Selecting Plants According to Environmental Conditions
Utah variable growing conditions make growing some flowers difficult
The first plant selection criteria is matching it to your conditions.
If you ignore their adaptability, they are never going to perform well.
Selecting Herbaceous Plants

– Does it grow in my area?
The USDA divides Utah into several hardiness zones running from Zone # 3 in northern mountains to Zone # 8 in the southern part of the state.
Selecting Herbaceous Plants

Find out what plant hardiness zone you live in

http://www.usna.usda.gov/Hardzone/ushzmap.html

Most plant books have a copy of the zone map in them
Zones 2-10 in the map are subdivided into light- and dark-colored sections (a and b) that represent 5°F (2.8°C) differences within the 10°F (5.6°C) zone. The light color of each zone represents the colder section; the dark color, the warmer section.
Hardiness Zones

Most flower books and some catalogs have a picture of the zone map in them.
Hardiness Zones

The average annual frost-free days and minimum winter temperatures determine zones
There are also island zones that, because of elevation differences, are warmer or cooler than the surrounding areas and are given a different zone designation.
Many large urban areas carry a warmer zone designation than the surrounding countryside. The map contains as much detail as possible, considering the vast amount of data on which it is based and its size.
Localized Data

http://climate.usu.edu/

Freeze Dates
<table>
<thead>
<tr>
<th>Zone</th>
<th>Last Frost Date</th>
<th>First Frost Date</th>
<th>Number of frost free days</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>June 15</td>
<td>July 15</td>
<td>30</td>
</tr>
<tr>
<td>2</td>
<td>May 15</td>
<td>August 15</td>
<td>90</td>
</tr>
<tr>
<td>3</td>
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<td>September 15</td>
<td>120</td>
</tr>
<tr>
<td>4</td>
<td>May 10</td>
<td>September 15</td>
<td>125</td>
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<td>5</td>
<td>April 30</td>
<td>October 15</td>
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<td>6</td>
<td>April 15</td>
<td>October 15</td>
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</tr>
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<td>7</td>
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<td>180</td>
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<tr>
<td>8</td>
<td>March 10</td>
<td>November 15</td>
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<td>February 15</td>
<td>December 15</td>
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<td>10</td>
<td>January 20</td>
<td>December 20</td>
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</tr>
<tr>
<td>11</td>
<td><strong>Frost Free</strong></td>
<td></td>
<td><strong>365</strong></td>
</tr>
</tbody>
</table>
Selecting Herbaceous Plants

The average annual frost-free days and minimum winter temperatures determine zones
Hardiness Zones

- Most of the Wasatch Front falls within zones 4B to 5B. Zones are important when selecting plants from catalogs or nurseries.
Selecting Herbaceous Plants

Attempts at higher zone number plants require significant winter protection or they are annuals
Selecting Herbaceous Plants

Winter temperatures are not the only consideration in choosing perennials. Summer temperatures also influence plant growth and survival.
Selecting Herbaceous Plants

A Plant Heat-Zone Map, similar to the Plant Hardiness Zone Map, divides the U.S. into 12 heat zones based on the average number of days per year above 86 degrees F.
Selecting Herbaceous Plants

Utah is divided into four heat zones:

The map is available online at http://www.ahs.org/publications/heat_zone_map.htm
Selecting Herbaceous Plants

Flowers will grow in their zone as well as two or three zones lower. For example, if you live in zone 5, you can grow plants with 3, 4 and lower numbers with little problem.
An exception to this ‘rule’ involves microclimates that exist and are particular to various sites.
Hardiness Zones

- Microclimates are areas that are unique for their ability to support plants that are technically planted outside of their hardiness zone.
Hardiness Zones

- For example, if you live in hardiness zone 5, there may be areas unique to a particular property that could support zone 6 or 7 plant material.
Another aspect of growing flowers that does not apply to trees and shrubs is mulch.
Hardiness Zones

- Soil only gets so cold so protecting the soil means protecting the plants.
Mulches are often misunderstood. They prevent extremes in soil temperatures.
Hardiness Zones

- Look for specific microclimates that are going to apply to the plants you select
Hardiness Zones

- These areas are usually located where there is some protection during the colder parts of the year.
Hardiness Zones

- Areas protected by buildings, fences, hedges, or other structures or land features can often be one or two planting zones different than other parts of the yard
Hardiness Zones

Because these areas are so unique and individualized, they are often found only after working and observing your flowerbed for several seasons.
When Selecting Herbaceous Plants
How long does it flower, have unusual color or other interest?
Annuals provide color constantly from spring to frost
- Many perennials bloom 1-3 weeks and some have repeat flowerings.
With careful selection, you can have something in flower during spring, summer, and fall
With the addition of plants with winter character (many ornamental grasses and the seedheads of many perennials), the planting can have four seasons of interest.
The End
Come Back Next Week