

# HARRIS SEEDS BEDDING PLANT AND CUT FLOWER CULTURAL GUIDE

*Tips for Producing Pack, Pot, Container Crops, and Cut Flowers from Seeds and Plugs*

## HOW TO USE THIS GUIDE

This information is to be used as a general guide only. In particular, the “Number of Weeks to Finish” may vary for individual crops due to environmental differences and cultural practices. Links to breeder websites are provided, when available, to access cultural information specific to the variety in question.

## GERMINATION REQUIREMENTS

We suggest using a separate germination area to create the ideal conditions. Proper soil temperature and moisture are essential for optimum seed germination. Always begin with sterile, well-drained, high quality [seed starting media](#). Maintain strict sanitation practices in all germination and production areas.

### ***Germ. Temp. °F***

This refers to the recommended soil temperature in °F. Normal greenhouse temperatures are usually not high enough to provide the soil temperatures needed for seed starting. Generally air temperature is about 5° F higher than soil temperature. Therefore, one must provide additional, controlled bottom heat for proper seed germination. In order to accomplish this, a germination area should include [heat mats, heat cables](#), under bench heating, or another method of applying heat.

### ***Light/Dark***

Many vegetable and flower seeds require light for germination, so [proper lighting](#) in the germination area is required for best results. Some seeds germinate best in darkness. Covering the seed with a layer of vermiculite or seed starting media will provide darkness and also help maintain moisture around the seeds. Generally, very tiny seeds should not be covered. Also, seeds that require light should not be covered at all, or may be covered very lightly to help maintain moisture.

### ***Days to Germ.***

The indicated range is the average number of days to germinate for most varieties within the genus or species. Seedlings can be removed from the germination area after this time, or as soon as the majority of the seeds have

germinated. Seedlings left in the germination area too long are prone to stretching. Providing adequate and uniform moisture is critical. Do not allow flats to become waterlogged, as seeds do need oxygen to germinate. Either cover your flats with clear plastic domes, or provide a mist system. Plastic covers can be removed under sunny/warm conditions to prevent soil temperatures from rising too high and damaging the seed.

### **GROWING ON TEMPERATURE °F DAY/NIGHT**

Optimum day and night temperature ranges are provided for growing on your plants once they leave the germination chamber, for example 66-75/64-66. Use a sterile, well-drained, soilless transplanting mix, and keep plants well-spaced during the growing-on stages. A production area should include a mist system to maintain proper humidity levels, and any artificial lighting should be placed within approx. 2-3” from the plants to ensure that the seedlings do not stretch.

### **NUMBER OF WEEKS TO FINISH**

General time guidelines are provided for producing crops from seed and various plug/liner sizes. This information will vary depending on crop, environment, region of the country, and cultural practices. Note that the finish time is shorter for larger plug sizes because they have had a longer growing period before being shipped (the lower the number of plugs per tray, the larger the plant). Finish times for field cut flower are included. Be sure to keep records on sow dates, weather conditions, cultural practices, and harvest dates for future reference.

# HARRIS SEEDS PERENNIAL CULTURAL GUIDE

rev. 12/2015

ACHILLEA (YARROW)	Germination Requirements			Growing on Temperatures	
	Germ Temp, °F	Light/Dark	Days to Germ	°F, Day/Night	
	65-70	L	10-15	50-60	
<b>Variety</b>	<b>Link to Breeder Website for Specific Cultural Information:</b>				
Summer Pastels	<a href="http://www.takii.com">http://www.takii.com</a>				
Flowerburst Red Shades	<a href="http://www.takii.com">http://www.takii.com</a>				
<b>General Cultural Information:</b>					
Cover very lightly w/fine vermiculite (for moisture control), needs light to germinate. Reduce soil temperature slightly at night during germination. Sowings made from late October to early December can be ready for blooming sales from April to June. Sowings made in February will produce saleable green packs (32 cells per flat) in about 9 weeks at 50°F night temperature. First year flowering. See Harris Seeds Perennial Chart for flower details, bloom time, and hardiness zones:					
<a href="#">Perennial Chart</a>					
<b>Number of Weeks to Finish From:</b>	<b>Plug Crop Weeks</b>	<b>To:</b>	<b>Pack</b>	<b>Pot, 4" (1 ppp)</b>	<b>Container, 10" (1ppp)</b>
Seed	-		10-12	14-15	17-18
288 Tray	-		4-6	8-9	11-12
200 Tray	6-8		3-5	7-8	10-11
128 Tray	-		2-4	6-7	9-10
Baby Burly (125 Tray					
Vernalized/Nonvernalized)	-		-	6-7	9-10
72 Tray	-		-	5-6	8-9
Burly Jr. (70 Tray					
Vernalized/Nonvernalized)	-		-	4-5	5-8
36 Tray	-		-	4-5	7-8
Big Burly (32 Tray Vernalized)	-		-	-	3-8

AGASTACHE	Germination Requirements			Growing on Temperatures	
	Germ Temp, °F	Light/Dark	Days to Germ	°F, Day/Night	
	68-72	-	5-10	60-70/	
<b>Variety</b>	<b>Link to Breeder Website for Specific Cultural Information:</b>				
Arizona Mix	<a href="http://www.takii.com">http://www.takii.com</a>				
Astello Indigo	-				
<b>General Cultural Information:</b>					
Cover very lightly w/fine vermiculite (for moisture control). Provide uniform moisture levels during germination and after transplanting. Temperatures can be lowered as seedlings mature. First year flowering. Days to flower from sow: long days 13-15 weeks, short days 17-20 weeks. See Harris Seeds Perennial Chart for flower details, bloom time, and hardiness zones:					
<a href="#">Perennial Chart</a>					
<b>Number of Weeks to Finish From:</b>	<b>Plug Crop Weeks</b>	<b>To:</b>	<b>Pack</b>	<b>Pot, 4" (1 ppp)</b>	<b>Container, 10" (1-3 ppp)</b>
Seed	-		7-9	9-12	11-14
288 Tray	4-5		-	5-7	7-9
128 Tray	-		-	3-5	5-8
Baby Burly (125 Tray					
Vernalized/Nonvernalized)	-		-	3-5	5-8
72 Tray	-		-	2-4	4-8
Burly Jr. (70 Tray					
Vernalized/Nonvernalized)	-		-	2-4	4-8
36 Tray	-		-	2-4	4-8
Big Burly (32 Tray Vernalized)	-		-	-	3-8

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<a href="#">AQUILEGIA (COLUMBINE)</a>	Germination Requirements			Growing on Temperatures	
	Germ Temp, °F	Light/Dark	Days to Germ	°F, Day/Night	
	70-72	L	8-10	65-68/60-65	
<b>Variety</b>	<b>Link to Breeder Website for Specific Cultural Information:</b>				
Origami Mixture F1	<a href="http://www.goldsmithseeds.com">http://www.goldsmithseeds.com</a>				
<b>General Cultural Information:</b>					
Cover very lightly w/fine vermiculite (for moisture control), needs light to germinate. Provide uniform moisture levels. Can be vernalized once root system is established after 6-8 weeks: reduce night temps to 40-45°F. Transplant at 9-10 weeks. Increase night temps. First year flowering. See Harris Seeds Perennial Chart for flower details, bloom time, and hardiness zones: <a href="#">Perennial Chart</a>					
<b>Number of Weeks to Finish From:</b>	<b>Plug Crop Weeks</b>	<b>To:</b>	<b>Pack</b>	<b>Pot, 4" (1 ppp)</b>	<b>Container, 10" (1-3 ppp)</b>
Seed	-		16-18	20-24	-
288 Tray	9-10		9-11	11-13	13-15
128 Tray	-		7-9	9-11	11-13
Baby Burly (125 Tray					
Vernalized/Nonvernalized)	-		7-9	9-11	11-13
72 Tray	-		-	8-10	10-12
Burly Jr. (70 Tray					
Vernalized/Nonvernalized)	-		-	5-7	7-9
36 Tray	-		-	7-9	9-11
Big Burly (32 Tray Vernalized)	-		-	-	3-8

<a href="#">COREOPSIS (TICKSEED)</a>	Germination Requirements			Growing on Temperatures	
	Germ Temp, °F	Light/Dark	Days to Germ	°F, Day/Night	
	68-72	-	5-7	60-70/55-60	
<b>Variety</b>	<b>Link to Breeder Website for Specific Cultural Information:</b>				
Presto	-				
Sunfire	<a href="http://www.panamseed.com">http://www.panamseed.com</a>				
<b>General Cultural Information:</b>					
Cover very lightly w/fine vermiculite (for moisture control). Sow 1-2 seeds per cell in 288 tray; 2-4 seeds per cell in larger plug tray. Provide uniform moisture levels. Reduce soil temperature at night slightly during germination stage. Coreopsis is long-day crop with critical day length from 12.5 to 14 hours. Flowers 8-10 weeks after transplanting. First year flowering. See Harris Seeds Perennial Chart for flower details, bloom time, and hardiness zones: <a href="#">Perennial Chart</a>					
<b>Number of Weeks to Finish From:</b>	<b>Plug Crop Weeks</b>	<b>To:</b>	<b>Pack</b>	<b>Pot, 4" (1 ppp)</b>	<b>Container, 10" (1-3 ppp)</b>
Seed	-		12-14	14-16	18-20
288 Tray	5-6		5-7	7-9	11-13
128 Tray	-		3-5	5-7	9-11
Baby Burly (125 Tray					
Vernalized/Nonvernalized)	-		3-5	5-7	9-11
72 Tray	-		-	4-6	8-10
Burly Jr. (70 Tray					
Vernalized/Nonvernalized)	-		-	3-4	5-8
36 Tray	-		-	3-5	7-9
Big Burly (32 Tray Vernalized)	-		-	-	3-8

**USDA Hardiness Zone Map**

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CRASPEDIA	Germination Requirements			Growing on Temperatures
	Germ Temp, °F	Light/Dark	Days to Germ	°F, Day/Night
	64-68	-	10-14	54-64
<b>Variety</b>	<b>Link to Breeder Website for Specific Cultural Information:</b>			
Billy Buttons (Cut Flower)	<a href="http://www.panamseed.com">http://www.panamseed.com</a>			
<b>General Cultural Information:</b>				
Cover very lightly w/vermiculite (for moisture control). Provide uniform moisture levels. Transplant outdoors after danger of frost is past. Space on 9" centers for cut flower production. First year flowering. See Harris Seeds Perennial Chart for flower details, bloom time, and hardiness zones: <a href="#">Perennial Chart</a>				
<b>Number of Weeks to Finish From:</b>	<b>Plug Crop Weeks</b>	<b>To:</b>	<b>Pack</b>	<b>Pot, 4" (1 ppp)</b>
Seed	-		8-10 (green)	11-15
128 Tray	6-8		-	5-7
Approx. Weeks to Flower for Field Cut Flower: 17-18				
				Container, 10" (1-3 ppp)
				15-17
				8-10
				-

DELPHINIUM, CUT FLOWER	Germination Requirements			Growing on Temperatures
	Germ Temp, °F	Light/Dark	Days to Germ	°F, Day/Night
	65-75	-	7-20	60-75/45-60
<b>Variety</b>	<b>Link to Breeder Website for Specific Cultural Information:</b>			
Guardian Mix F1	<a href="http://www.panamseed.com">http://www.panamseed.com</a>			
Aurora Mix F1	<a href="http://www.takii.com">http://www.takii.com</a>			
Magic Fountains Mix	<a href="http://www.benary.com">http://www.benary.com</a>			
<b>General Cultural Information:</b>				
Cover seed w/fine vermiculite for moisture control. Provide uniform but not saturated moisture levels. Germination often is not uniform. About a week before transplant, lower temps. to 65-70°F to help tone plants. February to May plantings will flower during the summer and fall. For greenhouse production, sow seeds in the fall (Oct. to Dec.) for a March to May flowering time. Best suited to 6-in. to 8-in. pot production. Use 1 plug for either size. For cuts plant in 10 x 10" space (annual production) or 20 x 20" (perennial production). First year flowering. See Harris Seeds Perennial Chart for flower details, bloom time, and hardiness zones: <a href="#">Perennial Chart</a>				
<b>Number of Weeks to Finish From:</b>	<b>Plug Crop Weeks</b>	<b>To:</b>	<b>Pack</b>	<b>Pot, 4" (1 ppp)</b>
Seed	-		-	13-19
288 Tray	5-7		-	8-12
128 Tray	-		-	6-10
Baby Burly (125 Tray				
Vernalized/Nonvernalized)	-		-	6-10
72 Tray	-		-	4-8
Burly Jr. (70 Tray				
Vernalized/Nonvernalized)	-		-	4-8
36 Tray	-		-	3-5
Big Burly (32 Tray Vernalized)	-		-	-
Approx. Weeks to Flower for Field Cut Flower: 16-23				
				Container, 10" (1-3 ppp)
				17-23
				12-16
				10-14
				10-14
				8-12
				8-12
				7-9
				3-8
				-



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<a href="#">DIGITALIS (FOXGLOVE), CUT FLOWER</a>	Germination Requirements			Growing on Temperatures	
	Germ Temp, °F	Light/Dark	Days to Germ	°F, Day/Night	
	65-70	L	6-9	60-65/45-55	
<b>Variety</b>	<b>Link to Breeder Website for Specific Cultural Information:</b>				
Candy Mountain	<a href="http://www.takii.com">http://www.takii.com</a>				
Camelot Mix F1	<a href="http://www.goldsmithseeds.com">http://www.goldsmithseeds.com</a>				
<b>General Cultural Information:</b>					
Cover very lightly w/fine vermiculite (for moisture control), needs light to germinate. Provide uniform moisture levels. Reduce soil temperature at night during germination. Camelot Mix F1 is first year flowering. Harvest for cuts when the lower 1/3 of flowers have opened. See Harris Seeds Perennial Chart for flower details, bloom time, and hardiness zones: <a href="#">Perennial Chart</a>					
<b>Number of Weeks to Finish From:</b>	<b>Plug Crop Weeks</b>	<b>To:</b>	<b>Pack</b>	<b>Pot, 4" (1 ppp)</b>	<b>Container, 10" (1-3 ppp)</b>
Seed	-		-	19-21	20-24
288 Tray	4-6		-	14-16	16-20
128 Tray	-		-	12-14	13-16
Baby Burlly (125 Tray					
Vernalized/Nonvernalized)	-		-	12-14	13-16
72 Tray	-		-	11-13	12-15
Burly Jr. (70 Tray					
Vernalized/Nonvernalized)	-		-	11-13	12-15
36 Tray	-		-	10-12	11-14
Big Burlly (32 Tray Vernalized)	-		-	-	3-8
Approx. Weeks to Flower for Field Cut Flower: 20-24					

<a href="#">ECHINACEA (CONEFLOWER)</a>	Germination Requirements			Growing on Temperatures	
	Germ Temp, °F	Light/Dark	Days to Germ	°F, Day/Night	
	68-76	L	8-20	65-75/60-65	
<b>Variety</b>	<b>Link to Breeder Website for Specific Cultural Information:</b>				
Pow Wow Series	<a href="http://www.panamseed.com">http://www.panamseed.com</a>				
Primadonna Deep Rose (Cut Flower)	<a href="http://www.benary.com">http://www.benary.com</a>				
Cheyenne Spirit Mix (Cut Flower)	<a href="http://www.panamseed.com">http://www.panamseed.com</a>				
<b>General Cultural Information:</b>					
Cover very lightly with vermiculite for moisture control. Light is optional. Provide uniform moisture levels. Reduce soil temperature at night slightly during germination stage. Sow by January for spring flowering. First year flowering (except Primadonna). See Harris Seeds Perennial Chart for flower details, bloom time, and hardiness zones: <a href="#">Perennial Chart</a>					
<b>Number of Weeks to Finish From:</b>	<b>Plug Crop Weeks</b>	<b>To:</b>	<b>Pack</b>	<b>Pot, 4" (1 ppp)</b>	<b>Container, 10" (1-3 ppp)</b>
Seed	-		10-12 (green)	14-16	18-23
288 Tray	5-6		4-6 (green)	8-10	13-17
128 Tray	-		2-4 (green)	6-8	10-13
Baby Burlly (125 Tray					
Vernalized/Nonvernalized)	-		-	6-8	10-13
72 Tray	-		-	5-7	9-12
Burly Jr. (70 Tray					
Vernalized/Nonvernalized)	-		-	5-7	9-12
36 Tray	-		-	4-6	8-10
Big Burlly (32 Tray Vernalized)	-		-	-	3-8
Approx. Weeks to Flower for Field Cut Flower: 18-23					

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<a href="#">ECHINOPS (GLOBE THISTLE)</a>	Germination Requirements			Growing on Temperatures	
	Germ Temp, °F	Light/Dark	Days to Germ	°F, Day/Night	
	65-72	L	14-20	60-65/55-60	
<b>Variety</b>					
Ritro (Cut Flower)	<a href="http://econseeds.com/">http://econseeds.com/</a>				
<b>General Cultural Information:</b>					
Sow on media surface and do NOT cover with vermiculite, needs light to germinate. Keep media slightly moist, but not wet for germination. Seed sown in January will be ready for sale in late April to early May. Plants will not bloom the same season they were sown. Plants sown in June - August will bloom the following July to August. See Harris Seeds Perennial Chart for flower details, bloom time, and hardiness zones: <a href="#">Perennial Chart</a>					
<b>Number of Weeks to Finish From:</b>	<b>Plug Crop Weeks</b>	<b>To:</b>	<b>Pack</b>	<b>Pot, 4" (1 ppp)</b>	<b>Container, 10" (1-3 ppp)</b>
Seed	-		8-12 (green)	10-14 (green)	18-22
288 Tray	4-6		4-6	6-8	14-16
128 Tray	-		2-4	4-6	12-14
Baby Burly (125 Tray Vernalized/Nonvernalized)	-		2-4	4-6	12-14
72 Tray	-		-	3-4	6-10
Burly Jr. (70 Tray Vernalized/Nonvernalized)	-		-	3-4	6-10
36 Tray	-		-	3-4	10-12
Big Burly (32 Tray Vernalized)	-		-	-	3-8
Approx. Weeks to Flower for Field Cut Flower: 48-52					

<a href="#">ERYNGIUM (SEA HOLLY)</a>	Germination Requirements			Growing on Temperatures	
	Germ Temp, °F	Light/Dark	Days to Germ	°F, Day/Night	
	72-75	-	7-10	60-70	
<b>Variety</b>					
Blue Glitter (Cut Flower)	<a href="http://www.benary.com">http://www.benary.com</a>				
<b>General Cultural Information:</b>					
Cover very lightly w/fine vermiculite (for moisture control). For bedding production, transplant to pots 6-9 weeks after germination. For cut flower production, transplant green plants into field with 12 x 16" spacing. Sow December-March for flowering plants from June-August, or July-August for larger flowering plants in the following year. For cut flower production warmer temperatures result in longer stem length. Temperatures near 75° yield long strong stems. First year flowering. See Harris Seeds Perennial Chart for flower details, bloom time, and hardiness zones: <a href="#">Perennial Chart</a>					
<b>Number of Weeks to Finish From:</b>	<b>Plug Crop Weeks</b>	<b>To:</b>	<b>Pack</b>	<b>Pot, 4" (1 ppp)</b>	<b>Container, 10" (1-3 ppp)</b>
Seed	-		9-13 (green)	16-20 (green)	24-28
288 Tray	6-9		3-4	10-13	18-22
128 Tray	-		3-4	10-11	18-20
Baby Burly (125 Tray Vernalized/Nonvernalized)	-		3-4	10-11	18-20
72 Tray	-		-	4-6	6-9
Burly Jr. (70 Tray Vernalized/Nonvernalized)	-		-	4-6	6-9
36 Tray	-		-	-	3-8
Big Burly (32 Tray Vernalized)	-		-	-	3-8
Approx. Weeks to Flower for Field Cut Flower: 24-28					

**Frequently Asked Questions**

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GAILLARDIA (BLANKET FLOWER)	Germination Requirements			Growing on Temperatures	
	Germ Temp, °F	Light/Dark	Days to Germ	°F, Day/Night	
	68-75	L	8-12	59-70/50-65	
<b>Variety</b>					
Link to Breeder Website for Specific Cultural Information:					
Arizona Series	<a href="http://www.benary.com">http://www.benary.com</a>				
Mesa Peach F1	<a href="http://www.panamseed.com">http://www.panamseed.com</a>				
<b>General Cultural Information:</b>					
Cover very lightly w/fine vermiculite (for moisture control), needs light to germinate. Reduce soil temperature at night during germination period. Provide uniform moisture levels. Sown in January as Spring production, will flower naturally in late May to early June. Sown from July to early September for overwinter production, will flower late April of the following year. First year flowering. See Harris Seeds Perennial Chart for flower details, bloom time, and hardiness zones: <a href="#">Perennial Chart</a>					
<b>Number of Weeks to Finish From:</b>	<b>Plug Crop Weeks</b>	<b>To:</b>	<b>Pack</b>	<b>Pot, 4" (1 ppp)</b>	<b>Container, 10" (1-3 ppp)</b>
Seed	-		10-12	13-15	16-22
288 Tray	5-7		5-6	7-8	11-14
128 Tray	-		3-5	5-6	7-8
Baby Burly (125 Tray					
Vernalized/Nonvernalized)	-		3-5	5-6	7-8
72 Tray	-		-	4-5	5-6
Burly Jr. (70 Tray					
Vernalized/Nonvernalized)	-		-	4-5	5-6
36 Tray	-		-	4-5	5-6
Big Burly (32 Tray Vernalized)	-		-	-	3-8

GAURA	Germination Requirements			Growing on Temperatures	
	Germ Temp, °F	Light/Dark	Days to Germ	°F, Day/Night	
	65-68	-	5-6	59-70/50-64	
<b>Variety</b>					
Link to Breeder Website for Specific Cultural Information:					
Sparkle White	<a href="http://www.panamseed.com">http://www.panamseed.com</a>				
<b>General Cultural Information:</b>					
Cover seed very lightly w/fine vermiculite for moisture control. Maintain 95%+ relative humidity (RH) until radicles emerge. Increase temp. to 66-70 degrees after germination, reduce soil moisture slightly. Sown in January for Spring production, will flower naturally in early May to early June. Sown in July to early September for overwinter production, will flower mid to late May of the following year. Note: Gaura seed is a nutlet and may have up to 4 seeds, so there may be greater than one seedling per cell. For cold production (55° F) add 4-5 weeks onto finishing times. First year flowering. See Harris Seeds Perennial Chart for flower details, bloom time, and hardiness zones: <a href="#">Perennial Chart</a>					
<b>Number of Weeks to Finish From:</b>	<b>Plug Crop Weeks</b>	<b>To:</b>	<b>Pack</b>	<b>Pot, 4" (1 ppp)</b>	<b>Container, 10" (1-3 ppp)</b>
Seed	-		8-10	12-14	13-16
288 Tray	5-6		3-4	7-8 (@68° F)	8-10 (@68° F)
Big Burly (32 Tray Vernalized)	-		-	-	3-8



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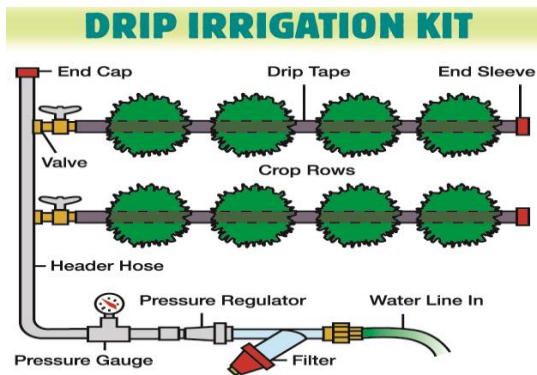
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GRASS, ORNAMENTAL	Germination Requirements			Growing on Temperatures	
	Germ Temp, °F	Light/Dark	Days to Germ	°F, Day/Night	
	64-75	L	5-12	66-74/64-66	
<b>Variety</b>	<b>Link to Breeder Website for Specific Cultural Information:</b>				
Blue Arrows (Juncus)	<a href="http://www.panamseed.com">http://www.panamseed.com</a>				
Sirocco (Stipa)	<a href="http://www.panamseed.com">http://www.panamseed.com</a>				
<b>General Cultural Information:</b>					
Do not cover seed, needs light to germinate. Keep soil moisture high until emergence, then reduce, maintaining medium moisture conditions. See Harris Seeds Perennial Chart for flower details, bloom time, and hardiness zones: <a href="#">Perennial Chart</a>					
<b>Number of Weeks to Finish From:</b>	<b>Plug Crop Weeks</b>	<b>To:</b>	<b>Pack</b>	<b>Pot, 4" (1 ppp)</b>	<b>Container, 10" (1-3 ppp)</b>
Seed	-		11-14	11-14	11-14
288 Tray	5-7		6-8	6-8 (3 ppp)	6-8 (3 ppp)
128 Tray	-		4-6	4-6 (3 ppp)	4-6 (3 ppp)
72 Tray	-		4-6	4-6 (3 ppp)	4-6 (3 ppp)

GYPSOPHILA (BABY'S BREATH)	Germination Requirements			Growing on Temperatures	
	Germ Temp, °F	Light/Dark	Days to Germ	°F, Day/Night	
	64-70	L	7-10	60-65/50-58	
<b>Variety</b>	<b>Link to Breeder Website for Specific Cultural Information:</b>				
Snowflake (Cut Flower)	<a href="http://econseeds.com/">http://econseeds.com/</a>				
<b>General Cultural Information:</b>					
Cover very lightly w/fine vermiculite (for moisture control). Provide uniform moisture levels. For cut flower production, transplant into field in green stage. Requires vernalization to flower - approx. 8 weeks with a temperature below 39° F. Sowing in early July will give natural flowering from late April to May the following year. See Harris Seeds Perennial Chart for flower details, bloom time, and hardiness zones: <a href="#">Perennial Chart</a>					
<b>Number of Weeks to Finish From:</b>	<b>Plug Crop Weeks</b>	<b>To:</b>	<b>Pack</b>	<b>Pot, 4" (1 ppp)</b>	<b>Container, 10" (1-3 ppp)</b>
Seed	-		12-14 (green)	14-16 (green)	18-20
288 Tray	5-6		6-8	8-10	12-14
128 Tray	-		4-6	6-8	10-12
Baby Burlly (125 Tray					
Vernalized/Nonvernalized)	-		4-6	6-8	10-12
72 Tray	-		-	5-7	9-11
Burlly Jr. (70 Tray					
Vernalized/Nonvernalized)	-		-	5-7	9-11
36 Tray	-		-	4-6	8-10
Big Burlly (32 Tray Vernalized)	-		-	-	3-8
Approx. Weeks to Flower for Field Cut Flower: 40-46					



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HELIOPSIS	Germination Requirements			Growing on Temperatures	
	Germ Temp, °F	Light/Dark	Days to Germ	°F, Day/Night	
	65-75	-	10-14	65-70/60-62	
<b>Variety</b>	<b>Link to Breeder Website for Specific Cultural Information:</b>				
Summer Sun (Cut Flower)	<a href="http://econseeds.com/">http://econseeds.com/</a>				
<b>General Cultural Information:</b>					
Cover seed very lightly w/fine vermiculite for moisture control. Provide uniform but not saturated moisture levels. A January/February sowing will produce spring saleable plants. First year flowering. See Harris Seeds Perennial Chart for flower details, bloom time, and hardiness zones: <a href="#">Perennial Chart</a>					
<b>Number of Weeks to Finish From:</b>	<b>Plug Crop Weeks</b>	<b>To:</b>	<b>Pack</b>	<b>Pot, 4" (1 ppp)</b>	<b>Container, 10" (1-3 ppp)</b>
Seed	-		12-14	14-16	16-18
288 Tray	-		4-6	6-8	8-10
128 Tray	9		3-5	5-7	7-9
Baby Burly (125 Tray					
Vernalized/Nonvernalized)	-		3-5	5-7	7-9
Burly Jr. (70 Tray					
Vernalized/Nonvernalized)	-		-	-	5-8
36 Tray	-		-	3-5	5-8
Big Burly (32 Tray Vernalized)	-		-	-	3-8
Approx. Weeks to Flower for Field Cut Flower:	17-19		-	-	-

HIBISCUS	Germination Requirements			Growing on Temperatures	
	Germ Temp, °F	Light/Dark	Days to Germ	°F, Day/Night	
	68-70	-	5-7	70-85/65-70	
<b>Variety</b>	<b>Link to Breeder Website for Specific Cultural Information:</b>				
Luna Mix	<a href="http://www.panamseed.com">http://www.panamseed.com</a>				
<b>General Cultural Information:</b>					
Cover very lightly w/fine vermiculite (for moisture control). Provide uniform moisture levels. Grow on under high light levels if possible. If seed is sown when day length is less than 14 hours, use additional lighting to promote flowering. First year flowering. See Harris Seeds Perennial Chart for flower details, bloom time, and hardiness zones: <a href="#">Perennial Chart</a>					
<b>Number of Weeks to Finish From:</b>	<b>Plug Crop Weeks</b>	<b>To:</b>	<b>Pack</b>	<b>Pot, 4" (1 ppp)</b>	<b>Container, 10" (1-3 ppp)</b>
Seed	-		-	9-11	12-15
128 Tray	3-4		-	7-9	9-11
Baby Burly (125 Tray					
Vernalized/Nonvernalized)	-		-	7-9	9-11
36 Tray	-		-	5-7	7-9
Big Burly (32 Tray Vernalized)	-		-	-	3-8



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<a href="#">HOLLYHOCK</a>	Germination Requirements			Growing on Temperatures	
	Germ Temp, °F	Light/Dark	Days to Germ	°F, Day/Night	
	65-75	-	10-15	65-70/55-60	
<b>Variety</b>	<b>Link to Breeder Website for Specific Cultural Information:</b>				
Spring Celebrities Mix	<a href="http://www.panamseed.com">http://www.panamseed.com</a>				
<b>General Cultural Information:</b>					
Cover very lightly w/fine vermiculite for moisture control. Provide uniform moisture levels. First year flowering. See Harris Seeds Perennial Chart for flower details, bloom time, and hardiness zones: <a href="#">Perennial Chart</a>					
<b>Number of Weeks to Finish From:</b>	<b>Plug Crop Weeks</b>	<b>To:</b>	<b>Pack</b>	<b>Pot, 4" (1 ppp)</b>	<b>Container, 10" (1-3 ppp)</b>
Seed	-		8-11	12-15	15-17
288 Tray	-		4-6	8-9	11-12
128 Tray	4-5		4-6	8-10	11-12
Baby Burly (125 Tray Vernalized/Nonvernalized)	-		4-6	8-10	11-12
Burly Jr. (70 Tray Vernalized/Nonvernalized)	-		-	7-9	9-11
36 Tray	-		-	5-7	-
Big Burly (32 Tray Vernalized)	-		-	-	3-8

<a href="#">KNAUTIA, CUT FLOWER</a>	Germination Requirements			Growing on Temperatures	
	Germ Temp, °F	Light/Dark	Days to Germ	°F, Day/Night	
	66-70	-	10-14	50-55	
<b>Variety</b>	<b>Link to Breeder Website for Specific Cultural Information:</b>				
Melton Pastels	<a href="http://www.thompson-morgan.com/">http://www.thompson-morgan.com/</a>				
<b>General Cultural Information:</b>					
Cover very lightly w/fine vermiculite (for moisture control). Provide uniform moisture levels. Grow on as cool as possible, shading from extremes of sunlight. Sow from May to July for flowering plants in June the following year or sow in January for a late flowering crop in July/August. See Harris Seeds Perennial Chart for flower details, bloom time, and hardiness zones: <a href="#">Perennial Chart</a>					
<b>Number of Weeks to Finish From:</b>	<b>Plug Crop Weeks</b>	<b>To:</b>	<b>Pack</b>	<b>Pot, 4" (1 ppp)</b>	<b>Container, 10" (1-3 ppp)</b>
Seed	-		12-14 (green)	16-18 (green)	-
Big Burly (32 Tray Vernalized)	-		-	-	3-8
Approx. Weeks to Flower for Field Cut Flower: 32-52					

<a href="#">KNIPHOFIA, CUT FLOWER</a>	Germination Requirements			Growing on Temperatures	
	Germ Temp, °F	Light/Dark	Days to Germ	°F, Day/Night	
	65-72	L	14-20	60-65	
<b>Variety</b>	<b>Link to Breeder Website for Specific Cultural Information:</b>				
Flamenco	<a href="http://www.benary.com">http://www.benary.com</a>				
<b>General Cultural Information:</b>					
Do not cover seed, needs light to germinate. After germination cover very lightly w/fine vermiculite for moisture control. Provide uniform moisture levels. Transplant to pots 3-4 weeks after germination. Sow January for flowering in pots from July onwards, June-August for flowering in pots the following year. First year flowering. Cut when two lowest flower tubes on spike are fully open. See Harris Seeds Perennial Chart for flower details, bloom time, and hardiness zones: <a href="#">Perennial Chart</a>					
<b>Number of Weeks to Finish From:</b>	<b>Plug Crop Weeks</b>	<b>To:</b>	<b>Pack</b>	<b>Pot, 4" (1 ppp)</b>	<b>Container, 10" (1-3 ppp)</b>
Seed	-		-	12-14 (green)	18-20
288 Tray	8		-	4-6	10-12
128 Tray	-		-	2-4	8-10
36 Tray	-		-	2-3	6-8
Approx. Weeks to Flower for Field Cut Flower: 28-36					

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LAVENDER	Germination Requirements			Growing on Temperatures
	Germ Temp, °F	Light/Dark	Days to Germ	°F, Day/Night
	65-72	L	4-20	60-72/55-65
<b>Variety</b>	<b>Link to Breeder Website for Specific Cultural Information:</b>			
Hidcote Blue	<a href="http://www.benary.com">http://www.benary.com</a>			
Mini Blue	<a href="http://www.panamseed.com">http://www.panamseed.com</a>			
<b>General Cultural Information:</b>				
Lavender is sometimes slow to germinate, thus prechilling the seed at 40-45°F. for 3-4 weeks may help germination. Cover very lightly w/fine vermiculite (for moisture control). Provide uniform moisture levels. Sow January-March for green pots, June-August for flowering in pots the following year. Crop time is 10-12 months. Vernalization is required for flower initiation. After vernalization, begin forcing plants at temperatures of 60-65 °F for 6-7 weeks under long days to promote flowering. See Harris Seeds Perennial Chart for flower details, bloom time, and hardiness zones: <a href="#">Perennial Chart</a>				
<b>Number of Weeks to Finish From:</b>	<b>Plug Crop Weeks</b>	<b>To:</b>	<b>Pack</b>	<b>Pot, 4" (1 ppp)</b>
Seed	-		11-17	14-20
288 Tray	5-9		6-8	9-11
128 Tray	-		4-6	7-9
Baby Burly (125 Tray Vernalized/Nonvernalized)	-		4-6	7-9
Burly Jr. (70 Tray Vernalized/Nonvernalized)	-		-	6-8
36 Tray	-		-	5-7
Big Burly (32 Tray Vernalized)	-		-	-
				18-23
				13-14
				11-12
				11-12
				7-9
				9-10
				3-8

LEUCANTHEMUM (SHASTA DAISY)	Germination Requirements			Growing on Temperatures
	Germ Temp, °F	Light/Dark	Days to Germ	°F, Day/Night
	65-75	-	9-14	65-70/58-60
<b>Variety</b>	<b>Link to Breeder Website for Specific Cultural Information:</b>			
Crazy Daisy (Cut Flower)	<a href="http://www.benary.com">http://www.benary.com</a>			
Snow Lady F1	<a href="http://www.sakata.com">http://www.sakata.com</a>			
<b>General Cultural Information:</b>				
Cover seed very lightly w/fine vermiculite for moisture control. Provide uniform but not saturated moisture levels. Snow Lady F1 is first year flowering. Sow time January-April for green pots and cut flower production outdoors; June-August for flowering in pots the following year; June-August for cut flower production indoors with wintering. Vernalization is required for flower initiation. After vernalization, begin forcing plants at 60-65 °F for 7-8 weeks under long days. See Harris Seeds Perennial Chart for flower details, bloom time, and hardiness zones: <a href="#">Perennial Chart</a>				
<b>Number of Weeks to Finish From:</b>	<b>Plug Crop Weeks</b>	<b>To:</b>	<b>Pack</b>	<b>Pot, 4" (1 ppp)</b>
Seed	-		10-12 (green)	12-14 (green)
288 Tray	6		4-6	6-8
128 Tray	-		2-4	4-6
Baby Burly (125 Tray Vernalized/Nonvernalized)	-		2-4	4-6
Burly Jr. (70 Tray Vernalized/Nonvernalized)	-		-	3-5
36 Tray	-		-	2-4
Big Burly (32 Tray Vernalized)	-		-	-
Approx. Weeks to Flower for Field Cut Flower: 40-52				
				14-16 (green)
				8-10
				6-8
				6-8
				5-7
				4-6
				3-8
				-

<a href="#">LIATRIS (BLAZING STAR)</a>	Germination Requirements			Growing on Temperatures	
	Germ Temp, °F	Light/Dark	Days to Germ	°F, Day/Night	
	65-72	Light/Dark	7-22	55-60/50-55	
<b>Variety</b>	<b>Link to Breeder Website for Specific Cultural Information:</b>				
Spicata (Cut Flower)	<a href="http://hemzaden.com/">http://hemzaden.com/</a>				
<b>General Cultural Information:</b>					
Do not cover seed, needs light to germinate. Reduce soil temperature at night during germination period. Provide uniform moisture levels. Transplant 5-7 weeks after sowing into cells. Seed sown in January will be ready for sale (green) in late April to early May. Plants sown in June - August will bloom the following July to August. See Harris Seeds Perennial Chart for flower details, bloom time, and hardiness zones: <a href="#">Perennial Chart</a>					
<b>Number of Weeks to Finish From:</b>	<b>Plug Crop Weeks</b>	<b>To:</b>	<b>Pack</b>	<b>Pot, 4" (1 ppp)</b>	<b>Container, 10" (1-3 ppp)</b>
Seed	-		9-13 (green)	11-15 (green)	13-17 (green)
288 Tray	5-7		4-6	6-8	8-10
128 Tray	-		2-4	4-6	6-8
Baby Burly (125 Tray Vernalized/Nonvernalized)	-		2-4	4-6	6-8
Burly Jr. (70 Tray Vernalized/Nonvernalized)	-		-	3-5	5-7
36 Tray	-		-	2-4	4-6
Big Burly (32 Tray Vernalized)	-		-	-	3-8
Approx. Weeks to Flower for Field Cut Flower: 48-52			-	-	-

<a href="#">LOBELIA</a>	Germination Requirements			Growing on Temperatures	
	Germ Temp, °F	Light/Dark	Days to Germ	°F, Day/Night	
	64-70	L	14-21	60-65	
<b>Variety</b>	<b>Link to Breeder Website for Specific Cultural Information:</b>				
Fan Scarlet F1	<a href="http://www.benary.com">http://www.benary.com</a>				
Starship Rose F1	<a href="http://www.panamseed.com">http://www.panamseed.com</a>				
<b>General Cultural Information:</b>					
Do not cover seed, needs light to germinate. Provide uniform moisture levels to allow pellets to dissolve. If seed is sown when day length is less than 12 hours, use additional lighting to promote flowering. January-March for flowering in pots from July onwards, August-October for flowering in pots the following year, April-May for cut flower production outdoors. Total crop time is 18-20 weeks. Vernalization is not required for flower initiation. First year flowering. See Harris Seeds Perennial Chart for flower details, bloom time, and hardiness zones: <a href="#">Perennial Chart</a>					
<b>Number of Weeks to Finish From:</b>	<b>Plug Crop Weeks</b>	<b>To:</b>	<b>Pack</b>	<b>Pot, 4" (1 ppp)</b>	<b>Container, 10" (1-3 ppp)</b>
Seed	-		14-16 (green)	16-18 (green)	19-20
288 Tray	10		4-6	6-8	9-10
128 Tray	-		2-4	4-6	7-8
Baby Burly (125 Tray Vernalized/Nonvernalized)	-		2-4	4-6	7-8
Burly Jr. (70 Tray Vernalized/Nonvernalized)	-		-	4-5	6-8
36 Tray	-		-	3-4	5-8
Big Burly (32 Tray Vernalized)	-		-	-	3-8

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LUPINE	Germination Requirements			Growing on Temperatures	
	Germ Temp, °F	Light/Dark	Days to Germ	°F, Day/Night	
	70-75	D	4-15	55-60/50-55	
<b>Variety</b>	<b>Link to Breeder Website for Specific Cultural Information:</b>				
Russell Supreme Mixture	<a href="http://hemzaden.com/">http://hemzaden.com/</a>				
<b>General Cultural Information:</b>					
Soak seed overnight for faster germination. Cover seed with coarse vermiculite, germinates better with darkness. Keep media moist for germination, then reduce soil moisture slightly. Transplant to pots 4-6 weeks after germination. Seed sown in January will be ready for sale in late April to early May. Plants sown in June - August will bloom the following June to July. Plants will not bloom the same season they were sown. See Harris Seeds Perennial Chart for flower details, bloom time, and hardiness zones: <a href="#">Perennial Chart</a>					
<b>Number of Weeks to Finish From:</b>	<b>Plug Crop Weeks</b>	<b>To:</b>	<b>Pack</b>	<b>Pot, 4" (1 ppp)</b>	<b>Container, 10" (1-3 ppp)</b>
Seed	-		11-13	14-16	16-18
288 Tray	4-5		7-9	10-12	12-14
128 Tray	-		6-8	9-11	11-13
Baby Burly (125 Tray Vernalized/Nonvernalized)	-		6-8	9-11	11-13
Burly Jr. (70 Tray Vernalized/Nonvernalized)	-		-	8-10	10-12
36 Tray	-		-	8-10	10-12
Big Burly (32 Tray Vernalized)	-		-	-	3-8

PEROVSKIA (RUSSIAN SAGE)	Germination Requirements			Growing on Temperatures	
	Germ Temp, °F	Light/Dark	Days to Germ	°F, Day/Night	
	68-72	-	7-20	60-65	
<b>Variety</b>	<b>Link to Breeder Website for Specific Cultural Information:</b>				
Taiga	<a href="http://www.panamseed.com">http://www.panamseed.com</a>				
<b>General Cultural Information:</b>					
Cover seed very lightly w/fine vermiculite for moisture control. Provide uniform but not saturated moisture levels. After 8-14 days, drop temp. to 61°F for another 8-14 days. Transplant into cells or pots, keeping soil on dry side. Sow Feb.-April to finish in July-Sept. Flowers 14-16 weeks from transplant. Sow July-Aug. to finish the following May-June. First year flowering. See Harris Seeds Perennial Chart for flower details, bloom time, and hardiness zones: <a href="#">Perennial Chart</a>					
<b>Number of Weeks to Finish From:</b>	<b>Plug Crop Weeks</b>	<b>To:</b>	<b>Pack</b>	<b>Pot, 4" (1 ppp)</b>	<b>Container, 10" (1-3 ppp)</b>
Seed	-		11-14 (green)	19-23	21-25
288 Tray	7-9		4-5	12-14	14-16
128 Tray	-		-	7-10	10-12
Baby Burly (125 Tray Vernalized/Nonvernalized)	-		-	7-10	10-12
Burly Jr. (70 Tray Vernalized/Nonvernalized)	-		-	6-7	9-10
36 Tray	-		-	4-6	6-8
Big Burly (32 Tray Vernalized)	-		-	-	3-8

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RUDBECKIA (BLACK EYED SUSAN)	Germination Requirements			Growing on Temperatures	
	Germ Temp, °F	Light/Dark	Days to Germ	°F, Day/Night	
	85	-	14-20	50-65	
<b>Variety</b>	<b>Link to Breeder Website for Specific Cultural Information:</b>				
Goldsturm (Cut Flower)	<a href="http://www.benary.com">http://www.benary.com</a>				
<b>General Cultural Information:</b>					
Pre-chilling the seed at 40-45°F. for two to four weeks will enhance germination. Cover seed lightly with vermiculite for moisture control. Sow January for flowering in pots from July onwards (limited flowering). Sow June-August for flowering in pots the following year. A chilling period (vernalization) for 10-12 weeks is recommended for flower initiation. See Harris Seeds Perennial Chart for flower details, bloom time, and hardiness zones: <a href="#">Perennial Chart</a>					
<b>Number of Weeks to Finish From:</b>	<b>Plug Crop Weeks</b>	<b>To:</b>	<b>Pack</b>	<b>Pot, 4" (1 ppp)</b>	<b>Container, 10" (1-3 ppp)</b>
Seed	-		12-14 (green)	14-16 (green)	23-25
288 Tray	6-7		5-7	7-9	16-18
128 Tray	-		3-5	5-7	14-16
Baby Burly (125 Tray Vernalized/Nonvernalized)	-		3-5	5-7	14-16
Burly Jr. (70 Tray Vernalized/Nonvernalized)	-		-	4-6	13-15
36 Tray	-		-	2-4	11-13
Big Burly (32 Tray Vernalized)	-		-	-	3-8
Approx. Weeks to Flower for Field Cut Flower: 25-52			-	-	-

SALVIA	Germination Requirements			Growing on Temperatures	
	Germ Temp, °F	Light/Dark	Days to Germ	°F, Day/Night	
	72-77	L	10-21	60-72/50-59	
<b>Variety</b>	<b>Link to Breeder Website for Specific Cultural Information:</b>				
New Dimension Series	<a href="http://www.panamseed.com">http://www.panamseed.com</a>				
<b>General Cultural Information:</b>					
Cover very lightly w/fine vermiculite (for moisture control), needs light to germinate. Provide uniform moisture levels. Sown in mid-March as Spring production will flower naturally in middle to late June. Vernalization not required. Sown from mid to late July for overwintering production will flower late May to early June of the following year. First year flowering. See Harris Seeds Perennial Chart for flower details, bloom time, and hardiness zones: <a href="#">Perennial Chart</a>					
<b>Number of Weeks to Finish From:</b>	<b>Plug Crop Weeks</b>	<b>To:</b>	<b>Pack</b>	<b>Pot, 4" (1 ppp)</b>	<b>Container, 10" (1-3 ppp)</b>
Seed	-		9-12 (green)	11-14	13-17
288 Tray	5-6		4-6	6-8	8-11
128 Tray	-		2-4	4-6	7-9
Baby Burly (125 Tray Vernalized/Nonvernalized)	-		2-4	4-6	7-9
Burly Jr. (70 Tray Vernalized/Nonvernalized)	-		-	2-4	5-7
36 Tray	-		-	2-4	5-7
Big Burly (32 Tray Vernalized)	-		-	-	3-8



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<b>SCABIOSA (PINCUSHION FLOWER)</b>	<b>Germination Requirements</b>			<b>Growing on Temperatures</b>	
	Germ Temp, °F	Light/Dark	Days to Germ	°F, Day/Night	
	60-65	L	10-18	60-65	
<b>Variety</b>	<b>Link to Breeder Website for Specific Cultural Information:</b>				
Fama Deep Blue	<a href="http://www.benary.com">http://www.benary.com</a>				
<b>General Cultural Information:</b>					
Cover very lightly w/coarse vermiculite (for moisture control), needs light to germinate. Provide uniform moisture levels. Once transplanted, keep light levels high to promote flower initiation. Total crop time is 15-20 weeks. For cut flower production, space Fama at 16 x 20" between plants. Cut at bud stage or half-open stage. First year flowering. See Harris Seeds Perennial Chart for flower details, bloom time, and hardiness zones: <a href="#">Perennial Chart</a>					
<b>Number of Weeks to Finish From:</b>	<b>Plug Crop Weeks</b>	<b>To:</b>	<b>Pack</b>	<b>Pot, 4" (1 ppp)</b>	<b>Container, 10" (1-3 ppp)</b>
Seed	-		12-15	14-17	17-19
288 Tray	6-7		6-8	8-10	11-12
128 Tray	-		5-7	7-9	10-11
Baby Burly (125 Tray Vernalized/Nonvernalized)	-		5-7	7-9	10-11
Burly Jr. (70 Tray Vernalized/Nonvernalized)	-		-	4-6	7-8
36 Tray	-		-	4-6	7-8
Big Burly (32 Tray Vernalized)	-		-	-	3-8

<b>VERBASCUM, CUT FLOWER</b>	<b>Germination Requirements</b>			<b>Growing on Temperatures</b>	
	Germ Temp, °F	Light/Dark	Days to Germ	°F, Day/Night	
	65-68	-	4-8	64-67/62-65	
<b>Variety</b>	<b>Link to Breeder Website for Specific Cultural Information:</b>				
Southern Charm F1	<a href="http://www.panamseed.com">http://www.panamseed.com</a>				
<b>General Cultural Information:</b>					
Cover very lightly w/fine vermiculite (for moisture control). Provide uniform moisture levels. Best sold green in 4"+ pots, or in bloom in 1-2 gallon containers (8 to 10-in. pots). No vernalization needed for flowering. Sow Feb.-April to finish May-July. Total crop time is 16-18 weeks. First year flowering. See Harris Seeds Perennial Chart for flower details, bloom time, and hardiness zones: <a href="#">Perennial Chart</a>					
<b>Number of Weeks to Finish From:</b>	<b>Plug Crop Weeks</b>	<b>To:</b>	<b>Pack</b>	<b>Pot, 4" (1 ppp)</b>	<b>Container, 10" (1-3 ppp)</b>
Seed	-		10-12 (green)	13-15	16-18
288 Tray	4-5		5-7	8-10	11-13
128 Tray	-		3-5	6-8	9-11
Baby Burly (125 Tray Vernalized/Nonvernalized)	-		3-5	6-8	9-11
Burly Jr. (70 Tray Vernalized/Nonvernalized)	-		-	5-7	8-10
36 Tray	-		-	4-6	7-9
Big Burly (32 Tray Vernalized)	-		-	-	3-8
Approx. Weeks to Flower for Field Cut Flower: 16-18					

VERBENA, CUT FLOWER	Germination Requirements			Growing on Temperatures	
	Germ Temp, °F	Light/Dark	Days to Germ	°F, Day/Night	
bonariensis	72-75	-	14-21	60-65	
<b>Variety</b>	<b>Link to Breeder Website for Specific Cultural Information:</b>				
Finesse	<a href="http://www.benary.com">http://www.benary.com</a>				
<b>General Cultural Information:</b>					
Soak seed in water 24 hours prior to sowing. Cover very lightly w/fine vermiculite. Verbena germinates best in media that is only slightly moist to dry. Providing long days with additional high intensity lighting will improve flowering response time. Sow Feb-April. Vernalization is not required for flower initiation. First year flowering. See Harris Seeds Perennial Chart for flower details, bloom time, and hardiness zones: <a href="#">Perennial Chart</a>					
Number of Weeks to Finish From:	Plug Crop Weeks	To:	Pack	Pot, 4" (1 ppp)	Container, 10" (1-3 ppp)
Seed	-		10-11	12-14	13-15
288 Tray	5		5-6	7-9	8-10
128 Tray	-		3-4	4-6	6-8
Baby Burly (125 Tray Vernalized/Nonvernalized)	-		3-4	4-6	6-8
Burly Jr. (70 Tray Vernalized/Nonvernalized)	-		-	3-4	5-6
36 Tray	-		-	3-4	5-6
Big Burly (32 Tray Vernalized)	-		-	-	3-8
Approx. Weeks to Flower for Field Cut Flower: 12-14			-	-	-

VERONICA	Germination Requirements			Growing on Temperatures	
	Germ Temp, °F	Light/Dark	Days to Germ	°F, Day/Night	
	65-75	L	10-16	55-65	
<b>Variety</b>	<b>Link to Breeder Website for Specific Cultural Information:</b>				
Blue Bouquet	<a href="http://www.panamseed.com">http://www.panamseed.com</a>				
<b>General Cultural Information:</b>					
Cover very lightly w/fine vermiculite (for moisture control). Provide uniform moisture levels. Transplant into packs approx. 5-6 weeks after sowing. No vernalization required. Sow in Feb-April to finish May-Aug. Total crop time is 19-22 weeks. First year flowering. See Harris Seeds Perennial Chart for flower details, bloom time, and hardiness zones: <a href="#">Perennial Chart</a>					
Number of Weeks to Finish From:	Plug Crop Weeks	To:	Pack	Pot, 4" (1 ppp)	Container, 10" (1-3 ppp)
Seed	-		12-15	15-18	18-21
288 Tray	5-6		7-9	10-12	13-15
128 Tray	-		5-7	8-10	11-13
Baby Burly (125 Tray Vernalized/Nonvernalized)	-		5-7	8-10	11-13
Burly Jr. (70 Tray Vernalized/Nonvernalized)	-		-	6-8	8-10
36 Tray	-		-	6-8	8-10
Big Burly (32 Tray Vernalized)	-		-	-	3-8



**We appreciate your Comments or Feedback!**

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**Harris Seeds Ordering Information**

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