

**Acton Garden Club  
Horticulture Study Group – Drought-Tolerant Plants  
November 8, 2005**

**Types of Drought -Tolerant Plants:**

**Succulents** – Thick, fleshy stems coated with waxy substance that prevents them from drying out and filled with sap that retains moisture. (Cacti – thick, pulpy stems that are ribbed or segmented. Stems expand when water is available and shrink slowly as the weather becomes dry. Sedum – pores open at night to admit carbon dioxide for growth and close during the day to conserve moisture)

**Grasses (Gramineae family)** – Grain crops, lawn grasses, ornamental grasses, etc. First to sprout on barren, burned or poor soil. Deep roots which seek water, prevent soil erosion. In summer, goes brown, shuts down, store enough food in their roots during drought periods.)

**Legumes (Leguminosae family)** - Deep taproots, take in nitrogen from the air and through a reaction with soil bacteria, convert it to a form that provides nutrients to the plant.

**Poppies (Papaveraceae family)** – Deep taproots, dormant in summer (foliage disappears), divided leaves – less surface area from which water can transpire

**Specific Plants:** Natural Habitats. Choose plants from their native habitats. (Many Indigenous to regions of the Mediterranean climate.)

**Physical Characteristics:**

**Roots** – taproots (Umbelliferae - Carrots, Poppies) or fleshy roots (Hemerocallis - Day Lillies)

**Foliage** – Divided Leaves (reduced area of leaf surface to allow less moisture to transpire), Tiny Hairs (Shade leaf, keep cool, trap water, protect from wind drying), Silvery or Blue Foliage. (Junipers (Juniperus species) – tiny scale like leaves that overlap one another to protect against the drying effects of wind and sun.)

**Plant Habit** – Creeping or Spreading, Ground hugging foliage (closer to source of moisture and out of drying winds)

**Plant Names** – Plants with the species name

which have characteristics of drought-tolerant plants:  
*tomentosum*, *tomentosus*, *pubescens*, *villosus*, or *mollis* have hairy leaves.  
*argentea* have silvery leaves.  
*glauca* implies white or gray cast/coloration on the leaves.  
*hirsuta*, *hirta*, or *hispida* have coarse or stiff hairs.

which have characteristics with good drought resistance:

*angustifolia* – plant has long, narrow leaves.

*filamentosa* – plant has threadlike leaves

*repens*, *reptans*, *horizontalis*, *patens*, *procumbens*, and *divaricatus* means creeping or spreading – many (although not all) are drought tolerant.

*pratensis* or *campestris* are sometimes meadow or field plants.

*arenaria* and *arenarius* means plants growing in sandy places.

*maritimus* means native to the seashore areas.

*alpina* or *alpinus* are plants native to dry mountains.

*aromatica* are plants with aromatic leaves.

Do **NOT** use plants with species names *aquatica* or *palustris* which indicate that they are for wet places.

**Driest of the Dry** – Achillea, Artemisia, Caragana, Centaurea, Hemerocallis, Juniperus, Paeonia, Sedum, Sempervivum, Yucca

		Bulb	Groundcover	Shrub/Tree	Perennial	Herb	Annual
Abies concolor	White fir			Y			
Acaena	New Zealand bur		Y				
Achillea	Yarrow				Y		
Achillea tomentosa	Wooly Yarrow		Y				
Aconitum napellus	Monkshood				Y		
Aegopodium podagraria	Goutweed (Invasive)		Y				
Aesculus parviflora	Bottlebrush Buckeye			Y			
Agastache	Anise-hyssop					Y	
Ajuga reptans	Bugle		Y				
Alchemilla mollis	Lady's mantle		Y				
Allium	Ornamental Onion	Y					
Althaea	Marshmallow				Y		
Amelanchier	Shadbush			Y			
Amelanchier arborea	Common Shadbush			Y			
Amelanchier laevis	Serviceberry			Y			
Amelanchier stolonifera	Running Serviceberry			Y			
Amorpha canescens	Leadplant			Y			
Amsonia	Amsonia				Y		
Anemone	Windflower	Y					
Anemone patens	Prairie crocus				Y		
Anethum	Dill					Y	
Antennaria	Pussytoes		Y		Y		
Anthemis tinctoria	Golden marguerite, chamomile				Y		
Aquilegia	Columbine				Y		
Aralia	Aralia			Y			
Arctostaphylos uva-ursi	Bearberry		Y		Y		
Armeria	Thrift, sea pink				Y		
Armoracia	Horseradish					Y	
Aronia	Chokeberry			Y			
Aronia arbutifolia	Red Chokeberry			Y			
Aronia melanocarpa	Black Chokeberry			Y			
Artemisia	Mugwort, sagebrush		Y				
Asclepias tuberosa	Butterfly weed				Y		
Aster	Aster				Y		
Aurinia saxatilis 'Compacta'	Basket of gold, alyssum		Y				

		Bulb	Groundcover	Shrub/Tree	Perennial	Herb	Annual
Baccharis halimifolia	Groundsel tree			Y			
Baptisia	False indigo				Y		
Boltonia	Boltonia				Y		
Buddleia	Butterfly bush			Y			
Calendula	Pot Marigold					Y	
Calluna vulgaris	Stotch heather		Y				
Campanula	Bellflower		Y		Y		
Caragana	Siberian pea shrub			Y			
Carlina acaulis	Stemless thistle				Y		
Carpinus caroliniana	American Hornbeam			Y			
Carya ovata	Shagbark Hickory						
Caryopteris clandonensis	Blue mist shrub			Y			
Cassia hebecarpa	Wild senna				Y		
Ceanothus americanus	New Jersey Tea						
Cedrus atlantica glauca	Atlas cedar			Y			
Celosia argentea	Plumed Cock's Comb					Y	
Centaurea	Cornflower, bachelor's button				Y		
Centranthus ruber	Red valerian				Y		
Cerastium tomentosum	Snow-in-summer		Y		Y		
Chinodoxa	Glory of the snow	Y					
Chrysanthemum	Chrysanthemum, shasta daisy				Y		
Chrysogonum virginianum	Golden Star		Y				
Chrysanthemum	Chrysanthemum/Costmary					Y	
Clematis virginiana	Virgin's Bower				Y		
Comptonia peregrina	Sweet fern		Y				
Convallaria majalis	Lily of the valley		Y				
Corema conradii	Broom crowberry						
Coreopsis	Coreopsis, tickseed				Y		
Cornus racemosa	Dogwood gray			Y			
Cornus sericea	Red-osier Dogwood			Y			
Cotinus coggygria	Smoke bush/tree			Y			
Cotinus obovatus	Smoke tree			Y			
Cotoneaster	Cotoneaster		Y	Y			
Crocus	Crocus	Y					
Cytisus	Broom			Y			

		Bulb	Groundcover	Shrub/Tree	Perennial	Herb	Annual
Dennstaedtia punctilobula	Hay-scented fern				Y		
Dianthus	Pinks, carnation		Y		Y		
Dictamnus albus	Gas plant				Y		
Diervilla	Bush honeysuckle						
Dryopteris marginalis	Wood fern				Y		
Duchesnea indica	Mock strawberry		Y				
Echinacea	Purple Coneflower				Y	Y	
Echinops ritro	Globe Thistle				Y		
Elaeagnus commutata	Silverberry			Y			
Epilobium	Fireweed				Y		
Epimedium grandiflorum niveum	Barrenwort				Y		
Eranthis	Winter aconite	Y					
Erica	Heather		Y				
Erigeron	Fleabane, Spanish daisy				Y		
Eriogonum ubellatum	Sulfer flower				Y		
Eryngium	Sea holly				Y		
Erysimum allionii	Siberian wallflower				Y		
Erythronium americanum	Trout Lily				Y		
Euonymus	Euonymus			Y			
Eupatorium	Joe Pye Weed				Y		
Euphorbia	Spurge				Y		
Forsythia	Forsythia			Y			
Fritillaria	Fritillaria	Y					
Gaillardia	Blanket flower				Y		
Galanthus	Snowdrop	Y					
Galium odoratum	Sweet woodruff		Y				
Galium verum	Lady's bedstraw					Y	
Gaultheria procumbens	Wintergreen						
Gaura lindheimeri	Whirling butterflies				Y		
Gaylussacia brachycera	Box huckleberry		Y				
Genista				Y			
Genista Pilosa	Broom		Y				
Geranium	Cranesbill		Y		Y		
Gillenia trifoliata	Bowman's Rout						
Ginkgo biloba	Ginkgo			Y			

		Bulb	Groundcover	Shrub/Tree	Perennial	Herb	Annual
Gomphrena globosa	Red Gomphrena					Y	
Gramineae	Grasses		Y				
Gyposophila pniculata	Baby's breath				Y		
Halesia caroliniana	Silver-bell			Y			
Halesia tetraptera	Carolina Silverbell			Y			
Hedeoma	Penny Royal				Y		
Helianthemum nummularium	Sun rose				Y		
Helianthus	Sunflower				Y		
Heliopsis helianthoides scabra	Sunflower Heliopsis				Y		
Hemerocallis	Daylily		Y				
Heptacodium miconioides	Seven son flower			Y			
Hesperis matronalis	Dame's rocket				Y		
Heuchera	Alumroot, Corelbells				Y		
Hibiscus syriacus	Rose of Sharon			Y			
Hudsonia	False heather			Y			
Hydrangea quercifolia	Oakleaf Hydrangea			Y			
Hypericum buckleyi	Blue ridge St. Johnswort		Y				
Hypericum prolificum	Shrubby St. Johnswort			Y			
Hypoxis hirsuta	Star grass		Y		Y		
Hyssopus officinalis	Hyssop					Y	
Iberis sempervirens	Candytuft		Y				
Ilex glabra	Inkberry			Y			
Ilex opaca	American Holly			Y			
Indigofera kirilowii	Indigo Fern				Y		
Iris	Iris, flag				Y		
Itea virginiana	Sweetspire			Y			
Jasione perennis	Shepherd's bit				Y		
Juniperus	Juniper		Y	Y			
Kalmia angustifolia	Sheep laurel			Y			
Kalmia latifolia	Mountain laurel			Y			
Kerria japonica	Japanese rose kerria			Y			
Knautia macedonica	Crimsos scabious				Y		
Kniphofia uvaria	Red Hot Poker				Y		
Kolkwitzia amabilis	Beauty bush			Y			
Lamium galeobdolon	Yellow archangel		Y				

		Bulb	Groundcover	Shrub/Tree	Perennial	Herb	Annual
Lamium maculatum	Spotted dead nettle		Y				
Lavandula	Lavender					Y	
Leiophyllum buxifolium	Sandmyrtle						
Lespedeza	Bush clover			Y			
Leucothoe	Leucothoe			Y			
Levisticum officinale	Lovage					Y	
Lewisia	Lewisia				Y		
Liatris	Blazing star, gayfeather				Y		
Lilium	Lily	Y					
Limonium latifolium	Sea lavender				Y		
Linum	Flax				Y		
Liquidambar styraciflua	American Sweetgum			Y			
Lupinus	Lupin				Y		
Lychnis	Campion				Y		
Malva moschata	Musk mallow				Y		
Monarda	Beebalm				Y		
Muscari	Grape Hyacinth	Y					
Myrica pennsylvanica	Bayberry			Y			
Narcissus	Daffodil, narcissus, jonquil	Y					
Nepeta	Catmint		Y				
Oenothera	Evening primrose				Y		
Opuntia	Cactus, prickly pear				Y		
Oxydendron arboreum	Sourwood			Y			
Paeonia	Peony				Y		
Panicum virgatum	Switchgrass				Y		
Papaver	Poppy				Y		
Penstemon	Beardtongue				Y		
Perovskia atriplicifolia	Russian sage				Y		
Philadelphus	Mock Orange			Y			
Phlox subulata	Phlox moss						
Physocarpus opulifolius	Ninebark			Y			
Picea pungens glauca	Colorado Blue Spruce			Y			
Pinus	Pine		Y	Y			
Pityopsis falcata	Sickle leaved aster				Y		
Platycodon grandiflorus	Balloon flower				Y		

		Bulb	Groundcover	Shrub/Tree	Perennial	Herb	Annual
<i>Polygonatum odoratum</i>	Solomon's seal				Y		
<i>Polystichum acrosticoides</i>	Christmas Fern				Y		
<i>Populus tremuloides</i>	Quaking Aspen			Y			
<i>Porteranthus</i>	Bowman's root				Y		
<i>Potentilla</i>	Cinquefoil		Y	Y			
<i>Potentilla tridentata</i>	Three-leaved Cinquefoil						
<i>Prunus</i>	Cherry, Plum			Y			
<i>Quercus</i>	Oak (White, Red, Black)			Y			
<i>Ratibida</i>	Mexican hat				Y		
<i>Rhododendron calendulaceum</i>	Flame Azalea			Y			
<i>Rhododendron vaseyi</i>	Pink-shell Azalea			Y			
<i>Rhus aronmatica</i>	Fragrant sumac			Y			
<i>Rhus typhina</i>	Staghorn sumac			Y			
<i>Ribes alpinum</i>	Mt. Currant			Y			
<i>Rosa rugosa</i>	Rose		Y				
<i>Rubus odorata</i>	Purple flowering raspberry			Y			
<i>Rudbeckia</i>	Black-eyed Susan				Y		
<i>Ruellia strepens</i>	Wild petunia				Y		
<i>Salvia</i>	Salvia				Y		
<i>Santolina chamaecyparissus</i>	Cotton lavender				Y		
<i>Sedum</i>	Stonecrop		Y		Y		
<i>Sempervivum</i>	Hen and chick		Y				
<i>Shepherdia</i>	Buffaloberry			Y			
<i>Silene virginica</i>	Fire pink				Y		
<i>Sisyrinchium angustifolium</i>	Blue eyed grass				Y		
<i>Solidago</i>	Goldenrod				Y		
<i>Sophora japonica</i>	Schlar tree			Y			
<i>Spiraea</i>	Spirea			Y			
<i>Stachys</i>	Lamb's ear		Y				
<i>Symphoricarpos</i>	Coralberry		Y	Y			
<i>Syringa</i>	Lilac			Y			
<i>Talinium calycinum</i>	Talinium						
<i>Tamarix</i>	Tamarisk			Y			
<i>Taxus</i>	Yew			Y			
<i>Tephrosia virginiana</i>	Goat's rue				Y		

		Bulb	Groundcover	Shrub/Tree	Perennial	Herb	Annual
Thuja occidentalis	Arborvitae			Y			
Thymus	Thyme		Y				
Tiarella cordifolia	Foamflower		Y		Y		
Tradescantia andersoniana	Spiderwort				Y		
Tulipa	Tulip	Y					
Vaccinium angustifolium	Lowbush blueberry		Y	Y			
Vancouveria hexandra	Inside-out flower				Y		
Verbascum	Mullein				Y		
Verbena	Verbena					Y	
Veronica	Speedwell		Y		Y		
Veronicastrum virginicum	Culver's root				Y		
Viburnum	Viburnum			Y			
Vinca minor	Periwinkle		Y				
Waldenstenia fragaroides	Barren Strawberry		Y				
Xanthorhiza simplicissima	Yellowroot		Y				
Yucca	Adam's needle				Y		
Zizia aptera	Zizia						