

Cultural Information

CULTURE



Cultural Information

	Vigor	pH/EC	Rooting Out Temperature	Growing Temperature	Holding Temperature	Water Requirements	Planting and Timing	Finish Times in Weeks	Spring Outdoor Finish
ARTIST® <i>Ageratum</i>	Vigor 2	5.8 - 6.2/6 -9	65-72° F (18-22° C)	65-72° F (18-22° C)	50-60° F (10-16° C)	Moderate to Moist	Early Spring through Summer Finish. Standard Plants Per Container.	For 4-5", 4-6; for 6"/gallon, 5-7; for 8", 7-9; for 10-12", 10-12	Last to go outside
ANGELFACE® <i>Angelonia</i>	Vigor 3	5.8 - 6.2/6 -9	65-72° F (18-22° C)	70-75° F (21-24° C)	60-65° F (16-18° C)	Moderate to Moist	Spring through Summer Finish. Standard Plants Per Container.	For 4-5", 5-7; for 6"/gallon, 7-8; for 8", 7-9; for 10-12", 10-14	Do not finish outside
BUTTERFLY <i>Argyranthemum</i>	Vigor 3	5.8 - 6.2/6 -9	65-72° F (18-22° C)	60-65° F (16-18° C)	40-50° F (4-10° C) outdoors	Moderate to Moist	Early Spring through Fall Finish. Standard Plants Per Container.	For 4-5", 5-7; for 6"/gallon, 7-8; for 8", 7-9; for 10-12", 10-14	First to go outside
SILVER BULLET™ <i>Artemisia</i>	Vigor 3	5.8 - 6.5/6 -9	65-72° F (18-22° C)	55-65° F (12-18° C)	40-50° F (4-10° C) outdoors	Moderate	Early Spring through Fall Finish. Standard Plants Per Container.	For 4-5", 4-6; for 6"/gallon, 5-7; for 8", 7-9; for 10-12", 8-10	First to go outside
PEGASUS® <i>Begonia</i>	Vigor 3	5.5 - 6.0 /6 -9	65-72° F (18-22° C)	65-72° F (18-22° C)	65-72° F (18-22° C)	Dry to Moderate	Spring to Fall Finish.	For 4-5", 5-7; for quarts, 6-8; for 6"/gal, 7-9; for 10-12". 10-12	Do not move outside until all danger of frost is past
SUREFIRE® <i>Begonia</i>	Vigor 4	5.5 – 6.2/6 -9	65-72° F (18-22° C)	65-72° F (18-22° C)	65-72° F (18-22° C) outdoors	Dry to Moist	Spring through Summer Finish. Standard Plants Per Container.	For 4-5", 5-7; for 6"/gallon, 6-8; for 8", 7-9; for 10-12", 10-12	Do not move outside until all danger of frost is past
CAMPFIRE® Fireburst and GOLDILOCKS ROCKS® <i>Bidens</i>	Vigor 3	5.8 – 6.2/6 -9	65-72° F (18-22° C)	55-65° F (12-18° C)	40-50° F (4-10° C) outdoors	Moderate	Early Spring through Fall Finish. Standard Plants Per Container.	For 4-5", 4-6; for 6"/gallon, 5-7; for 8", 7-9; for 10-12", 10-12	Second to go outside
SUNDAZE® GOLDEN BEAUTY® <i>Bracteantha</i>	Vigor 1	5.5 - 6.2/ < .6	65-72° F (18-22° C)	55-65° F (12-18° C)	40-50° F (4-10° C) outdoors	Dry to Moderate	Early Spring through Fall Finish. Standard Plants Per Container.	For 4-5", 4-6; for 6"/gallon, 5-7; for 8", 7-9; for 10-12", 10-12	Last to go outside
ENDLESS™ <i>Browallia</i>	Vigor 2	6.5 - 7.5/6 - 9	70-85° F (21-29° C)	70-85° F (21-29° C)	70-85° F (21-29° C)	Moderate to Moist	Late Spring through Summer Finish. Standard Plants Per Container.	For 4-5", 5-7; for 6"/gallon, 6-9; for 8", 8-9; for 10-12", 9-13	Last to go outside
ARTFUL® FIRE AND ICE® HEARTFIRE® <i>Caladium</i>	Vigor 2 Vigor 2	5.5 - 6.5/6 -9	70-85° F (21-29° C)	65-72° F (18-22° C)	65-72° F (18-22° C)	Moderate to Moist	Late Spring to Summer Finish. Standard Plants Per Container.	For 4-5", 8-10; for 6"/gallon, 9-11	Do not move outsdie until all danger of frost is past
LADY GODIVA™ Orange <i>Calendula</i>	Vigor 2	5.8 - 6.2/6 - 9	65-72° F (18-22° C)	55-65° F (12-18° C)	40-50° F (4-10° C)	Moderate	Early Spring through Fall Finish. Standard Plants Per Container.	For 4-5", 5-7; for 6"/gallon, 7-9; for 8", 8-10; for 10-12", 10-12	Second to go outside
SUPERBELLS® <i>Calibrachoa</i>	Vigor 2	5.5 - 5.8/6 -9	65-72° F (18-22° C)	55-65° F (12-18° C)	40-50° F (4-10° C) outdoors	Moderate to Moist	Early Spring through Fall Finish. Standard Plants Per Container.	For 4-5", 4-6; for 6"/gallon, 5-7; for 8", 7-9; for 10-12", 10-12	Second to go outside
TOUCAN™ <i>Canna</i>	Vigor 4	6.2 - 7.0/1.0 -2.0	75-85° F (24-30° C)	75-85° F (24-30° C)	65-72° F (18-22° C)	Moist	Late Spring through Summer Finish. Standard Plants Per Container.	For 4-5", 6-8; for 6"/gallon, 6-8; for 8", 8-10; for 10-12", 10-12	Do not move outside until all danger of frost is past

Cultural Information

	Vigor	pH/EC	Rooting Out Temperature	Growing Temperature	Holding Temperature	Water Requirements	Planting and Timing	Finish Times in Weeks	Spring Outdoor Finish
FLAMBE® Yellow <i>Chrysocephalum</i>	Vigor 2	6.0 - 6.5/6 - 9	65-72° F (18-22° C)	65-72° F (18-22° C)	50-60° F (10-16° C) outdoors	Dry to Moderate	Spring through Fall Finish. Standard Plants Per Container.	For 4-5", 5-6; for 6"/gallon, 6-8; for 8", 8-10; for 10-12", 10-12	Do not move outside until all danger of frost is past
PEQUEÑA and ROSALITA® <i>Cleome</i>	Vigor 4	5.8 - 6.2/1.0 - 2.0	65-72° F (18-22° C)	65-72° F (18-22° C)	50-60° F (10-16° C) outdoors	Dry to Moderate	Mid-Spring through Summer Finish. Standard Plants Per Container.	For 4-5", 5-6; for 6"/gallon, 6-8; for 8", 8-10; for 10-12", 10-12	Do not move outside until all danger of frost is past
FAIRY DUST™ Pink <i>Cuphea</i>	Vigor 3	6.0 - 6.5/6 - 9	65-72° F (18-22° C)	65-72° F (18-22° C)	50-60° F (10-16° C)	Moderate	Spring through Fall Finish. Standard Plants Per Container.	For 4-5", 5-7; for 6"/gallon, 7-9; for 10-12" 10-12	Last group to go outside
VERMILLIONAIRE® <i>Cuphea</i>	Vigor 3	6.0 - 6.5/6 - 9	65-72° F (18-22° C)	70-75° F (21-24° C)	50-60° F (10-15° C) outdoors	Moderate to Moist	Late Spring through Summer Finish. Standard Plants Per Container.	For 4-5", 5-6; for 6"/gallon, 8-10; for 10-12" 10-12	Last group to go outside
MYSTIC Illusion and DAHLIGHTFUL® <i>Dahlia</i>	Vigor 3	5.8 - 6.2/8 -1.2	65-72° F (18-22° C)	65-72° F (18-22° C)	50-60° F (10-15° C)	Moderate to Moist	Early Spring to Summer Finish. Standard Plants Per Container.	For 4-5", 5-6; for 6"/gallon, 6-8; for 8", 8-10; for 10-12", 10-12	Do not move outside
FLIRTATION® <i>Diascia</i>	Vigor 2	5.8 - 6.2/6 - 9	65-72° F (18-22° C)	55-65° F (12-18° C) outdoors	40-50° F (4-10° C)	Moderate to Moist Standard Plants Per Container.	Early Spring through Fall Finish. 5-7; for 8", 7-9; for 10-12", 10-12	For 4-5", 4-6; for 6"/gallon, 5-7; for 8", 7-9 for 10-12", 10-12	Second to go outside
DIAMOND FROST® DIAMOND DELIGHT® <i>Euphorbia</i>	Vigor 3 Vigor 2	5.8 - 6.2/6 - 9	65-72° F (18-22° C)	65-72° F (18-22° C)	50-60° F (10-16° C) outdoors	Moderate to Moist	Early Spring through Summer Finish. Standard Plants Per Container.	For 4-5", 4-6; for 6"/gallon, 5-7; for 8", 7-9; for 10-12", 10-12	Do not move outside until all danger of frost is past
BLUE MY MIND® <i>Evolvulus</i>	Vigor 2	6 - 6.5/< .6	65-72° F (18-22° C)	70-75° F (21-24° C)	50-60° F (10-16° C) outdoors	Dry to Moderate	Spring through Summer Finish. Standard Plants Per Container.	For 4-5", 6-8; for 6"/gallon, 10-12; for 8", 10-12; for 10-12", 12-14	Last to go outside
STRATOSPHERE™ and KARALEE® <i>Gaura</i>	Vigor 3	5.8 - 6.2/6 - 9	65-72° F (18-22° C)	55-65° F (12-18° C)	40-50° F (4-10° C) outdoors	Moderate to Moist	Early Spring through Fall Finish. Standard Plants Per Container.	For 4-5", 6-8; for 6"/gallon, 7-10; for 8", 8-11; for 10-12", 12-14	First to go outside
HELLO!™ <i>Gerbera</i>	Vigor 2	5.5 - 6.2 /6 - 9	65-72° F (18-22° C)	65-72° F (18-22° C)	45-50° F (7-10° C) outdoors	Moderate to Moist	Spring to Summer Finish. Standard Plants Per Container.	For 4-5", not recommended; for 6"/gallon, 8-12; for 8", 10-12; for 10-12", 10-14	Second to go outside
GRACEFUL GRASSES® Toffee Twist <i>Carex</i>	Vigor 2	5.8 - 6.2/6 - 9	65-72° F (18-22° C)	65-72° F (18-22° C)	40-50° F (4-10° C)	Moderate to Moist	Spring through Fall Finish. Standard Plants Per Container.	For 4-5" and QT, 6-8; for 6"/gallon, 8-10; for 7-9", 12-14	Last to go outside
GRACEFUL GRASSES® BABY TUT® KING TUT® PRINCE TUT™ <i>Cyperus</i>	Vigor 4 Vigor 4 Vigor 4	6 - 6.5/6 - 9	65-72° F (18-22° C)	65-72° F (18-22° C)	50-65° F (10-18° C)	Moderate to Moist	Early Spring through Summer Finish. Standard 1 liner per 6" container	For 4-5", 4-6; for 6"/gallon, 6-8; for 8", 7-9; for 10-12", 10-12	Do not finish outside
GRACEFUL GRASSES® BLUE MOHAWK® <i>Juncus</i>	Vigor 2	5.8 - 6.2/6 - 9	65-72° F (18-22° C)	65-72° F (18-22° C)	40-50° F (4-10° C)	Moist to Wet	Spring to Summer Finish. Standard Plants Per Container.	For 4-5" and QT, 4-6; for 6"/gallon, 6-8	Last to go outside

Cultural Information

	Vigor	pH/EC	Rooting Out Temperature	Growing Temperature	Holding Temperature	Water Requirements	Planting and Timing	Finish Times in Weeks	Spring Outdoor Finish
GRACEFUL GRASSES® 'Fireworks' Purple Fountain Grass Red Riding Hood 'Sky Rocket' VERTIGO® <i>Pennisetum</i>	Vigor 3 Vigor 3 Vigor 2 Vigor 3 Vigor 4	5.8 - 6.2/6 -9	65-72° F (18-22° C)	70-75° F (21-24° C)	50-65° F (10-18° C) outdoors	Moderate to Moist	Spring to Fall Finish. Standard Plants Per Container.	For 4-5" and QT, 4-8; for 6"/gallon, 6-9 for 7-9", 8-10; for 10-12" and 2 gallon, 10-14	Do not move outside until all danger of frost is past
GRACEFUL GRASSES® Fiber Optic Grass <i>Scirpus</i>	Vigor 2	5.8 - 6.2/6 -9	65-72° F (18-22° C)	70-75° F (21-24° C)	50-65° F (10-18° C) outdoors	Moderate to Moist	Late Spring through Summer Finish. Standard Plants Per Container.	For 4-5", 5-7; for 6"/gallon, 7-8; for 8", 7-9; for 10-12", 10-14	Do not move outside until all danger of frost is past
HIPPO™ <i>Hypoestes</i>	Vigor 2	5.8 - 6.2/6 -9	65-72° F (18-22° C)	70-80° F (21-27° C)	65-70° F (10-18° C) outdoors	Moderate	Early Spring through Fall Finish. Standard Plants Per Container.	For 4-5", 5-7; for 6"/gallon, 7-9; for 8", 8-10; for 10-12", 10-12	Last to go outside
ROCKAPULCO® <i>Impatiens</i>	Vigor 2	5.8 - 6.2/75 -.80	68-74° F (19-23° C)	65-75° F (18-24° C)	50-60° F (10-16° C)	Moderate to Moist	Early Spring through Fall Finish. Standard Plants Per Container.	For 4-5", 6-9; for 6"/gallon, 7-9; for 8", 7-9; for 10-12", 10-12	Do not finish outside
ILLUSION® and Sweet Caroline <i>Ipomoea</i> Sweet Caroline Bewitched Green with Envy™	Vigor 3 Vigor 4	6.0 - 6.5/6 -9	65-72° F (18-22° C)	70-75° F (21-24° C)	50-60° F (10-16° C) outdoors	Moderate to Moist	Spring through Summer Finish. Standard Plants Per Container.	For 4-5", 5-6; for 6"/gallon, 6-8; for 8", 8-10; for 10-12", 10-12	Do not move outside until all danger of frost is past
BETH'S BLUE® <i>Isotoma</i>	Vigor 2	5.8 - 6.2/6 -9	65-72° F (18-22° C)	50-65° F (10-18° C)	40-50° F (4-10° C)	Moderate to Moist	Early Spring to Fall Finish. Standard Plants Per Container.	For 4-5", 5-6; for 6"/gallon, 8-9; for 8", 9-10; for 10-12", 10-12	First to go outside
PINK CHABLIS® PURPLE CHABLIS™ <i>Lamium</i>	Vigor 3 Vigor 3	6.0 - 6.5/6-.9	65-72° F (18-22° C)	55-65° F (12-18° C)	40-50° F (4-10° C)	Moderate to Moist	Early Spring through Fall Finish. Standard Plants Per Container.	For 4-5", 4-6; for 6"/gallon, 5-7; for 8", 7-9; for 10-12", 10-12	First to go outside
LUSCIOUS® BERRY BLEND™, CITRUS BLEND™, PINKBERRY BLEND™ Bananarama, Lemonade, Marmalade Grape, Royale Cosmo, Royale Piña Colada <i>Lantana</i>	Vigor 4 Vigor 3 Vigor 2	5.8 - 6.2/6-1.5	65-72° F (18-22° C)	70-75° F (21-24° C)	50-60° F (10-16° C)	Moderate to Moist	Spring through Summer Finish. Standard Plants	For 4-5", 4-6; for 6"/gallon, 5-7; for 8", 7-9;	Do not finish outside
LAGUNA™ LUCIA® <i>Lobelia</i>	Vigor 2 Vigor 2	5.8 - 6.2/6-.9	65-72° F (18-22° C)	65-72° F (18-22° C)	40-50° F (4-10° C) outdoors	Moderate to Moist	Spring through Summer Finish. Standard Plants Per Container.	For 4-5", 4-6; for 6"/gallon, 5-7; for 8", 7-9; for 10-12", 10-12	Second to go outside
BLUSHING PRINCESS® DARK KNIGHT® SNOW PRINCESS® FROSTY KNIGHT® WHITE KNIGHT® <i>Lobularia</i>	Vigor 4 Vigor 3 Vigor 4 Vigor 3 Vigor 3	6.0 - 6.5/6-.9	65-72° F (18-22° C)	55-65° F (12-18° C)	40-55° F (4-12° C) outdoors	Moderate to Moist	Early Spring through Fall Finish. Standard Plants Per Container.	For 4-5", 3-5; for 6"/gallon, 5-7; for 8", 7-9; for 10-12", 10-12	First to go outside
GOLDDUST® <i>Mecardonia</i>	Vigor 2	5.8 - 6.2/6-.9	65-72° F (18-22° C)	70-75° F (21-24° C)	70-75° F (21-24° C)	Moderate to Moist	Spring through Summer Finish. Standard Plants per Container.	For 4-5", 4-6; for 6"/gallon, 5-7; for 8", 7-9; for 10-12", 10-12	Do not finish outside
SUNSATIA® <i>Nemesia</i>	Vigor 2	5.5 - 5.8/6-.9	65-72° F (18-22° C)	55-65° F (12-18° C)	40-50° F (4-10° C)	Dry to Moderate	Early Spring through Fall Finish. Standard Plants Per Container.	For 4-5", 4-6; For 6"/gallon, 5-7; for 8", 7-9; for 10-12", 10-12	Second to go outside

Cultural Information

	Vigor	pH/EC	Rooting Out Temperature	Growing Temperature	Holding Temperature	Water Requirements	Planting and Timing	Finish Times in Weeks	Spring Outdoor Finish
INNOCENCE® <i>Nemesia fruticans</i>	Vigor 2	5.5 - 5.8/6-.9	65-72° F (18-22° C)	55-65° F (12-18° C)	40-50° F (4-10° C) outdoors	Moderate to Moist	Early Spring through Fall Finish. Standard Plants Per Container.	For 4-5", 4-6; for 6"/gallon, 5-7; for 8", 7-9; for 10-12", 10-12	First to go outside
INFINITY® RUFFLES™ <i>New Guinea Impatiens</i>	Vigor 1 Vigor 1	6.0-6.5/2-.6	65-72° F (18-22° C)	65-75° F (18-24° C)	65-68° F (18-20° C)	Moderate to Moist	Spring through Summer Finish. 4-5" 1 ppp, 6-8" and Gallons; 3 ppp, 10" 4-5 ppp.	For 4-5", 6-8; for 6"/gallon, 8-10; for 8", 8-10; for 10-12", 12-14	Do not finish outside
LEMON DROP® <i>Oenothera</i>	Vigor 2	5.6 - 6.2/6 -.9	65-72° F (18-22° C)	55-65° F (12-18° C)	40-50° F (4-10° C)	Moderate to Moist	Spring to Fall Finish. Standard Plants Per Container.	For 4-5", 4-6; for 6"/gallon, 5-7; for 8", 7-9; for 10-12", 12-14	Last to go outside
SOPRANO® and BRIGHT LIGHTS™ Yellow <i>Osteospermum</i>	Vigor 2	5.8 - 6.2/6-.9	65-72° F (18-22° C)	55-65° F (12-18° C)	40-50° F (4-10° C) outdoors	Dry to Moderate	Early Spring through Fall Finish. Standard Plants Per Container.	For 4-5", 4-6; 5-7; for 8", 7-9; for 10-12", 10-12	Last to go outside
SYMPHONY <i>Osteospermum</i>	Vigor 2	5.8 - 6.2/6 -.9	65-72° F (18-22° C)	55-65° F (12-18° C)	40-50° F (4-10° C) outdoors	Dry to Moderate	Early Spring through Fall Finish. Standard Plants Per Container.	For 4-5", 4-6; 5-7; for 8", 7-9; for 10-12", 10-12	First to go outside
CHARMED® Wine <i>Oxalis regnellii</i>	Vigor 1	5.8 - 6.2/6 -.9	65-72° F (18-22° C)	65-72° F (18-22° C)	50-60° F (10-16° C)	Moderate to Moist	Early Spring through Summer Finish. Standard Plants Per Container.	For 4-5", 4-6; for 6"/gallon, 5-7; for 8", 7-9; for 10-12", 10-12	Do not finish outside
BOLDLY® and TIMELESS™ <i>Pelargonium</i>	Vigor 3 Vigor 2	6.0 - 6.5/1.0-1.5	65-72° F (18-22° C)	65-72° F (18-22° C)	50-60° F (10-16° C)	Moderate	Spring through Summer Finish. 4-8" pots, 1 ppp; 10" and larger, 3 ppp	For 4-5", 6-8; for 6"/gallon, 8-9; for 7-9", 7-9; for 10-12", 10-12	Do not move outside until all danger of frost is past
SUPERTUNIA® except Giant Pink, Pretty Much Picasso®, and Vista <i>Petunia</i>	Vigor 3 Vigor 4	5.5 - 5.8/1.0-2.0	65-72° F (18-22° C)	55-65° F (12-18° C) outdoors	40-50° F (4-10° C)	Moderate to Moist	Early Spring through Fall Finish. Standard Plants Per Container.	For 4-5", 4-6; 5-7; for 8", 7-9; for 10-12", 8-10	First to go outside
INTENSIA® <i>Phlox</i>	Vigor 2	5.8 - 6.2/1.0-2.0	65-72° F (18-22° C)	55-65° F (12-18° C)	40-50° F (4-10° C) outdoors	Dry to Moderate	Early Spring through Fall Finish. Standard Plants Per Container.	For 4-5", 4-6; 5-7; for 8", 7-9; for 10-12", 10-12	Second to go outside
MOJAVE® <i>Portulaca</i>	Vigor 2	6.0 - 6.5/ <.6	65-72° F (18-22° C)	65-72° F (18-22° C)	50-60° F (10-16° C)	Dry to Moderate	Spring through Summer Finish. Standard Plants Per Container.	For 4-5", 4-6; for 6"/gallon, 7-9; for 8", 8-10; for 10-12", 10-12	Last to go outside
ABLAZIN® <i>Salvia</i>	Vigor 3	5.5 - 6.2/6-.9	65-72° F (18-22° C)	55-65° F (12-18° C)	50-60° F (10-16° C)	Moderate to High	Spring through Summer Finish. Standard Plants Per Container.	For 4-5", 4-5; for 6"/gallon, 7-9; for 8", 10; for 10-12", 9-11	Last to go outside
ROCKIN'™ <i>Salvia</i>	Vigor 4	5.8 - 6.2/6-.9	65-72° F (18-22° C)	55-65° F (12-18° C)	50-60° F (10-16° C)	Moderate	Spring through Fall Finish. Standard Plants Per Container.	For 4-5", 5-7; for 6"/gallon (best), 7-9; for 8", 8-10; for 10-12", 10-12	Second to go outside
SUNBINI™ <i>Sanvitalia</i>	Vigor 2	5.8 - 6.2/0-.6	65-72° F (18-22° C)	65-72° F (18-22° C)	50-60° F (10-16° C)	Dry to Moderate	Spring through Summer Finish. Standard Plants Per Container.	For 4-5", 4-6; for 6"/gallon, 5-7; for 8", 7-9; for 10-12", 10-12	Do not finish outside



Cultural Information

	Vigor	pH/EC	Rooting Out Temperature	Growing Temperature	Holding Temperature	Water Requirements	Planting and Timing	Finish Times in Weeks	Spring Outdoor Finish
WONDER WHIRLWIND® <i>Scaevola</i>	Vigor 3 Vigor 3	5.5 - 5.8/.6-.9	65-72° F (18-22° C)	65-72° F (18-22° C)	50-60° F (10-16° C)	Moderate	Early Spring through Fall Finish. Standard Plants Per Container.	For 4-5", 4-6; for 6"/gallon, 5-7; for 8", 7-9; for 10-12", 10-12	Do not finish outside
LEMON CORAL™ <i>Sedum</i>	Vigor 2	5.8 - 6.2/ <.6	65-72° F (18-22° C)	65-72° F (18-22° C)	50-60° F (10-16° C)	Dry to Moderate	Spring through Fall Finish. Standard Plants Per Container.	For 4-5", 6-7; for 6"/gallon, 8-9; for 8", 8-10; for 10-12", 10-12	Last to go outside
COLORBLAZE® Dark Star, ‘Sedona’ ALLIGATOR TEARS™, APPLE BRANDY®, LIME TIME™, ROYAL GLISSADE®, VELVETEEN® Dipt in Wine, KEYSTONE KOPPER®, Kingswood Torch, MAROONED® <i>Solenostemon</i>	Vigor 2 Vigor 3 Vigor 4	6.0 - 6.5/0.6-0.9	65-72° F (18-22° C)	65-72° F (18-22° C)	50-60° F (10-16° C)	Moderate to High	Spring through Summer Finish. Standard Plants Per Container.	For 4-5", 5-6; for 6"/gallon, 6-8; for 8", 8-10; for 10-12", 10-12	Do not finish outside
SNOWSTORM® Blue and Pink GIANT SNOWFLAKE® and SNOW GLOBE® <i>Sutera</i>	Vigor 2 Vigor 3	5.5 - 5.8/1.0-2.0	65-72° F (18-22° C)	65-72° F (18-22° C)	50-60° F (10-16° C) outdoors	Moderate to Moist	Early Spring through Summer Finish. Standard Plants Per Container.	For 4-5", 4-6; for 6"/gallon, 5-7; for 8", 7-9; for 10-12", 8-10	Last to go outside
A-PEEL® <i>Thunbergia</i>	Vigor 4	5.8 - 6.2/.6-.9	65-72° F (18-22° C)	70-80° F (21-27° C)	65-70° F (18-21° C)	Moderate	Spring through Fall Finish. Standard Plants Per Container.	For 4-5", 5-7; for 6"/gallon, 7-9; for 8", 8-10; for 10-12", 10-12	Last to go outside
CATALINA® and SUMMER WAVE® <i>Torenia</i>	Vigor 2 Vigor 3	5.5 - 6.2/.6-.9	65-72° F (18-22° C)	70-75° F (21-24° C)	70-75° F (21-24° C)	Moderate to Moist	Spring through Summer Finish. Standard Plants Per Container.	For 4-5", 4-6; for 6"/gallon, 5-7; for 8", 7-9; for 10-12", 10-12	Do not finish outside
SUPERBENA® <i>Verbena</i>	Vigor 3	5.8 - 6.2/.6-.9	65-72° F (18-22° C)	65-72° F (18-22° C)	50-60° F (10-16° C) outdoors	Moderate to Moist	Early Spring through Fall Finish. Standard Plants Per Container.	For 4-5", 4-6; for 6"/gallon, 5-7; for 8", 7-9; for 10-12", 8-10	Last to go outside
TUKANA® <i>Verbena</i>	Vigor 3	5.5 - 6.2/.6-.9	65-72° F (18-22° C)	60-70° F (16-21° C)	40-50° F (4-10° C) outdoors	Moderate to Moist	Early Spring through Fall Finish. Standard Plants Per Container.	For 4-5", 4-6; for 6"/gallon, 5-7; for 8", 7-9; for 10-12", 10-12	Last to go outside
METEOR SHOWER® <i>Verbena</i>	Vigor 3	5.5 - 6.2/.6-.9	65-70° F (18-21° C)	65-72° F (18-22° C)	50-60° F (10-16° C)	Moderate to Moist	Spring through Fall Finish. 4" container - 1PPPP 6" container - 1-3PPPP 10" or larger - 3-5PPPP	For 4-5", 5-6; for 6"/gallon, 8-10; for 10-12", 10-12	Second to go outside

VIGOR KEY – 1 to 4, with 1 representing the slower, smaller growers and 4 representing the quickest, largest growers.
For combinations, choose varieties with the same vigor rating to ensure success.

Online Cultural Guide

When you have growing questions, you can access our **online growing guide** for answers.

By providing easy, 24/7 access to this information, we save you time – and money – so you can spend it tending to business and building that business, too.

Grower Culture on provenwinners.com

- Culture search by variety
 - Culture groups
 - New variety culture
- Flowering timing charts
 - Outdoor growing tips
 - Perennial timing

Cultural Information and Growing Tips

To produce the highest quality plant material, growers must have detailed crop culture information. In order to help our grower customers produce the best finished crops, our propagators have developed this user-friendly guide which categorizes plants by their basic cultural needs – pH, growing temperature, and fertilization. The goal is to aide our grower customers in setting up custom growing environments for plants grouped by their basic needs. Visit provenwinners.com for more detailed cultural information on all Proven Winners varieties.

Proven Winners® Annuals

Growing Temp	A pH 5.5 - 5.8	B pH 5.8 - 6.2	C pH 6.0 - 6.5
A 55°-65° F (12-18° C)	Superbells® <i>Calibrachoa</i> , Sunsatia® and other <i>Nemesia</i> , Supertunia® <i>Petunia</i>	Butterfly <i>Argyranthemum</i> , Campfire® Fireburst and Goldilocks Rocks® <i>Bidens</i> , Sundaze® Golden Beauty® <i>Bracteantha</i> , Lady Godiva™ Orange <i>Calendula</i> , Flirtation® <i>Diascia</i> , Karalee® and Stratosphere™ <i>Gaura</i> , Beth’s Blue® <i>Isotoma</i> , Lemon Drop® <i>Oenothera</i> , Symphony, Soprano® and Bright Lights™ <i>Osteospermum</i> , Intensia® <i>Phlox</i> , Ablazin’® <i>Salvia</i> and Rockin’™ <i>Salvia</i>	Silver Bullet™ <i>Artemisia</i> , Pink Chablis® and Purple Chablis™ <i>Lamium</i> , Princess and Knight <i>Lobularia</i>
B 65°-72° F (18-22° C)	Pegasus® <i>Begonia</i> , Pink Wonder®, New Wonder®, and Whirlwind® <i>Scaevola</i> , and Snowstorm® <i>Sutera</i> (Bacopa)	Artist® <i>Ageratum</i> , Surefire® <i>Begonia</i> , Toffee Twist <i>Carex</i> , Señorita Rosalita®, Señorita Blanca®, Señorita Mi Amor® and Pequeña Rosalita® <i>Cleome</i> , Mystic and Dahlightful® <i>Dahlia</i> , Diamond Frost® and Diamond Delight® <i>Euphorbia</i> , Hello!™ <i>Gerbera</i> , Rockapulco® <i>Impatiens</i> , Blue Mohawk® <i>Juncus</i> , Laguna™ and Lucia® <i>Lobelia</i> , Charmed® <i>Oxalis</i> , Vertigo® <i>Pennisetum</i> , Sunbini™ <i>Sanvitalia</i> , Lemon Coral™ <i>Sedum</i> , Superbena®, Tukana® and Meteor Shower® <i>Verbena</i>	Artful® Caladium, Flambé® <i>Chrysocephalum</i> , Fairy Dust™ <i>Cuphea</i> , ColorBlaze® Coleus, Baby Tut®, King Tut® and Prince Tut™ <i>Cyperus</i> , Boldly® and Timeless™ <i>Pelargonium</i> , Mojave® <i>Portulaca</i>
C 70°-75° F (21-24° C)		Angelface® <i>Angelonia</i> , Hippo™ <i>Hypoestes</i> , Luscious® <i>Lantana</i> , GoldDust® <i>Mecardonia</i> , ‘Fireworks’, Purple Fountain Grass, Red Riding Hood, and ‘Sky Rocket’ <i>Pennisetum</i> , Fiber Optic Grass <i>Scirpus</i> , A-Peel® <i>Thunbergia</i> , Catalina® and Summer Wave® <i>Torenia</i>	Endless™ <i>Browallia</i> , Vermillionaire® <i>Cuphea</i> , Blue My Mind® <i>Evolvulus</i> , Illusion® and Sweet Caroline <i>Ipomoea</i> , Infinity® and Ruffles™ <i>New Guinea Impatiens</i>

In growing group codes, the first letter represents the Growing Temp and the second letter represents the pH.

Fertilizer rate for all plants listed above is 150-200 Constant Liquid Feed (CLF) with the following exceptions:

75-100 CLF
Endless™ *Browallia*
Artful® *Caladium*
100-150 CLF
Sundaze® *Bracteantha*
Toffee Twist *Carex*
Rockapulco® *Impatiens*
Ruffles™ and Infinity® *New Guinea Impatiens*
‘Fireworks’, Purple Fountain Grass, Red Riding Hood, ‘Sky Rocket’ and Vertigo® *Pennisetum*
Mojave® *Portulaca*
Sunbini™ *Sanvitalia*
Fiber Optic Grass *Scirpus*
Lemon Coral™ *Sedum*

100-200 CLF
Hello!™ *Gerbera*
130-150 CLF
Princess and Knight *Lobularia*
200-300 CLF
Toucan™ *Canna*
Señorita Rosalita®, Señorita Blanca®, Señorita
Mi Amor® and Pequeña Rosalita® *Cleome*
Illusion® and Sweet Caroline *Ipomoea*
Boldly® and Timeless™ *Pelargonium*
Intensia® *Phlox*
Supertunia® *Petunia*
A-Peel® *Thunbergia*

Culture Notes and Groups:

pH:

- A: pH 5.5-5.8
- B: pH 5.8-6.2
- C: pH 6.0-6.5

EC:

- A: < .6
- B: .6-.9
- C: 1.0-2.0

Well-Balanced Fertilizer

N-P-K, 2:1:1.5 with adequate amounts of micronutrients
Low: 100-150 ppm Constant Liquid Feed
Medium: 150-200 ppm Constant Liquid Feed
High: 200-300 ppm Constant Liquid Feed

Fertilizer Disclaimer:

It is a good practice to clear water (leach) once every 3-4 times you water to lower soluble salt levels in the media. EC should also be monitored using weekly EC measurements.

Rooting Out Temperatures:

The first 10 days of container growth: establishing root system to outside edge of container from the newly planted liner.
65-72° F (18-22° C)

Growing Temperatures:

Once roots are to the edge of the container – growing on the plant and bulking up foliage and flowers.
A: 55-65° F (12-18° C)
B: 65-72° F (18-22° C)
C: 70-75° F (21-24° C)
Night temperatures should be run 5° F (-15° C) lower than day temperatures

Holding Temperatures:

(For toning crops and/or for when you have to hold the crop when it is ready to go)
A: 40-50° F (4-10° F) outdoors*
B: 50-60° F (10-16° F)
C: Maintain Growing Temperatures

Light Levels:

High: Full sun crops need very high, bright light
Moderate: Sun to partial shade crops, High to moderate light
Low: Partial to full shade crops, Moderate to low light

Moisture Regimes:

Transplant:

Water lightly to maintain moisture level within root zone until roots reach the side of the finished container. Once roots are developed to the side of the pot, see finish watering regime.

Finish Watering Regimes:

- A: Dry to Moderate: Water thoroughly without over-saturating; keep moist during root development; allow soil surface to dry completely before watering after the crop is rooted to the edge of the pot.
- B: Moderate to Moist: Water thoroughly without over-saturating; keep moist but not wet throughout entire growth cycle.
- C: Moist to Wet: Water thoroughly and keep moisture constant throughout entire growth cycle.

Standard Plants Per Pot (PPP):

- 4-5": 1 ppp
- 6": 1-2 ppp
- Gallon: 1-3 ppp
- 8": 3 ppp
- 10-12": 3-5 ppp

More cuttings per pot will yield faster finishing times. The higher light and temperatures experienced with summer production will dramatically reduce crop times.

Soil Mix for Container Growing:

Use a high-quality, professional grade soil mix that is adjusted to work with your water quality and growing style to help manage pH and water control.

Use a well-drained, high-quality professional grade soil mix. A peat-lite based soil or equivalent that gives you 60% organic matter and 40% secondary aggregates, such as perlite, rock-wool, coir, and/or bark, will provide proper soil porosity (well-drained soil).

Growth Regulator Disclaimer:

All PGR rates should be trialed by each individual grower before applications are made to entire crop to ensure desired results. All rates are given as a spray unless otherwise stated. Summer production may require higher PGR rates when crops are grown indoors. Proven Winners and its affiliates are not responsible for misapplication or misuse of these products. Check manufacturers' labels for approved rates and usage recommendations.

Pest Management:

A weekly scouting program is suggested. Monitor for common greenhouse pests. Treat accordingly, using label instructions. Be sure to rotate chemical classes to guard against development of resistance to chemicals.

Disease Management:

Treat with preventative broad spectrum fungicidal drench one week after transplant. Scout crops regularly (at least once a week) for disease development. Good air circulation, control of humidity, and good sanitation practices are critical. Good sanitation practices include keeping greenhouses clean at all times, eliminating weeds and debris, disinfecting equipment and greenhouses as often as possible, and keeping hose ends off the floor. Good water management practices are critical to healthy plant growth.

Day Neutral:

Ability of plants to flower freely regardless of day-length.

Vernalization:

Crop quality and flower number and presentation for perennial plants often will be improved with a cold treatment.

Spring Outdoor Finish:

Many Proven Winners crops can be finished outdoors under cool temperatures. Finishing under cool temperatures will allow you to expand production area, allows additional spacing inside greenhouse, allows additional turns, and improves quality of the product. Those plants finished outdoors will need additional time to finish. Specific finishing times are difficult to predict due to variability in weather patterns. Outdoor mum production areas are perfect to use as spring cold temperature finishing space.

Before plants are moved outside, they should be acclimated to colder temperatures using holding temperatures stated above.

Ideally, plants should be moved outdoors on an overcast day, with moderate temperatures, little wind, and no severe cold (freezing temperatures) forecasted for the next 24 hours. Often a full moon will mean clear skies, which will allow temperatures to drop more than expected. To maintain proper nutrition after a heavy rain, a light water application with 400-500 ppm N can be used on the already wet plants (this high fertilizer application on dry plants will result in burn).

Plants vary in ability to withstand cold temperature finishing. To help you manage when crops can be placed outdoors, we have split our plant material into 3 groups (Not all crops can be finished outdoors and will be noted as No). In the case of unusually cold temperatures, you should have frost protection measures ready (frost cloth, sprinklers, or ability to move plants under cover).

It is generally too cold for insects and disease to prosper. You should continue to scout for problems, however, chemical control measures probably won't be needed. Plant growth regulators will not be needed to control growth.

Growers who wish to try this method of finishing plants should trial a small portion of their plant material the first year to gain experience and comfort. Each year will differ and growers need to be prepared to adapt as conditions change.

A: First to go outside – 33-36° F (0-2° C):

These plants can be placed outside the earliest. When temperatures are not forecasted to drop below freezing for the next 10 days you should be able to move these plants outdoors. Should the temperature be forecasted to drop below 28° F (-2° C), protection measures should be taken.

B: Second to go outside – 38-42° F (3-5° C):

This is the second wave of plant material. These plants can be moved outside when odds are that temperatures are much less likely to drop below freezing. Protection measures should be taken for this group when temperatures are forecasted to reach 32° F (0° C). Average daily temperatures should be higher than when group A material was moved out. Generally, a few weeks after group A is moved out, group B can be moved outside.

C: Last to go outside – 45° F + (7° C +):

This is the third wave of plant material. These plants can be moved outside when temperatures are no longer likely to reach freezing. A hard frost will cause damage to this group. If a hard frost is forecasted, protection measures should be implemented.

For questions please call the grower hotlines:

Nordic Nurseries – 604.607.7074

Ed Sobkowich Greenhouses – 905.945.8870



Need help? Give us a call.

We're totally committed to helping you grow quality crops.

* Sometimes this temperature is indoors when prompted not to finish the plants outdoors.

Index

Acalypha pendula Firetail Chenille Plant	116	Dahlia Mystic Dreamer	118	Lamium galeobdolon Hermann's Pride	122	Phlox INTENSIA® Series	84
Ageratum ARTIST® Series	26	Mystic Illusion	45	Lamium maculatum PINK CHABLIS®	62	Plectranthus coleoides Variegata	128
Agrostis stolonifera Green Twist	116	DAHLIGHTFUL® Series	46	PURPLE CHABLIS™	62	Portulaca grandiflora MOJAVE® Series	85
Anagallis 'Wildcat Blue'	116	Diascia FLIRTATION® Series	47	Lantana camara LUSCIOUS® Series	60	Salvia COLOR SPIRES® 'Violet Riot'	111
'Wildcat Mandarin'	116	Draecaena indivisa Spikes	118	Lavandula angustifolia SWEET ROMANCE®	108	ROCKIN'™ Series	87
Angelonia ANGELFACE® Series	28	Euphorbia DIAMOND DELIGHT®	48	Leucantheum AMAZING DAISIES® Series	109	Salvia elegans Golden Delicious	128
ANGELFACE® Super Series	28	DIAMOND FROST®	48	Lobelia erinus LAGUNA™ Series	63	Salvia guaranitica Black & Blue	128
Argyranthemum frutescens GOLDEN BUTTERFLY™	27	Evolvulus BLUE MY MIND®	49	LUCIA® Series	63	Salvia splendens ABLAZIN'® Series	86
PURE WHITE BUTTERFLY™	27	Felicia Forever Blue	118	Lobularia BLUSHING PRINCESS®	64	Sanvitalia speciosa SUNBINI™	86
VANILLA BUTTERFLY®	27	Ferns Hardy Ferns	120	DARK KNIGHT™	64	Scaevola NEW WONDER®	88
Artemisia stelleriana SILVER BULLET™	26	Tropical Ferns	120	FROSTY KNIGHT®	64	PINK WONDER®	88
SILVER CASCADE®	116	Fuchsia SHADOW DANCERS® Series	120	SNOW PRINCESS®	64	WHIRLWIND® Series	88
Begonia benariensis SUREFIRE® Series	30	Eruptions	120	WHITE KNIGHT®	64	Sedum mexicanum LEMON CORAL™	89
Begonia PEGASUS®	30	Wilma Verslot	120	Lophospermum LOFOS® Series	122	Solenostemon scutellarioides (Coleus) COLORBLAZE® Series	90
BELLECONIA™ Series	116	Gaura KARALEE® Petite Pink	50	Lysimachia congestiflora WALKABOUT SUNSET®	122	Proven Selections varieties	128
SOLENIA® Series	116	STRATOSPHERE™ Series	50	Lysimachia nummularia Goldilocks	122	Streptocarpella Concord Blue	130
SUMMERWINGS® Series	116	Gerbera HELLO!™ Series	51	Mecardonia GOLDDUST®	65	Strobilanthes Persian Shield	130
Reiger Series	118	Glechoma hederacea Dappled Light	120	Muehlenbeckia Big Leaf	122	Succulents Aeonium varieties	130
Bidens BEE DANCE® Series	118	Glechoma variegata Variegated Creeping Charlie	120	Small Leaf	124	Crassula varieties	130
CAMPFIRE® Fireburst	31	Grasses (Annual) GRACEFUL GRASSES® Series	52	Nemesia fruticans Bluebird	67	Echeveria varieties	130
GOLDILOCKS ROCKS®	31	Hedera Glacier	120	Opal INNOCENCE®	67	Graptopetalum pentandrum	130
Brachyscome BLUE ZEPHYR™	118	Golden Ingot	120	Nemesia JUICY FRUITS® Series	124	Vera Higgins Graptosedum	130
Bracteantha bracteata SUNDAZE® GOLDEN BEAUTY®	33	Ritterkreuz	120	SUNSATIA® Series	66	Fred Ives Graptoveria	130
Browallia ENDLESS® Series	32	Teardrop	120	Nepeta faassenii 'Cat's Meow'	110	Kalanchoe varieties	132
Caladium hortulanum ARTFUL® Series	34	White Ripple	120	New Guinea Impatiens INFINITY® Series	68	Blue Chalk Sticks Kleinia	132
Calceolaria Golden Yellow	118	Yellow Ripple	120	RUFFLES™ Series	68	Lampranthus deltoides	132
Calendula LADY GODIVA™ Orange	33	Helichrysum petiolare Licorice Splash	122	Oenothera LEMON DROP®	70	Chinese Duncce Cap Orostachys	132
Calibrachoa MILLION BELLS® Series	118	Petit Licorice	122	Osteospermum BRIGHT LIGHTS™ Series	70	Sedum varieties	132
SUPERBELLS® Series	35	White Licorice	122	SOPRANO® Series	71	Kalinda Sempervivium	132
Canna x generalis TOUCAN™ Series	41	Helichrysum thianschanicum Icicles	122	SYMPHONY Series	71	String of Pearls Senecio	132
Chrysocephalum apiculatum FLAMBÉ® Yellow	42	Heliopsis TUSCAN GOLD™	107	Oxalis regnellii CHARMED® Wine	72	Sutera cordata SNOWSTORM® Series	92
Cleome PEQUEÑA ROSALITA®	42	'Tuscan Sun'	107	Oxalis vulcanicola MOLTEN LAVA™	124	Thunbergia alata A-PEEL® Series	93
SEÑORITA BLANCA®	42	Heliotrope arborescens Fragrant Blue	122	ZINFANDEL™	124	Torenia CATALINA® Series	94
SEÑORITA MI AMOR®	42	Marine	122	Pelargonium BOLDLY®	73	SUMMER WAVE® Series	95
SEÑORITA ROSALITA®	42	Heuchera Blackcurrant	122	DAREDEVIL®	124	Trifolium repens DARK DANCER™	132
Coleus (see Solenostemon)		DOLCE® Series	104	TIMELESS™	74	Verbena LANAI® Series	134
Cosmos astrosanguineus Choca Mocha	118	Key Lime Pie	122	Perilla frutescens Magellanica	124	SUPERBENA® Series	96
Cuphea VERMILLIONAIRE®	44	PRIMO™ Series	106	Petunia CRAZYTUNIA® Series	124	SUPERBENA® Picasso Series	78
Cuphea ilavea TINY MICE®	118	Hypoestes phyllostachya HIPPO™ Series	55	SUPERTUNIA® Series	75	SUPERBENA® Mini Series	79
Cuphea ramosissima FAIRY DUST™ Pink	44	Impatiens walleriana ROCKAPULCO® Series	56	SUPERTUNIA® Charm Series	80	SUPERBENA® Vista Series	81
Cuphea rosea Lavender Lace	118	Ipomoea batatas Black Heart	122	SURFINIA® Series	126	Verbena bonariensis METEOR SHOWER®	102
		Blackie	122			Veronica MAGIC SHOW® Series	112
		ILLUSION® Series	57			Vinca major Wojo's Jem	134
		Margarita	122			Vinca minor Illumination	134
		SWEET CAROLINE Series	57				
		Tricolor	122				
		Isotoma BETH'S BLUE®	62				