Plant Name	Scientific	Common	Family	Updated by CSU 08/20/19
Salvia pachyphylla		Mojave Sage	Lamiaceae	
<b>Propagation Method</b>		Native To		
Seed and cuttings		Mojave Desert/South		
Treatments (Suggested procedures)				

**Seed-** Pre-soaking the seed in water may speed up germination. Seed will also germinate if kept wet.

Vegetative- Treat cuttings with a synthetic auxin-based rooting hormone (Indolebutyric acid (IBA) and/or napthaleneacetic acid (NAA)) at 500 ppm. Rooting hormone can be a liquid formulation (such as Dip 'N Grow) or a powder / talc-based formulation (such as Hormodin). On the day the cuttings are stuck, spray cuttings with Pageant fungicide (25.2% boscalid + 12.8% pyraclostrobin) OR Heritage fungicide (50% azoxystrobin), to minimize occurrence of Fusarium species, Rhizoctonia species, Sclerotinia species.

# **Collection Timing and Strategies**

Cuttings should come from non-flowering stems that have matured but not turned woody.

### **Stock Plant Protocols**

Grow stock plants in a greenhouse with temperature set at 65-720F to encourage vegetative growth and discourage flower production.

Powdery mildew and aphids can be problems in the greenhouse.

Powdery Mildew can be controlled with timely applications of fungicides; Pageant® Intrinsic® brand fungicide (Boscalid + Pyraclostrobin) and Heritage™ (Azoxystrobin) are recommended.

Aphids can be controlled with timely applications of insect growth regulators (such as Enstar AQ [S-Kinoprene]) or insecticides (such as Talstar [bifenthrin]).

As plants age the branches and stems will become woody; to promote flush of new succulent growth, periodically do a hard cutback on stock plants to encourage succulent growth.

### Growing Media -

Stock plants grown in #1 nursery containers with Pindstrup Plus Orange (100% blonde peat), in general, yielded greater number of cuttings per square foot compared to plants grown in Berger BM7 and Metro-mix 820. Stock plants of this species were not evaluated in a growing media containing soil (clay, sand, or silt). Growing media did not affect the rooting of the harvested cuttings.

# Plant Growth Regulators -

Stock plants grown in Pindstrup Plus Orange growing medium, and treated with monthly applications of Fascination (N-(phenylmethyl)-1H-purine 6-amine + Gibberellins A4A7) at 50 ppm resulted in increased vegetative growth without negatively affecting rooting of harvested cuttings.

### Fertilizer -

Stock plants fertilized on a weekly basis will produce succulent new growth.

Select a water-soluble fertilizer with 15-20% nitrogen content (such as 18-6-18 or 20-10-20); fertilizers with low nitrogen content (such as a 3-1-1) will not stimulate sufficient new growth for cutting production. Based on results from two studies, plants grown in Pindstrup Plus Orange growing medium and fertilized with 20-10-20 at 100 ppm Nitrogen yielded the greatest number of cuttings. Fertilizer treatments did not affect the rooting of the harvested cuttings.

# **Cultural Information**

### Greenhouse conditions

**Propagation Stock**- Keep cooler to avoid flowering and maintain vegetative growth. Needs fungicide sprays for Powdery Mildew, Pageant & Heritage are receommended. Hard cutback will result in a flush of new growth if plants are older and woody.

**Production-** Species prefers hot temperatures (75-850F). Growing medium must be kept moist until roots become established.

# Garden conditions

Thrives in arid and full sun environments with well-drained alkaline mineral soils with low organic matter content, and mulched with gravel (such as decomposed granite). Plants will fail to thrive when planted in soil amended with high amounts of organic matter. During extended periods of no natural precipitation, provide 1" of supplemental water monthly.

# **Other expert Advice**

Powdery Mildew and Aphids are a problem in the greenhouse, so a preventative program is recommended.