

Planting Guide for Pots and Hanging Baskets

This guide is meant to be simple recommendations. More detailed information about many specific crops can be had by going to the **breeder's websites**. Links to their websites can be found on our website.

The proper use of chemicals whether pesticides, fungicides or growth regulators, is beyond the scope of this summary. Some information can be found on the breeder's sites however more detailed information should be obtained from your state extension service as well as the chemical suppliers themselves.

Soil, water, and growing conditions all vary from one grower to another and temperature and light change so quickly in the spring that it is tough to be very specific in a general guide. The recommendations here are for early May flowering. Normal night temperatures for growing are 58°F to 65°F. This would be considered a moderate temperature. Most crops can be grown at this temperature. In the spring you can turn up the temperature, but not the light. The effect of light and temperatures on some crops can be profound. Quick growing, warmth-loving plants may take twice as long to grow to be ready for Easter, as for the Fourth of July. Crops that really jump with warmer temperatures and more light are marked with an asterisk *; these crops are much easier to grow for later sales (Memorial Day), than for late April - early May sales. The crops listed below are loosely grouped together **by night temperature requirements. VC = 45° to 55 ° F, C=50 ° to 60 ° F, M= 55 ° to 65 ° F, W= 62 ° to 65 ° F.** Daytime temperatures: most everything that isn't being given a cool treatment does best at 62 ° to 75 ° F. The quality of most crops declines when the temperature gets much warmer than 80 ° F.

Most plants do best if started warmer, and then cooled down after they are established. Plants such as New Guinea Impatiens, which are often grown colder than they prefer, can have a problem with over-watering when first planted. If you cannot grow warmer, a solution is to use larger plugs or prefinished pots, which are brought in later, when higher light intensities and daytime temperature dry them out quickly. Some growers are successful by being careful with watering, but this requires a great deal of attention – it is better to grow at the correct temperatures.

Temperature affects the rate of floral development for all crops. Certain long day crops, like Fuchsia, do not set flower until the end of March, and then how long they take to develop and open up is temperature dependent. For Fuchsia, 68° F is optimal. If finished cooler than this, they may be green for Mother's Day. This applies to Trailing Petunias, also. Growing these cold may enhance their quality, but slows flowering.

There are exceptions. Some plants like Osteospermum require a cool treatment. Grown warm for 2 to 3 weeks to get established, and then, for best flowering, it needs to be grown cool (below 60° F nights), for four or five weeks. Osteospermum is best when finished cool (50°F to 60°F). Grow it with your pansies. Lotus is another candidate for being grown cold. Grown warm, it rarely flowers, but is an excellent foliage accent plant; however, grown cool, similar to Osteospermum culture, it flowers profusely with interesting, exotic "beak shaped" flowers (hence the common name "Parrot's Beak"). Lobelia Big Blue can be flowered in a 4" pot if given a cool treatment similar to Osteospermum. Grown in a moderate greenhouse, it won't flower until it gets quite large, later in the season.

Timing for 50-cell trays and Prefinished Pots: The 50-cell trays take two to three weeks less time to finish than the corresponding 102's. Prefinished pots and basket starters take four to five weeks less time to finish than the corresponding 102's. This is based on number of weeks already planted, but is dependent on final growing conditions. The timing for 50 cell trays, marked 50 in the following charts, is correct as stated.

Fertility: The interaction between fertilizer, soil and water as it affects plant nutrition is beyond the scope this brief summary. The best answers are available from specialists, often from fertilizer companies, after they test your water and soil. They can make the best recommendation for which fertilizer, how much, and when for each crop. This includes pH control. Soil pH, lack of fertilizer or too much (too much soluble salts) are the main fertility problems we hear about. That said we are happy to supply the following very general information.

There is no one correct answer for even one variety. Many growers will use "feed" as a means of controlling the growth rate of a plant or to trigger flowering. Some better growers don't start fertilizing until the plants root out to the sides out the containers, or will start with a half strength solution up until that point. Specific water and soil conditions affect what may be the optimal "feed" program for any given crop. That said, the crops listed below are loosely grouped by fertility requirements expressed as PPM of N in a constant feed program. **L = 75-PPM N, M = 100 to 150 PPM N, H = 200 to 250 PPM N, VH = 300 to 350 PPM N.** A hint for heavy and extra heavy "feeders" (i.e. -Trailing Petunias, Geraniums, Osteo's): Combine slow released granular fertilizer with your liquid feed. Feed everything the same moderate **150 PPM** of N from the hose and make up the difference with a slow released granular fertilizer program.

pH affects plant nutrition in how nutrients are both available in the soil and how they are absorbed into the plant. Plant species vary in what is their optimal pH. Generally greenhouse crops can be broken down into 3 broad groups: "acid" loving plants, which grow best at a pH of 5.4 to 6.2 (denoted as "A" on the sheet below) which will often show iron deficiencies at higher pH, and the larger "regular": group (denoted as "R") which prefers a pH of 5.8 to 6.4. Very few plants grow better at a pH above 6.2. Cutting geraniums and New Guineas Impatiens do (Denoted as R+, pH range of 6 to 6.6). The R+ group can show problems with iron toxicity at lower pH (6 and below, some geraniums 6.2 and below). Commonly bag mix is shipped with a pH of 5.8 to 6.2 – perfect for just about everything. The moment it is watered and or fertilized it starts to change depending on the water and fertilizer used. This is why you need your water tested and an understanding of what the fertilizer you use and your water, together, will do to your plants.

Pinching is not required on all pots. Pinching generally delays flowering 2 to 3 weeks, but on many crops increases side branching and over all quality. First pinch is generally 2 –3 weeks after planting, usually leaving 4 to 6 nodes. Last pinch should be done no later than 5 to 7 weeks before sales date. Plants marked N-Y do not have to be pinched, but often are if they get leggy. Additionally, some plants, like Osteospermum, are better not pinched in 4” pots – in order for them to flower at a small size, but are much better if pinched for larger containers – which encourages increased branching. Some fast growing plants do better with 2 pinches (Y-2X).

The number of plants per pot (PPP) suggested works well for most growers. Some growers will use fewer plugs, but start plants earlier, and perhaps give them one or more additional pinches. Generally one additional cutting saves about 1.5-2 weeks of production time and makes a more rounded pot. Larger pot sizes than 10 inch take either more time or more plants per pot. For an example, a 12-inch pot will fill out in two extra weeks compared to a 10-inch pot with the same number of plants or it can be grown in the same time by using one or two extra plants.

Pots marked * respond much better to heat combined with higher light. Pots marked with a double asterisk **, are normally sold green.

***Herbs can be grown cooler, except Rosemary, which need to be grown warm.

PPP = Plants Per Pot WKS = Weeks to Finish

Planting Guide for Pots and Hanging Baskets

SPECIES	CELL SIZE	NIGHT TEMP	PPM	pH	PINCH	4”POTS		6”POTS		8”POTS		10”POTS / HB	
						PPP	WKS	PPP	WKS	PPP	WKS	PPP	WKS
ACALYPHA	102	W	M	R	Y	1	6 to 9	1 to 2	7 to 11	2 to 3	7 to 12	3 to 5	8 to 12
ANGELONIA	102	W	H	A	Y	1	6 to 7	1	8 to 9	2	10 to 1	3 to 4	11 to 12
ARGYRANTHEMUM	102	M	M	R	Y	1	6	2	6 to 8	3	8 to 10	4	10 to 12
BACOPA	102	M	M	A	Y	1	6 to 8	2	7 to 9	3 to 4	10 to 12	3 to 5	12 to 14
BEGONIA Bon Fire /Bell Fire	102	M	M	R	Y	1	5 to 6	1	7 to 8	3	8 to 9	4	9 to 10
BEGONIA-DRAGON WING**	50	W	M	R	N-Y	1**	5 to 6	1	6 to 7	3	6 to 8	3 to 4	7 to 9
BEGONIA-TUBEROUS*	50	C	L	R	N-Y	1	6 to 7	1	8 to 9	3	7 to 9	3 to 4	8 to 11
BIDENS*	102	C	M	R	Y-2X	1	4 to 6	1	5 to 7	3	8 to 10	3	10 to 14
BRACHYCOME	102	C	M	R	Y	1	6 to 7	2	7 to 9	3	10 to 12	5	12 to 16
CALIBRACHOA	102	M	H	A	Y	1	6 to 9	1 to 2	7 to 11	2 to 3	7 to 12	3 to 5	8 to 12
CALITUNIA / PETCHOA	102	M	H	A	Y	1	4 to 6	1 to 2	6 to 8	2 to 3	7 to 12	3 to 5	8 to 12
COLEUS, from cuttings	102	M	L	R	Y	1	4 to 5**	1	6 to 7**	3	7 to 9**	3 to 5	8 to 10**
COLEUS, Kong	50	M	L	R	N-Y	1	2 to 3**	1	3 to 5**	2 to 3	3 to 6**	3 to 4	4 to 7**
CUPHEA	102	C	L to M	R	N	1	6 to 8	1	7 to 10	3	10 to 12	3 to 5	12 to 14
DAHLIA, later flowering	102	M	M	R	N-Y	1	5 to 6	1	8 to 9	2-3	9 to 10		
DICHONDRA**	102	W	M	R	Y	1	5 to 6**	1 to 2	5 to 8**				
DIASCIA	102	VC	M	A	Y	1	5 to 7	1 to 2	7 to 9	3	8 to 10	3 to 4	9 to 11
DRACAENA-SPIKES* **	102	C	M	R	N	1	6 to 10**						
EUPHORBIA Chamaesyce	102	M	M	R	Y	1	5 to 7	1	6 to 9	3	8 to 9	3 to 5	9 to 11
EVOLVULUS*	102	M	M	R	Y	1	6 to 9	2 - 3	7 to 11	2 to 3	10 to 12	3 to 5	12 to 14
FUCHSIA, for early sales	102	M	H	R	Y	1	10 to 12	2	10 to 11	3 to 4	13 to 16	3 to 5	13 to 16
FUCHSIA- for late sales	102	M	H	R	Y	1	6 to 8	1	7 to 10	3 to 4	10 to 12	3 to 4	10 to 12
GALLARDIA	102	M	H	A	Y	1	9 to 10	2 to 3	9 to 12	3	9 to 12	3 to 5	9 to 12
GAURA	102	M	M	R	Y	1	7 to 9	1 to 2	7 to 9	2 to 3	9 to 10	3 to 4	11 to 14
GERANIUM-CUTTING	102 strips	M	H	R+	Y	1	8 to 12	1	9 to 12	3	9 to 12	3	10 to 14
GERANIUM-IVY	102 strips	M	H	R	Y	1	6 to 7	2	7 to 9	3	8 to 10	3 to 5	9 to 12
GERBERA*	102	M	M	R	N	1	6 to 10	1	8 to 12	2 to 3	8 to 12	3 to 5	8 to 12

Planting Guide for Pots and Hanging Baskets

SPECIES	CELL SIZE	NIGHT TEMP	PPM	pH	PINCH	4"POTS		6"POTS		8"POTS		10"POTS / HB	
						PPP	WKS	PPP	WKS	PPP	WKS	PPP	WKS
GERMAN IVY (SENECIO)* **	102	M	M	R	N-Y	1**	4 to 6	1 to 2**	4 to 7	3	6 to 9	3	7 to 10
HELICHRYSUM ICICLES* **	102	W	M	R	Y	1	5 to 6**						
HELICHRYSUM- STRAWFLOWER*	102	W	M	R	Y	1	5 to 6	2	6 to 8	3	7 to 9	5	8 to 12
HELICHRYSUM-LICORICE* **	102	W	M	R	Y	1	5 to 6**	2	5 to 6**	4	8**	6	9**
HELIOTROPE	102	M	M	R	N-Y	1	4**	2	5	3	10 to 12	3 to 5	10 to 14
HERBS, from cuttings**	102	C - W***	M	R	N-Y	1	2 to 4	1 to 3	2 to 4	3	3 to 6	3 to 5	4 to 9
IMPATIENS - NEW GUINEA*	102	W	M	R+	N	1	6 to 8	1	8 to 10	3	9 to 11	5	10 to 12
IMPATIENS -DOUBLE*	102	M	M	R	Y	1	4 to 6	2	5 to 7	3	7 to 9	3 to 5	8 to 10
IPOMOEA* **	102	W	M	R	N	1	3 to 4	1	5 to 6	2	5 to 6	3	6 to 7
JAMESBRITANIA*	102	W	M	A	Y	1	6 to 9	1 to 2	7 to 11	2 to 3	7 to 12	3 to 5	8 to 12
IVY, ENGLISH- Hedera* **	102	C	M	R	N	1	5 to 6	2	6 to 7	3 to 4	7 to 9	4 to 5	9 to 12
LANTANA*	102	W	M	R	Y	1	6 to 7	1 to 3	7 to 8	3 to 4	8 to 10	3 to 5	10 to 12
LAVENDULA	102	W	M	R	Y	1	5 to 7	1 to 2	8 to 9	3 t	9 to 10	4 to 5	9 to 12
LOBELIA- From cutting	102	C	M	R	N	1	6 to 8	2	8 to 10	3 to 4	8 to 11	4 to 5	11 to 12
LOPHOSPERMUM	102	W	H	R	Y	1	5 to 6	2	8 to 9	3	9 to 10	3 to 4	10 to 12
LOTUS **	102	C to M	M	R	Y	1	5 to 6**	2	6 to 8**	3 to 4	9 to 11**	3 to 5	10 to 13**
LYSIMACHIA NUMMULARIA**	102	W	M	R	Y	1	5 to 6**	2	6 to 8**	3 to 4	9 to 11	3 to 5	10 to 13**
MECARDONIA*	102	W	M	R	N-Y	1	5 to 6	1 to 2	6 to 8	2 to 3	7 to 10	3 to 5	10 to 15
NEMESIA, fruticans types Elf and Genta	102	M	M	A	Y	1	5 to 7	2 to 3	7 to 9	3	8 to 10	4 to 5	8 to 11
NEMESIA, strumosa types Nessie and Serengeti	102	M	M	A	N-Y	1	5 to 7	2	7 to 9	3	8 to 10	4 to 5	8 to 10
NIEREMBERGIA	102	M	L	A	N	1	5 to 7	2	6 to 8	3 to 5	8 to 10	5 to 7	10 to 13
OSTEOSPERNUM	102	VC	H	R	N-Y	1	6 to 8	1 to 2	7 to 10	3 to 4	9 to 10	3 to 4	10 to 12
PERILLA* **	102	M	L	R	N-Y	1	4 to 5**	1	5 to 6**	2 to 3	7 to 8**	3 to 4	8 to 10**
PETUNIA-TRAILING	102	C	VH	A	Y	1	4 to 5	1	6 to 7	3	7 to 9	3 to 5	8 to 10
PLECTRANTHUS**	102	M	M	R	Y	1	4 to 5**	1	6 to 7**	3	7 to 9**	3 to 5	8 to 10**
PORTULACA*	102	M	M	R	Y-2x	1	6 to 8	2	7 to 9	3 to 4	8 to 10	4 to 5	10 to 12
SCAEVOLA*	102	M	M	R	Y-2X	1	6 to 8	2	7 to 9	3	10 to 12	5	12 to 16
THUNBERGIA	102	M	M	R	Y	1	4	1 TO 2	5 to 6	2 to 3	5 to 7	3 to 5	7 to 10
TORENIA	102	M	M	R	Y	1	4 to 5	2	5 to 6	3	6 to 9	4 to 5	8 to 10
TROPAEOLUM Nasturtium	102	C	M	R	N	1	5	2	5 to 6	3	6 to 9	4 to 5	9 to 11
VERBENA From cuttings	102	C	M	R	Y-2x	1	4 to 6	1	6 to 8	3 to 4	7 to 10	3 to 4	9 to 12
VINCA VINE* **	102	C	M	R	N-Y	1	6 to 8**						
VIOLA, from cuttings	102	VC	ML	R	Y 1x to 2x	1	7 to 8	2 - 3	8 to 11	3	10 to 14	3 to 5	14 to 16