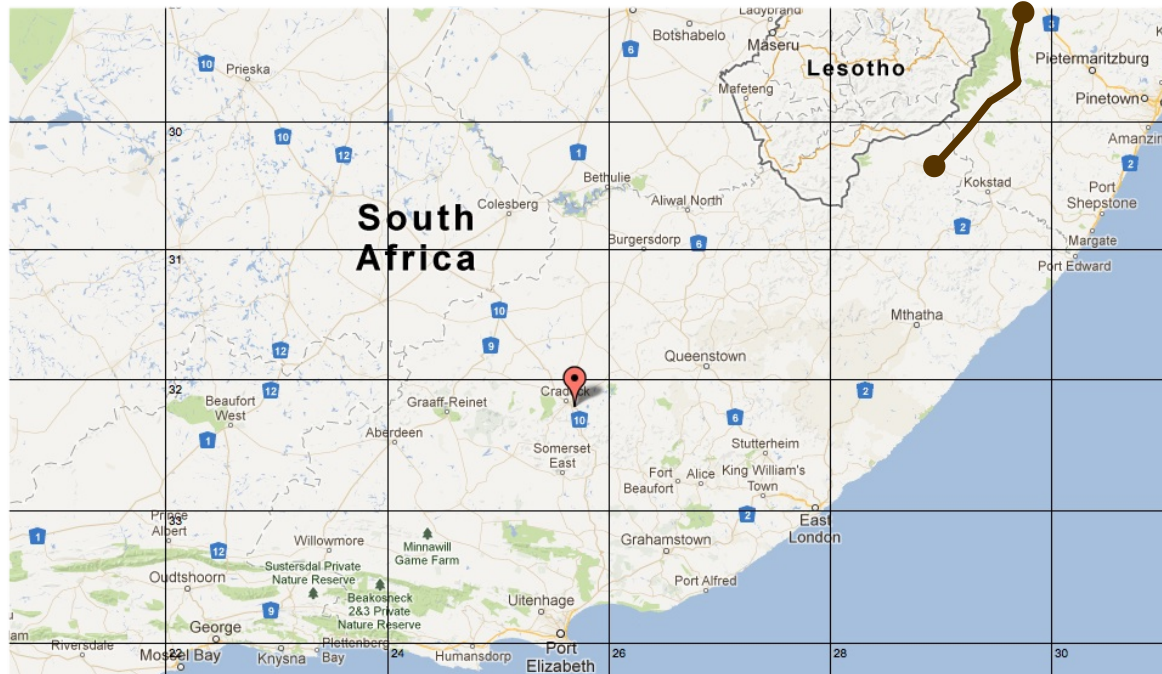
By Heather Drake

Taxonomy: whats in a name?

- ❑ *Delosperma floribunda* 'stardust'
- ❑ Delos =visible, Sperma = seed
- ❑ Floribunda = A plant that bears many seeds
- ❑ Seed capsules which have no covering membranes, thus exposing the seed once the capsules are open - open by hygrochasy - expel seeds when they open based on moisture content
- ❑ Azioaceae family, formerly known as the Mesembryanthemaceae family (Mesembs)
 - ❑ 135 genera
 - ❑ Mostly native to southern Africa
 - ❑ known for their succulent evergreen leaves and distinct flowering habit
 - ❑ *Delosperma* is the only genus in the family that is Self-fertile
 - ❑ Common Name: Ice plant due to calcium crystals that build up on their leaf surfaces resembling the appearance of ice
 - ❑ appears as though *Delosperma floribunda* 'Stardust' is a cultivar derived from the native species *Delosperma floribundum* (Tropicos website database).



GEOGRAPHIC DISTRIBUTION



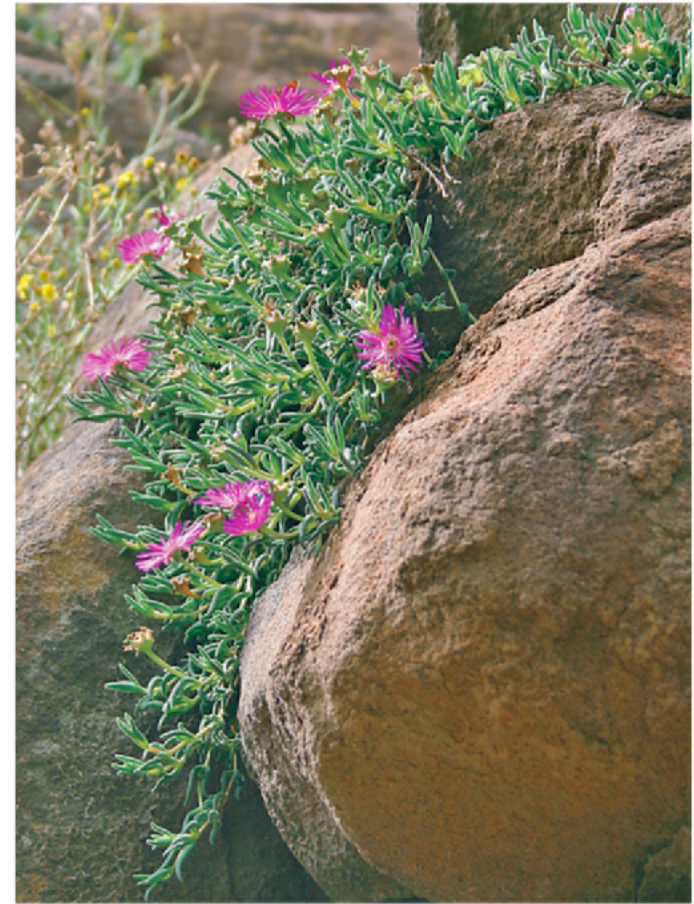
ORIGIN OF *D. FLORIBUNDUM* NEAR DRAKENSBERG MOUNTAINS



Native Habitat

- ROCKY MARGINS OF GRASSLAND
- DISTURBED SANDY STIES
- VERY DRY CONDITIONS
- TEMPS WERE VERY COLD IN MOUNTAINS, MAKE THEM COLD WEATHER TOLERANT
- ALMOST ALL HABITATS FROM SEASHORE TO FOREST ARE COLONIZED
- ALTITUDE VARIES FROM SEA LEVEL TO THE HIGHEST MOUNTAIN PEAKS
- ADAPTATIONS BY MEMBERS OF THIS GENUS INCLUDE:
 - LEAF SUCCULENCE, WHICH HELPS TO RETAIN WATER IN TIMES OF DROUGHT.
 - THICK ROOTS ARE FOUND IN SPECIES THAT INHABIT AREAS FREQUENTLY BURNED, ENABLING THEM TO SURVIVE FIRE.
- PREDOMINANTLY GRASSLAND GENUS, BUT CAN'T OUTCOMPETE TALL GRASSES, SO STAYS IN ROCKY MARGINS

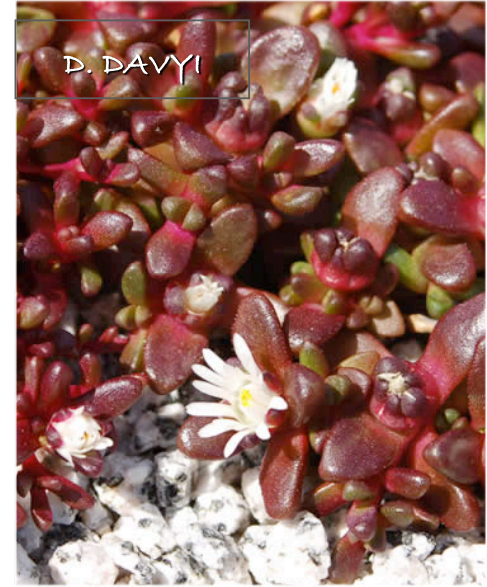
Native Habitat



Major Introductions

- A little over a decade ago, this plant was virtually unknown to North American gardeners
- Their introduction to western gardeners was primarily due to Panayoti Kelaidis, a world-renowned gardener, lecturer and plant collector. at Denver Botanic Garden
- Panayoti made a plant exploration trip to the Drakensberg Mountains of South Africa in 1994, looking for new plants that might prove hardy for Xeriscaping
- *Delosperma cooperi* and *D. nubigenum* were the first two hardy *Delosperma* introduced by Panayoti, species that could survive to zone 4
- A couple of years later he returned to South Africa and introduced two more species, *D. floribundum* and *D. herbeum*.
- In honor of his discoveries, a spontaneous hybrid *Delosperma* that arose in the Denver Botanic Garden collection in 1998 was given the cultivar name 'Kelaidis' (known under the trade name 'Mesa Verde').

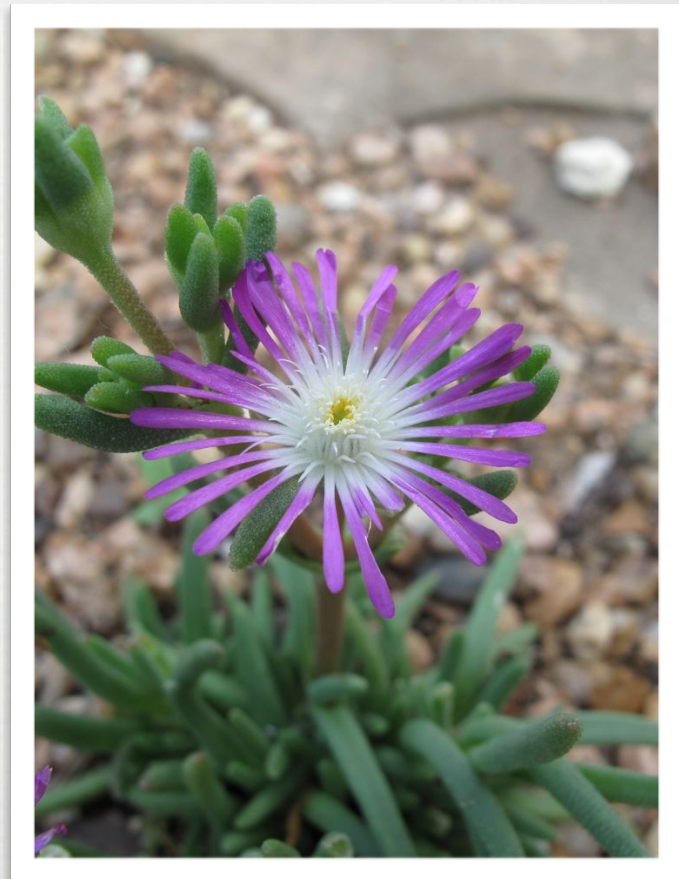




OTHER SPECIES

Taxonomic Description

- ❑ Plant habit: spreading so great for beds, borders, containers, and as a groundcover
- ❑ Height: 2-6 inches (5-15 cm)
- ❑ Spread: 8 - 12 Inches (20 - 30cm)
- ❑ Root system: fibrous and very tolerant of almost all soil types, creeping habit
- ❑ Leaves: Succulent, Silvery green in color with a waxy coating, almost white coating - “Ice” plant
- ❑ Flowers - lilac purple in color, Flowers terminal or axillary, solitary or in cyme, These blooms are about 2 inches wide, with masses of tightly-packed, matchstick-thin violet petals surrounding a large white center.
- ❑ Bloom Season: Late Spring through early fall
- ❑ Other: Attracts pollinators, Green roof planting, extremely drought tolerant
- ❑ Indigenous uses: used as magical plants to give those in possession of them powers to know in advance what their enemies are planning
- ❑ [D. saturatum](#). Zulu warriors going to war would grind up the dried plants, adding them to the water with which they washed their bodies and their weapons



'SEQUINS': BALL HORT

Delosperma floribundum sequins



[View Larger](#)

Scientific Name : Delosperma floribundum

Common Name : Ice Plant

Hardiness Degree : 20°F (-6.7°C)

Blooming Season : Summer

Plant Habit : Spreading

Spacing : 18 - 24" (46 - 61cm)

Height : 2 - 6" (5 - 15cm)

Width : 8 - 12" (20 - 30cm)

Exposure : Sun

Grower Information : A Darwin Perennials Introduction. A low-growing succulent, this variety features striking purple and white bicolor blooms. Performs well in even the hottest and driest areas.

Daylength : Delosperma will bloom naturally as days lengthen and temperatures begin to rise in late Spring.

Propagation Information : Reduce and then eliminate mist as soon as possible.

Cold Treatment :

Plant Maturity: Cold treatment is not required.

Plant Growth Regulators : Generally not needed. (Flowering Only License) 'Balosquin'

Marketing Information

Benchcard:

[Download a benchcard](#)



Common Name: delosperma

Type: Herbaceous perennial

Family: Aizoaceae

Zone: 6 to 8

Height: 0 to 0.25 feet

Spread: 0.75 to 1.5 feet

Bloom Time: May to September

Bloom Color: Purple

Bloom Description: Lilac-purple with white center

Sun: Full sun

Water: Dry to medium

Maintenance: Medium



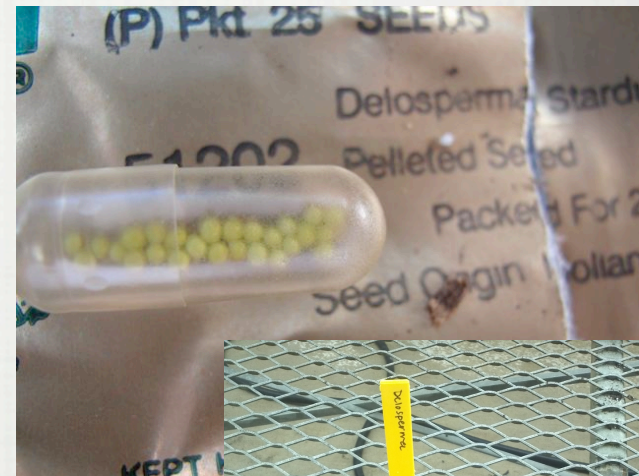
★★★★☆, [See Comments](#)

'STARBURST'

SIMILAR CULTIVARS ON THE MARKET

Propagation Methods

- All commercial propagation was by Veg cuttings so no detailed information little info on seed
- Roots in 3-4 weeks from cuttings and best when kept at 70 degrees
- Seed from Thompson and Morgan UK
- Seeds lived up to their name - Dust!
- light for germination
- 10-21 days to germ
- First attempt Week 11 (March 10) = no germination!
- Second attempt: Week 12(March 23) = great Germ - no germ counts due to dust like seed
- Planted into Germ mix and Vermiculite
- First improvement - Pelletized seed?!



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17 DAYS TO GERM(WK 14) AND BY WEEK 16 - COTYLEDONS AND FIRST
TRUE LEAVES

Cultural Requirements

- ❑ Winter and Heat hardy
- ❑ Temp - not essential for flowering but for rooting (70 degrees)
- ❑ Once cuttings rooted - it takes 5-7 weeks to finishing
- ❑ Light Duration - as days get longer, flowering increases
- ❑ Tolerant of most soil types
- ❑ Resistance: Disease Resistant, Drought Tolerant, Heat Tolerant, Pest Resistant
- ❑ Container - start in a 288 to 128 plug tray - best to let it grow into container
- ❑ Once large enough to handle transplant to a 3-4 inch container until ready for sale



WEEK 17

Production schedule

- Total production time: 14-18 weeks from seed
- Finishing time of Wk 20 then:
- Week 4-8 - Sow pelletized seed 288 or 128 trays of moist germination mix, do not cover seed. Place in a propagator or warm place, and keep at a temperature of between 18-21C (65-70F).
- Do not exclude light during Germ, Keep the surface of the compost moist but not waterlogged; germination will usually take 10-21 days
- Move out of mist house as soon as cotyledons have fully emerged to prevent overwatering
- When large enough to handle, transplant seedlings into 7.5cm (3in) pots or trays in well drained soil with bark based is very effective
- According to Vegetative recommendations: no PGRs should be needed but pinching is very effective in improving branching and flowering
- Start a Weekly fertilizer regime after transplanting to 3 inch container of 75-100ppm nitrogen
- Most important: Light/ Daylength will induce flowering and the process begins late spring
- Moisture - don't keep to wet, eliminate mist as soon as possible, perhaps transplant to a cactus mix, other species of delosperma have had issues with rot in both root and aboveground parts - keep moisture to a minimum and ensure soil is well drained
- Monitor for fungus gnats as root feeding has been a problem in other species
- If preparing for week 20, make sure plant is exposed to long days by Week 16 to ensure flowers present , 4-5 weeks from transplant flowering should begin
- Can be overwintered in containers
- Finish size btw 3-4 inch pots up to 1 gal size pots depending on end result - plant should fill out container nicely with a few flower buds showing color and even better if flower is displayed

Why is 'Stardust' - The next best thing?

Flower Color: Lilac-Purple "white-eyed" Hardy Ice plant - UNIQUE!

- These blooms are about 2 inches wide, with masses of tightly-packed, matchstick-thin violet petals surrounding a large white center.
- magnet for butterflies and other beneficial's
- Foliage turns a hint of red as temps get cooler in the fall
- Amazing bloom time -- they begin in late spring and simply don't quit till frost, going right through THE HOT DAYS of summer and into fall without dropping a petal!
- Just 6 inches high and spreading up to a foot wide, 'Stardust' is a great choice for containers as well as the garden.
- It will spill over the sides of flowerpots and baskets, trailing blooms
- And in the garden, it makes a great carpet beneath bulbs, meanders around shrubs and perennials nicely, and generally fills in space wherever it's needed
- Xeriscaping, Green roof plantings
- Great for that homeowner that hates to water!
- Tolerant of part shade to full sun
- AND DID I MENTION: IT'S HARDY!!



Improvements

- Pelletized seed!!
- Delosperma has so much diversity, there are many opportunities for breeding - many home enthusiasts Breeding
 - improving red color in foliage
 - variances in flower color and shape
 - Improve hardiness
 - Market as a houseplant
 - Breed this species with a more clumping habit such as *DELOSPERMA ashtonii*
 - Improve heat tolerance by breeding with other species in the family
 - Biggest Need - **MARKETING!!!** Get the word out!



Even Bonsai?



Literature Cited

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