













Darwin Perennials Propagation Guide

PAGE	CROP	SERIES/VARIETY	MEDIA EC/PH	SOIL TEMPERATURE	ROOTING HORMONE	MIST	FERTILIZATION	PINCHING	TRANSPLANTING	COMMENTS
8	 ACHILLEA <i>Achillea hybrida</i>	Moon Dust	EC 1.0-1.25 mmhos/pH 5.8-6.2	70-72°F (21-22°C)	500-1,000 ppm IBA					
10, 12	 ACHILLEA <i>Achillea millefolium</i>	New Vintage™ Series, Song Siren™ Series	EC 1.0-1.25 mmhos/pH 5.8-6.2	70-72°F (21-22°C)	500-1,000 ppm IBA					
13	 AGASTACHE <i>Agastache rugosa</i>	Little Adder	EC 0.75-0.80 mmhos/pH 5.8-6.2	70-72°F (21-22°C)	500 ppm IBA					
16	 ALYSSUM <i>Alyssum wulfenianum</i>	Golden Spring	EC 0.80-1.0 mmhos/pH 5.8-6.2	70-72°F (21-22°C)	500 ppm IBA					
17	 ARMERIA <i>Armeria pseudoarmeria</i>	Dreameria™ Series	EC 0.8 mmhos/pH 5.8-6.2	70-74°F (21-23°C)	1,500-2,500 ppm IBA					
19	 BUDDLEIA <i>Buddleia davidii</i>	Berry Fizz	EC 0.75-0.80 mmhos/pH 5.8-6.2	70-72°F (21-22°C)	1,000 ppm IBA					
20, 21	 BUDDLEIA <i>Buddleia davidii</i>	Blaze Pink, CranRazz, True Blue	EC 0.75-0.80 mmhos/pH 5.8-6.2	70-72°F (21-22°C)	1,000 ppm IBA					
24	 CAMPANULA <i>Campanula x hybrida</i>	Iridescent Bells	EC 0.80-1.0 mmhos/pH 5.8-6.2	70-72°F (21-22°C)	500-1,000 ppm IBA					
24	 CARYOPTERIS <i>Caryopteris x clandonensis</i>	Grand Bleu®	EC 0.75-0.80 mmhos/pH 5.8-6.2	70-72°F (21-22°C)	1,000-3,000 ppm IBA					
25	 CENTAUREA <i>Centaurea montana</i>	Lavender Mist	EC 0.75-0.80 mmhos/pH 5.8-6.2	70-72°F (21-22°C)	1,000 ppm IBA					
26	 COREOPSIS <i>Coreopsis grandiflora</i>	Sunny Day	EC 0.75-0.80 mmhos/pH 5.8-6.2	70-72°F (21-22°C)	1,000 ppm IBA					
27	 COREOPSIS <i>Coreopsis hybrida</i>	Little Bird	EC 0.75-0.80 mmhos/pH 5.8-6.2	70-72°F (21-22°C)	1,000 ppm IBA					
*	 COREOPSIS <i>Coreopsis hybrida</i>	UpTick™ Series	EC 0.75-0.80 mmhos/pH 5.8-6.2	70-72°F (21-22°C)	500-1,000 ppm IBA					
26, 27	 COREOPSIS <i>Coreopsis verticillata</i>	Crème Caramel, Sylvester	EC 0.75-0.80 mmhos/pH 5.8-6.2	70-72°F (21-22°C)	1,000 ppm IBA					
**	 DIANTHUS <i>Dianthus hybrida</i>	Mountain Frost™ Collection	EC 0.8 mmhos/pH 5.8-6.2	68-70°F (20-21°C)	500 ppm IBA					

* See DarwinPerennials.com

** See front section







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31	 DIGITALIS <i>Digitalis hybrida</i>	Foxlight™ Series	EC 0.75-0.80 mmhos/pH 6.0-6.4	70-72°F (21-22°C)	1,000 ppm IBA basal dip						Low to moderate	50-75 ppm N	Not typical in propagation.	42-49 days after sticking	Foxlight Digitalis root slowly with first roots showing 15 to 18 days after stick. However, it is best to discontinue mist prior to visible root, as they root more quickly when not over-misted and when media is allowed to dry slightly between waterings.
32, 34	 ERYSIMUM <i>Erysimum linifolium</i>	Bowles Me Away, Cheers™ Series	EC 0.8 mmhos/pH 5.8-6.2	68-70°F (20-21°C)	500 ppm IBA						Low	Begin feeding 50-75 ppm 10 days after sticking	Pinch 21-25 days after sticking.	42-49 days after sticking	Don't oversaturate media. Low mist levels work best.
35	 EUPATORIUM <i>Eupatorium dubium</i>	Little Joe	EC 0.75-0.80 mmhos/pH 5.8-6.2	70-72°F (21-22°C)	500 ppm IBA						High for first few days, then reduce to moderate.	50-100 ppm N	Recommended.	42-49 days after sticking	
35	 EUPHORBIA <i>Euphorbia amygdaloides</i>	Red Velvet	EC 0.75-0.80 mmhos/pH 5.8-6.2	70-72°F (21-22°C)	500-1,000 ppm IBA						Low	50-75 ppm N	Recommended after roots are established. Leave 4-5 active internodes.	35-42 days after sticking	Use low mist settings; do not oversaturate rooting media. Root zone temperatures of 70°F (21°C). Remove flowers in propagation.
39	 GAURA <i>Gaura lindheimeri</i>	Ballerina™ Series, Belleza™ Series	EC 0.75-0.80 mmhos/pH 5.8-6.2	68-73°F (20-23°C)	500 ppm IBA						Low to moderate	75-100 ppm N when roots become visible; increase to 150-200 ppm N as roots develop	Yes, 7 days before transplanting.	35-42 days after sticking	Use low mist settings; do not oversaturate rooting media. Root zone temperatures of 70°F (21°C). Remove flowers in propagation.
40	 GAURA <i>Gaura lindheimeri</i>	Little Janie, Whiskers Deep Rose	EC 0.75-0.80 mmhos/pH 5.8-6.2	70-72°F (21-23°C)	500 ppm IBA						Low to moderate	50-75 ppm N when roots become visible.	Recommended after roots are established. Leave 4-5 active internodes.	35-42 days after sticking	Use low mist settings; do not oversaturate rooting media. Root zone temperatures of 70°F (21°C). Remove flowers in propagation.
42	 HELIANTHUS <i>Helianthus salicifolius</i>	Autumn Gold	EC 0.8 mmhos/pH 5.8-6.2	70-74°F (21-23°C)	500 ppm IBA						Low	Feed at 100 ppm N after 9 days	Pinch once shoots elongate for best branching.	35-42 days after sticking	Typically remove from propagation area after two weeks. Don't keep rooting media excessively wet. Use long-day lighting when propagating when day length is less than 12 hours.
43, 46	 HELIOPSIS <i>Heliopsis helianthoides</i>	Double Sunstruck, Sunstruck	EC 0.75-0.80 mmhos/pH 5.8-6.2	70-72°F (21-22°C)	1,000 ppm IBA						Low	50-75 ppm N when roots become visible.	Recommended after roots are established. Leave 4-5 active internodes.	35-42 days after sticking	Use low mist settings; do not oversaturate rooting media. Root zone temperatures of 70°F (21°C). Remove flowers in propagation. Long day obligate plant. Must provide long days in propagation.
47	 IBERIS <i>Iberis amara</i>	White Heat	EC 0.75-0.80 mmhos/pH 5.8-6.2	70-72°F (21-22°C)	500 ppm IBA						Low to moderate	50-75 ppm N when roots become visible.	Recommended after roots are established. Leave active internodes.	28-35 days after sticking	Use low mist settings; do not oversaturate rooting media. Root zone temperatures of 70°F (21°C). Remove flowers in propagation.
47	 IBERIS <i>Iberis gibraltarica</i>	Lavish	EC 0.75-0.80 mmhos/pH 5.8-6.2	70-72°F (21-22°C)	500 ppm IBA						Low to moderate	50-75 ppm N when roots become visible.	Recommended after roots are established. Leave 4-5 active internodes.	28-35 days after sticking	Use low mist settings; do not oversaturate rooting media. Root zone temperatures of 70°F (21°C). Remove flowers in propagation.
48	 IBERIS <i>Iberis sempervirens</i>	Snowsation	EC 0.8 mmhos/pH 5.8-6.2	68-72°F (20-22°C)	300 ppm IBA						Low to moderate	100 ppm N starting at Day 10	Yes, pinch after 4 weeks. Can be double pinched in the liner stage for even greater branching.	42-49 days after sticking depending on number of pinches	Iberis benefit from a basal IBA dip prior to sticking. Do not over-mist or high losses can occur.
51	 LAVANDULA <i>Lavandula angustifolia</i>	SuperBlue	EC 0.75-0.80 mmhos/pH 5.9-6.2	70-72°F (21-22°C)	500 ppm IBA						Low; prefers high humidity to mist	50-75 ppm N	Recommended.	42-56 days after sticking	Use low mist settings; do not oversaturate rooting media. Root zone temperatures of 70°F (21°C). Remove flowers in propagation.
53, 54	 LAVANDULA <i>Lavandula stoechas</i>	Anouk Series, Bright Luxurious, Luxurious	EC 0.75-0.80 mmhos/pH 5.8-6.2	70-72°F (21-22°C)	500 ppm IBA						Low; prefers high humidity to mist	50-75 ppm N	Recommended after roots are established. Leave 4-5 active internodes.	42-56 days after sticking	Use low mist settings; do not oversaturate rooting media. Root zone temperatures of 70°F (21°C). Remove flowers in propagation.
57	 LEUCANTHEMUM <i>Leucanthemum x superbum</i>	Santé	EC 0.75-0.80 mmhos/pH 5.8-6.2	70-72°F (21-22°C)	500 ppm IBA						Low	50-75 ppm N	Not typically necessary.	42-56 days after sticking	Use low mist settings; do not oversaturate rooting media. Root zone temperatures of 70°F (21°C). Remove flowers in propagation.
56	 LEUCANTHEMUM <i>Leucanthemum x superbum</i>	White Magic	EC 0.8 mmhos/pH 5.8-6.4	68-74°F (20-23°C)	500 ppm IBA						Low to moderate	75-100 ppm N starting at Day 7	Pinch while young plants are soft and actively growing.	35-42 days after sticking	Pinch any premature buds as they become visible.

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60	 MONARDA <i>Monarda didyma</i>	Balmy™ Series	EC 1.0-1.25 mmhos/pH 5.8-6.2	70-72°F (21-22°C)	500 ppm IBA	Moderate	50-75 ppm N	Recommended.	28-35 days after sticking	Do not oversaturate rooting media. Use long-day lighting when day length is less than 12 hours to keep plants actively growing.
63	 NEPETA <i>Nepeta x faassenii</i>	Junior Walker	EC 0.75-0.80 mmhos/pH 5.8-6.2	70-72°F (21-22°C)	500-1,000 ppm IBA	Moderate	50-75 ppm N	Recommended.	35-42 days after sticking	Roots quickly. Plan to pinch in liner tray.
66	 PENSTEMON <i>Penstemon barbatus</i>	Rock Candy® Series	EC 0.75-0.80 mmhos/pH 5.8-6.2	70-72°F (21-22°C)	500 ppm IBA	Moderate to high for first 24 hours, then reduce to low.	50-75 ppm N	Recommended.	35-42 days after sticking	Use low mist settings; do not oversaturate rooting media. Root zone temperatures of 70°F (21°C).
70	 PENSTEMON <i>Penstemon hybrida</i>	Little Bells	EC 0.75-0.80 mmhos/pH 5.8-6.2	70-72°F (21-22°C)	500 ppm IBA	Moderate to high for first 24 hours, then reduce to low.	50-75 ppm N	Recommended.	35-42 days after sticking	Use low mist settings; do not oversaturate rooting media. Root zone temperatures of 70°F (21°C).
68, 69	 PENSTEMON <i>Penstemon hybrida</i>	Cherry Sparks, Quartz® Amethyst, Quartz® Rose	EC 0.75-0.80 mmhos/pH 5.8-6.2	70-72°F (21-22°C)	500 ppm IBA	Moderate to high for first 24 hours, then reduce to low.	50-75 ppm N	Recommended.	35-42 days after sticking	Use low mist settings; do not oversaturate rooting media. Root zone temperatures of 70°F (21°C).
68	 PENSTEMON <i>Penstemon hybrida</i>	MissionBells™ Deep Rose	EC 0.75-0.80 mmhos/pH 5.8-6.2	70-72°F (21-22°C)	500 ppm IBA	Moderate to high for first 24 hours, then reduce to low.	50-75 ppm N	Recommended.	35-42 days after sticking	Use low mist settings; do not oversaturate rooting media. Root zone temperatures of 70°F (21°C).
72, 73	 PEROVSKIA <i>Perovskia atriplicifolia</i>	CrazyBlue, Little Lace	EC 1.0-1.25 mmhos/pH 5.8-6.2	70-72°F (21-22°C)	1,000 ppm IBA	Moderate to high for first 24 hours, then reduce to low.	50-75 ppm N after 10 days	Recommended.	35-42 days after sticking	Use low mist settings; do not oversaturate rooting media. Root zone temperatures of 70°F (21°C).
76	 PHLOX <i>Phlox paniculata</i>	Cherry Cream	EC 0.8 mmhos/pH 5.8-6.2	68-74°F (20-23°C)	500 ppm IBA	Low to moderate	75-100 ppm N starting at Day 7	Yes, while young plants are soft and actively growing.	42-49 days after sticking	Plants grow more actively under long days. Use 13-hour extended day lighting for Winter propagation.
81	 RHODANTHEMUM <i>Rhodanthemum hosmariense</i>	Casablanca, Marrakech	EC 0.80-1.0 mmhos/pH 5.8-6.2	68-74°F (20-23°C)	300 ppm IBA	Moderate	75-100 ppm N when roots become visible; increase to 150-200 ppm N as roots develop.	Recommended after roots are established.	35-42 days after sticking	Use low mist settings; do not over-saturate rooting media. Root zone temperatures of 70°F (21°C).
84	 SALVIA <i>Salvia greggii</i>	Mirage™ Series	EC 0.75-0.80 mmhos/pH 5.8-6.2	70-72°F (21-22°C)	500 ppm IBA	Moderate	50-75 ppm N	Recommended after roots are established. Leave 4-5 active internodes.	35-42 days after sticking	Use low mist settings; do not oversaturate rooting media. Root zone temperatures of 70°F (21°C).
87	 SALVIA <i>Salvia greggii</i>	Radio Red	EC 0.75-0.80 mmhos/pH 5.8-6.2	70-72°F (21-22°C)	500 ppm IBA	Moderate	50-75 ppm N	Recommended after roots are established. Leave 4-5 active internodes.	35-42 days after sticking	Begin fertilizing 7 days after stick.
87	 SALVIA <i>Salvia greggii</i>	Suncrest Series, Suncrest Landscape Series	EC 0.75-0.80 mmhos/pH 5.8-6.2	70-72°F (21-22°C)	500 ppm IBA	Low to moderate	50-75 ppm N	Recommended after roots are established. Leave 4-5 active internodes.	35-42 days after sticking	Begin fertilizing 7 days after stick.
86	 SALVIA <i>Salvia hybrida</i>	Arctic Blaze® Series	EC 0.75-0.80 mmhos/pH 5.8-6.2	70-72°F (21-22°C)	500 ppm IBA	Moderate	50-75 ppm N	Recommended after roots are established. Leave 4-5 active internodes.	35-42 days after sticking	Roots quickly. Plan to pinch in liner tray.
89	 SALVIA <i>Salvia nemorosa</i>	Blue Marvel	EC 0.75-0.80 mmhos/pH 5.8-6.2	70-72°F (21-22°C)	1,000 ppm IBA	Low	50-75 ppm N at Day 7	A soft pinch will increase branching.	35-42 days after sticking	Discontinue mist as quickly as possible and only mist to avoid leaf wilt.
90, 91	 SALVIA <i>Salvia nemorosa</i>	Burgundy Candles, Lyrical™ Series	EC 0.75-0.80 mmhos/pH 5.8-6.2	70-72°F (21-22°C)	1,000 ppm IBA	Low	50-75 ppm N at Day 7	A soft pinch will increase branching.	35-42 days after sticking	Discontinue mist as quickly as possible and only mist to avoid leaf wilt. Begin feeding 7 days after sticking with 75-100 ppm N.

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*	 SALVIA <i>Salvia nemorosa</i>	Rose Marvel	EC 0.8 mmhos/pH 5.8-6.2	70-72°F (21-22°C)	1,000 ppm IBA basal dip						Over-misting and saturated propagation media will dramatically delay rooting and increase rooting losses. Discontinue mist as quickly as possible and only mist to avoid leaf wilt.
94	 SCABIOSA <i>Scabiosa columbaria</i>	Flutter™ Series	EC 0.8 mmhos/pH 5.8-6.2	70-72°F (21-22°C)	1,000 ppm IBA						Scabiosa cuttings are sensitive to over-misting and over-watering in propagation.
104	 VERONICA <i>Veronica austriaca</i>	Venice Blue	EC 0.75-0.80 mmhos/pH 5.8-6.2	70-72°F (21-22°C)	500 ppm IBA						Roots quickly. Plan to pinch in liner tray.
106	 VERONICA <i>Veronica hybrida</i>	Moody Blues® Series	EC 0.75-0.80 mmhos/pH 5.8-6.2	70-72°F (21-22°C)	500 ppm IBA						Roots quickly. Plan to pinch in liner tray.
108	 VERONICA <i>Veronica x hybrida</i>	Purpleicious	EC 0.75-0.80 mmhos/pH 5.8-6.2	70-72°F (21-22°C)	500 ppm IBA						Roots quickly. Plan to pinch in liner tray.
111, 112	 VIOLA <i>Viola cornuta</i>	Halo Series, Jumping Jack	EC 0.80-1.0 mmhos/pH 5.5-5.8	70-72°F (21-22°C)	500-750 ppm IBA						Excessive media moisture will slow rooting. Begin fertilizing at Day 7 with 75 ppm N.

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