# Growing Flowers and Vegetables from Seed

## Easiest Cool Season Annuals
Sow in late summer to grow transplants. Set out transplants in late-Sept./early-mid Oct. Plants bloom following spring and die in late spring/early summer.

<table>
<thead>
<tr>
<th>Easiest Cool Season Annuals</th>
<th>Easiest Cool Season Annuals</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pansy, Violas, Johnny Jump Ups</td>
<td>Sweet Williams</td>
</tr>
<tr>
<td>English Daisy</td>
<td>China Pinks</td>
</tr>
<tr>
<td>Wallflower</td>
<td>Annual Phlox (Phlox drummondii)</td>
</tr>
<tr>
<td>Forget Me Nots</td>
<td>Foxglove+</td>
</tr>
<tr>
<td>Chinese Forget Me Nots</td>
<td>Snapdragon+</td>
</tr>
<tr>
<td>Honesty, Money Plant</td>
<td>Larkspur*</td>
</tr>
<tr>
<td>Rocket, Hesperis</td>
<td>California Poppy*</td>
</tr>
<tr>
<td>Dusty Miller</td>
<td></td>
</tr>
</tbody>
</table>

+ = very small seed
* = sow direct – do not transplant well

## Easiest Warm Season Annuals
Sow 4-8 weeks before last frost to grow transplants indoors. Germinate and grow on at temperatures around 70 degrees. Or grow transplants outdoors after mid April with no additional heat. Can also direct sow directly into garden after mid April.

<table>
<thead>
<tr>
<th>Easiest Warm Season Annuals</th>
<th>Easiest Warm Season Annuals</th>
</tr>
</thead>
<tbody>
<tr>
<td>Melampodium*</td>
<td>Salvia splendens</td>
</tr>
<tr>
<td>Marigold*</td>
<td>Salvia coccinea</td>
</tr>
<tr>
<td>Sunflower*</td>
<td>Salvia farinacea – Mealycup sage</td>
</tr>
<tr>
<td>Mexican Sunflower*</td>
<td>Celosia</td>
</tr>
<tr>
<td>Zinnia*</td>
<td>Ageratum</td>
</tr>
<tr>
<td>Gomphrena</td>
<td>Castor Bean*</td>
</tr>
<tr>
<td>Cosmos*</td>
<td>Morning Glory Vine*</td>
</tr>
<tr>
<td>Cleome*</td>
<td>Moonflower Vine*</td>
</tr>
<tr>
<td>Balsam</td>
<td>Cypress Vine*</td>
</tr>
<tr>
<td>Moss Rose, Portulaca</td>
<td>Hyacinth Bean Vine*</td>
</tr>
</tbody>
</table>

* = best choices to direct sow

## Challenging Warm Season Annuals
Small seed are slower growing. Start indoors 10-12 weeks before last frost.

<table>
<thead>
<tr>
<th>Challenging Warm Season Annuals</th>
<th>Challenging Warm Season Annuals</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pentas</td>
<td>Geraniums, Pelargoniums</td>
</tr>
<tr>
<td>Vinca, Periwinkle</td>
<td>Verbena</td>
</tr>
<tr>
<td>Impatiens</td>
<td>Begonia</td>
</tr>
<tr>
<td>Coleus</td>
<td>Nicotiana, Flowering Tobacco</td>
</tr>
<tr>
<td>Petunia</td>
<td></td>
</tr>
</tbody>
</table>
Easiest Perennials

Most will not flower the first year from seed. Easiest to grow by sowing in April to produce transplants without additional heat. Short lived perennials are faster growing but only live 2-3 years, though often self seed in the garden.

**Short Lived Perennials:**
- Coreopsis
- Gaillardia
- Agastache
- Verbena bonariensis
- Columbine
- Hollyhock
- French Hollyhock
- Rose Campion
- Malva sylvestris, French Hollyhock
- Rudbeckia hirta, Black Eyed Susan

**Longer Lived Perennials:**
- Rudbeckia fulgida ‘Goldstrum’
- Purple Coneflower
- Liatris
- Datura, Angel's Trumpet
- Hardy Hibiscus
- 4 O’Clocks
- Butterflyweed, Asclepias
- Cardinal Flower
- Bee Balm
- Shasta Daisy
- Yarrow

Easiest Herbs

Can be grown in containers and transplanted or sown directly in the garden.

**Perennials** – sow in spring
- Chives
- Garlic Chives
- Lemon Balm

**Cool Season Annuals** – sow in late summer or early spring
- Borage (sow direct)
- Cilantro
- Parsley
- Dill
- Chamomile

**Warm Season Annuals** – start early indoors or sow after threat of frost
- Basil
- Stevia
- Perilla
Cool Season Vegetables

Direct Sow
March for spring crops, Sept. for fall crops

Carrots
Radish
Turnips
Mustard
Beets
Rutabaga

Exceptions:
Peas – garden, snow, sugar snap – sow in late Jan – Feb. Spring crop only
Onions – sow from seed in October for harvest following June

Grow Transplants
Sow August for fall crops, February for spring crops. Grow as individual plants. Transplants usually ready to set out 6-8 weeks from sowing.

Broccoli
Cauliflower*
Kale
Collards
Brussel Sprouts
Cabbage
Chinese Cabbage*
Kohlrabi
Pak Choi/Bok Choi
Romaine Lettuce
Swiss Chard

* = do best as fall crops, not recommended for spring

Direct Sow or Grow Transplant
These crops can be sown direct, usually as a patch, or grown as transplants. Transplants usually ready to set out 4-6 weeks from sowing.

Lettuce, loose leaf varieties
Mesclun Mixes
Arugula, Rocket
Spinach
Green Onion

Not Grown From Seed
Potatoes – set out from ‘seed potatoes’ in February
Garlic – set out as cloves in fall

Onions can be grown from seed set out in fall or 'sets' planted in early spring.
Warm Season Vegetables

Grow Transplants – Slow Growing
Sow 6-8 weeks before last frost. Grow as individual plants. Transplants usually ready to set out 6-8 weeks from sowing.

- Tomatoes
- Peppers
- Eggplant

Grow Transplants or Sow Direct
All are quick growing. Start transplants 3-4 weeks before last frost – can sow 2-4 seeds per pot. Or sow direct in hills (3-4 seed per hill) in mid-April. All are very frost sensitive.

- Cucumbers
- Watermelons
- Cantaloupe
- Summer Squash
- Zucchini
- Winter Squash
- Pumpkins
- Gourds (not edible)

Direct Sow Only
Corn – sow late March/early April
Beans (green/pole beans; lima/butter beans) – sow after mid April
Southern peas (crowder peas, black-eye peas) sow late April. Very frost sensitive.

Not Grown From Seed
Sweet Potatoes – set out as rooted cuttings or slips (unrooted cuttings) in late April. Very frost sensitive.

Prepared by:
Charlotte Glen, Horticulture Agent
Pender County Cooperative Extension
http://pender.ces.ncsu.edu/
Feb. 27, 2012