



Appalachia-Science  
in the Public Interest

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ASPI TECHNICAL SERIES TP 48

# Domestic Wildscape

A domestic wildscape is an ornamental or decorative place where one plants and encourages wildflowers, preferably native varieties. It is created for beauty, as a living example of low environmental impact land use, and as an alternative to cultivated lawns which take much care and ongoing attention. In recent years wildscapes have been installed to add beauty to stretches of highway right-of-ways in many states. In 1997 ASPI started its own wildscape on a well-drained rocky western slope next to our Mt. Vernon office. Since the thin layer of clay soil had a stubborn and thick layer of crab grass, the existing top soil was replaced with soil from a nearby lot. The rock could not be removed as it is a solid layer, as opposed to small individual pieces. In its first year of operation the transformed area has received many positive comments.

## Reasons for Wildscape

A good ornamental replacement for lawns -- Lawns are difficult to maintain and require mowing every week or two in rainy seasons. Most often mowing is done with gasoline-powered engines. The custodians of lawns often deem it necessary to use herbicides to kill unwanted weeds, and pesticides to remove moles, voles and other undesired wildlife. Wildscapes can cost as low as two cents a square foot if one uses commercial seed and be virtually free, if one uses local native flower seeds and plants.

A colorful landscape -- Wildscapes can be beautiful with colors changing over the seasons like a stained glass window in the moving sunlight. A planned wildscape can have flowers blooming from April to late October or even longer in warmer zones. Certain flowers bloom in spring, others in summer and some in autumn. A mix of these can be purchased from wildseed catalogs for a given region or can be composed by the wildscape manager as this person becomes more familiar with various native flowers.

A statement on environmental practice -- The regimentation of American lawns, house after house, is broken by the variety of wildscape. In virtually every case the open-minded neighbors will appreciate what you are trying to do. Wildscapes become opportunities for environmental education of both the immediate neighborhood and points beyond.

Beneficial insect and bird attractants -- Flowers, such as evening primrose, trumpet creeper, butterfly-weed, bishop's flower, black-eyed Susan, strawflower, nasturtium and angelica, attract such beneficial insects as greenlace wings and ladybugs. And they also attract hummingbirds as well.

It takes less water -- Native wildflowers are heartier than cultivated varieties and thrive in meadows and roadsides without supplementary watering. Using native desert plants in dryer regions produces *xeroscape* settings and reduces the need for water. Granted wildscapes may be more susceptible to fire than well-watered lawns. This threat can be reduced by ringing or intersecting wildscape with walkways.

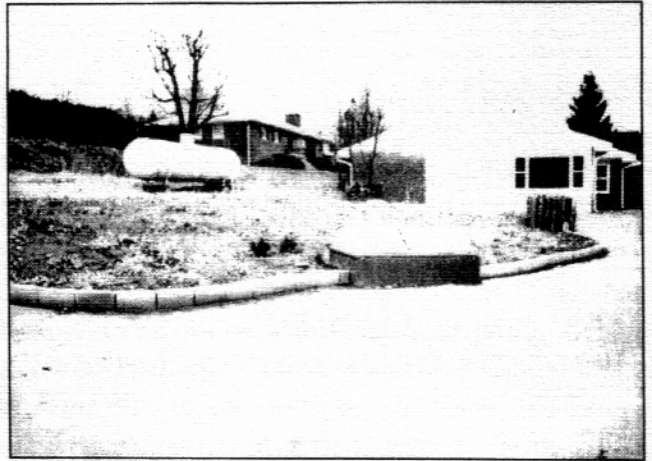
An ecoregion representation -- Native wildflowers represent important geologic, genetic, floristic and cultural ties to the local community, ecosystem and ecoregion in which they live. Let's preserve unique flora.

# Installing a Wildscape

Choose the area well -- Where and how big should the wildscape be? Where can this beautiful gem best be seen? How much depends on the amount of land the owners are willing to make available. You may want to use a gradual approach, starting small and increasing wildscape size with experience.

Select soils -- Normally sow wildflower seed on well-drained (non-wetland) areas with adequate rainfall that receive a minimum of eight hours of direct sunlight a day. However, shaded areas work well with certain species such as blue gem, king of the jackanapes, Molly Sanderson viola, coronation gold yarrow, blue cohosh, and lavender.

Select flower types -- The purest ecological approach is to select native wildflowers and choose a variety of flowers that bloom in all parts of the growing season. Contact ASPI for wildflower suggestions or consult Wildflower Catalogs listed on page 4.



## Gene Wilhelm's Suggestion for KY Native Wildscape

*(Consult Wildflower Catalogs for seed sources)*

- Mar. - April -- May apple, hepatica, bloodroot, violets, and wild ginger;
- April - May -- Spring beauty, phlox, and bluets;
- May - June -- Solomon's seal, Solomon's plume, Dutchman's breeches, and squirrel corn;
- June - July -- Thin-leaved coneflower, black-eyed Susan, green-headed coneflower, butterfly-weed, and bee balm;
- Aug. - Sept. -- Blazing star, false dragonhead, asters and goldenrods;
- October -- Monkshood and gentians.

**Note:** rare or endangered native flowers should NEVER be transplanted.

Prepare the soil - - In preparing the wildscape area, clear the soil of unwanted vegetation (brush or wire grass, etc.) by use of a cultivator and rakes. Remove persistent top vegetation that may choke the wildflowers. Immediate preparation consists of raking the soil cover or lightly tilling it to a maximum depth of one inch. This will limit the disturbance of dormant weed seed. The ground is then raked to remove yard debris. Don't sow wildflowers in clover or winter-growing grasses such as fescue and rye grass or else the flowers will be choked by the cover crop vegetation.

Sow the seed - - Follow recommended seeding rates. Sow seeds in fall in southern regions (Zones 7- 10) and early spring in the north (Zones 1- 6). If early warm weather accelerates germination and is followed by a dry period, watering may be necessary. It is best to combine the wildseed with an *inert carrier* (e.g., sand, perlite, potting soil) sometimes at a ratio of four to one for more even distribution over the desired wildscape surface. For even distribution, broadcast half the seed in one direction and the other half in a perpendicular direction.

Post-sowing work - - The seed is then pressed down by walking or rolling. Don't cover the seed more than double the diameter of the seed (which obviously varies considerably in mixtures). A general rule is one-sixteenth of an inch in depth. Manually remove larger weeds during the first year. Scatter straw during the first winter to protect the bare earth from erosion.

## Expanding Wildscape

Evaluation - - Photograph a selected view of the wildscape at various times in the growing season -- we suggest photographing from exactly the same place at the beginning of each growing month to show the color and progress of the landscape. Unseasonable weather conditions (hail, heavy wind, flooding, or severe winter) may retard or even destroy the wildscape and replanting may be necessary. Inadequate sun or water may hinder germination.



Watering - - In temperate non-arid zones the seed mixtures include varieties that can generally withstand moderately or normally dry conditions. At times severe droughts do occur and it is best to consider some form of additional watering (especially at the start-up of the wildscape). Generally, established wildscapes will weather these conditions and the flowers will bounce back the following year. When watering use normal lawn sprinkling procedures.

Wildseed saving - - In autumn you may notice individuals on the wildscape areas of state or federal highways. These people are saving the seed from the various wildflowers. This or surplus seed from the previous sowing may be stored in water resistant containers (tight fitting tin cans, zip-lock plastics, or glass jars with tight-fitting lids). Small sacks of desiccants such as silica gel can be added to ensure viability for a length of time. If you save your own seed, air-dry and clean out chaff before winter storage.

Resowing - - In the second year it may be necessary to re-establish portions of the wildscape by removing crabgrass or other such plant pests. The planting of new annuals or those that are native in place of aliens may be worth the effort. Enhancing the wildscape with domesticated flowers may become less important with time. Substitute native wildflowers.

Consider butterfly or hummingbird varieties - - Portions of the wildscape could become a butterfly and/or hummingbird garden with such flowers as red penstemon (a butterfly favorite), scarlet sage, orange and pink glory flower, mixed monarda or a number of other attracting plants. Butterflies are attracted by a wide range of wildflowers.

Ensuring an "organic" wildscape - - For those seeking consistency grow both organic foods and ornamentals. Some wildseed sellers also sell herbicides. This defeats the purpose of an organic farm or garden. Rather, try to manage the wildscape in such a way that the aggressive crabgrass and other such plants do not gain control. Manual pulling of ragweed may be needed the first year. Wiregrass proves more troublesome and it may be necessary to cut it out with a hoe or even retil and remove materials at the end of the growing season. A constant struggle will prove victorious, but eradication does take effort. Commercial fertilizers should not be used for they may hasten weed growth and lead to more foliage and less blooms.

Autumn mowing - - Some recommend mowing the dead brown foliage in the autumn to a height of 4 - 6 inches (shorter may hurt vegetation) or after a crop has finished and another wildflower crop is on the way. Mowing also aids seed dispersal and the breakup of leaf litter.

# WILDFLOWERS OF ASPI

COMMON	SCIENTIFIC	SEASON
<b>Mosses and ferns:</b>		
EBONY SPLEENWORT	<i>Asplenium platyneuron</i>	EVR
CHRISTMAS FERN	<i>Polystichum acrostichoides</i>	EVR
MAIDENHAIR FERN	<i>Adiantum pedatum</i>	SPR,SUM
NEW YORK FERN	<i>Thelypteris noveboracensis</i>	SPR, SUM
BRACKEN	<i>Pteridium latiusculum</i>	SPR,SUM
ROCK CLUBMOSS	<i>Lycopodium porophyllum</i>	EVR
SHINING CLUBMOSS	<i>Lycopodium lucidulum</i>	EVR

<b>KEY:</b>
EVR=evergreen
SPR=spring
SUM=summer
FAL=fall

<b>Wildflowers:</b>		
LG. FLOWER BELLWORT	<i>Uvularia grandiflora</i>	SPR
BELLWORT	<i>Uvularia perfoliata</i>	SPR
FALSE SOLOMON'S SEAL	<i>Smilacina racemosa</i>	SPR
WILD GARLIC	<i>Allium canadense</i>	SPR
SOLOMON'S SEAL	<i>Polygonatum biflorum</i>	SPR
CRESTED DWARF IRIS	<i>Iris cristata</i>	SPR
RATTLESNAKE PLANTAIN	<i>Goodyera pubescens</i>	FAL
JACK-IN-THE-PULPIT	<i>Arisaema atrorubens</i>	SPR
SESSILE TRILLIUM	<i>Trillium sessile</i>	SPR
UMBRELLA SEDGE	<i>Cyperus strigosus</i>	FAL
DROOPING SEDGE	<i>Carex crinita</i>	SUM
HOP SEDGE	<i>Carex lupulina</i>	SUM
KY BLUEGRASS	<i>Poa pratensis</i>	SPR
LG. WOOD SORREL	<i>Oxalis grandis</i>	SPR
EARLY BUTTERCUP	<i>Ranunculus fascicularis</i>	SPR
MOCK STRAWBERRY	<i>Duchesnea indica</i>	SPR
DWARF CINQUEFOIL	<i>Potentilla canadensis</i>	SPR
COMMON CINQUEFOIL	<i>Potentilla simplex</i>	SPR
STAR CHICKWEED	<i>Stellaria pubera</i>	SPR
COMMON CHICKWEED	<i>Stellaria media</i>	SPR
RUE ANEMONE	<i>Anemonella thalictroides</i>	SPR
MAY-APPLE	<i>Podophyllum peltatum</i>	SPR
BLOODROOT	<i>Sanguinaria canadensis</i>	SPR
CUT-LEAF TOOTHWORT	<i>Dentaria laciniata</i>	SPR
SLENDER TOOTHWORT	<i>Dentaria heterophylla</i>	SPR
PIPSISSIWA	<i>Chimaphila maculata</i>	SUM
COLUMBINE	<i>Aquilegia canadensis</i>	SPR
FIRE PINK	<i>Silene virginica</i>	SUM
WILD GERANIUM	<i>Geranium maculatum</i>	SPR
VIOLET WOOD SORREL	<i>Oxalis violacea</i>	SPR
BLUE PHLOX	<i>Phlox divaricata</i>	SPR
JACOB'S LADDER	<i>Polemonium reptans</i>	SPR
VIRGINIA BLUEBELLS	<i>Mertensia appendiculatum</i>	SPR
BLUETS	<i>Houstonia caerulea</i>	SPR
SPRING-BEAUTY	<i>Claytonia virginica</i>	SPR

TRAILING ARBUTUS	<i>Epigaea repens</i>	SPR	
FOUR-LEAVED MILKWEED	<i>Asclepias quadrifolia</i>		SPR
ALLEGHENY SPURGE	<i>Pachysandra procumbens</i>		SPR
WILD CARROT	<i>Daucus carota</i>	SUM	
ALUM-ROOT	<i>Heuchera villosa</i>	SUM	
PANICLED BELLFLOWER	<i>Campanula divaricata</i>		SUM
STONECROP	<i>Sedum ternatum</i>	SPR	
RED CLOVER	<i>Trifolium pratense</i>	SUM	
CROWN VETCH	<i>Coronilla varia</i>	SUM	
BEDSTRAW	<i>Galium aparine</i>	SUM	
WOOD-BETONY	<i>Pedicularis canadensis</i>	SPR	
HAIRY BEARD-TONGUE	<i>Penstemon hirsutus</i>		SPR
SHORT-SEPAL			
BEARD-TONGUE	<i>Penstemon brevisepalus</i>	SPR	
LYRE-LEAVED SAGE	<i>Salvia lyrata</i>	SPR	
HEAL-ALL	<i>Prunella vulgaris</i>	SUM	
DITTANY	<i>Cunila origanoides</i>	SUM	
HENBIT	<i>Lamium amplexicaule</i>	SPR	
HOARY MOUNTAIN-MINT	<i>Pycnanthemum pycnanthemoides</i>		SUM
JEWELWEED	<i>Impatiens pallida</i>	SUM	
SWEET WHITE VIOLET	<i>Viola blanda</i>		SPR
WHITE VIOLET	<i>Viola striata</i>	SPR	
LONG-SPURRED VIOLET	<i>Viola rostrata</i>	SPR	
COMMON BLUE VIOLET	<i>Viola papilionacea</i>		SPR
DWARF LARKSPUR	<i>Delphinium tricorne</i>		SPR
BIRD'S-EYE	<i>Veronica persica</i>	SPR	
MISTFLOWER	<i>Eupatorium coelestinum</i>	SUM	
DANDELION	<i>Taraxacum officinale</i>	SPR	
DWARF-DANDELION	<i>Krigia biflora</i>	SPR	
HAWKWEED	<i>Hieracium venosum</i>	SPR	
GOLDENROD(S)	<i>Solidago</i> —	SUMM	
EARLY	<i>juncea</i>		
WREATH	<i>caesia</i>		
BROAD-LEAF	<i>flexicaulis</i>		
GRASS-LEAVED	<i>graminifolia</i>		
LARGE COREOPSIS	<i>Coreopsis major</i>	SUM	
COREOPSIS	<i>Coreopsis auriculata</i>	SPR	
BLACK-EYED SUSAN	<i>Rudbeckia hirta</i>	SUM	
OX-EYE DAISY	<i>Chrysanthemum leucanthemum</i>	SUM	
ROBIN'S PLANTAIN	<i>Erigeron pulchellus</i>	SPR	
SHORT'S ASTER	<i>Aster shortii</i>	FAL	
GOAT'S BEARD	<i>Aruncus dioicus</i>	SUM	
HEART-LEAVED ASTER	<i>Aster cordifolius</i>	FAL	
WAVY-LEAF ASTER	<i>Aster undulatus</i>	FAL	
PANICLED ASTER	<i>Aster simplex</i>	FAL	
CALICO ASTER	<i>Aster lateriflorus</i>	FAL	
LITTLE BROWN JUG	<i>Asarum arifolium</i>	SPR	
INDIAN PIPE	<i>Monotropa uniflora</i>	SUM	
WHITE CLOVER	<i>Trifolium hybridum</i>	SUM	
HONEYSUCKLE	<i>Lonicera japonica</i>	SUM	

## Hints for Wildscape Acceptance

The best defense is a good offense - - Inform the neighbors about what you are planning to do, and say that you hope they will do the same with less effort. Many wildscape proponents hesitate to incorporate wildscapes for fear of peer pressure to return them to lawn. Some, such as the midwestern town neighbor who would reach across the fence and spray the wildscape with herbicides until firmly told to stop, will object.

Don't let the bureaucrats stop you - - Part of advocacy in environmental interests, particularly with wildscape, is speaking up when wildscapes are threatened. One California wildscape manager was harassed by the fire department and the local police. She was energized enough to successfully hold her own by refusing to move her wildscape and then by getting a number of nearby neighbors to follow her example. If properly managed, wildscapes do not have to be a greater fire hazard than lawns.

Border the wildscape - - Adding a border of stone, brick or even wood (sawed upright polls of various lengths, generally 6-18 inches) enhances the scenic beauty and gives a definitive character to the grounds. The statement is that wildscape is worth bordering with valuable materials.

Interplant with fruit trees and berries - - A fruit tree border on the north side may allow the wildscape area to stand out in a special manner. The north side should be selected as this will not shade the wildflowers. The trees should be nearer the margin so as not to shade or drain nutrients needed by the wildscape. Also interplanted berries may be beneficial provided they are not too aggressive. Borders on all sides could be with lower height or light density berries such as strawberries or some blueberries. Higher density varieties could be on the north side so as not to shade the wildscape area.

Hold a party when the wildflowers bloom - - Plan the party when the best edible wildflowers are in abundance and make a salad with some of them. Construct a chart showing each blooming wildflower and urge others to appreciate the entire spectrum of color at the time of the visit.

Make the wildflower photos into promotional materials - - Consider seasonal greeting cards with your wildscape photos. The photos, especially when they show people or physical structures in the background, add a sense of ecological harmony to the message you are attempting to give others.

**Wildflower Catalogs:** *Wildflower Reference Guide & Seed Catalog*, Wildseed Farms, 425 Wildflower Hills, P.O. Box 3000 Frederick, TX 78624- 3000 (800) 848- 0078. (\$2.00); *The Vermont Wildflower Farm*, Wildflower Lane, P.O. Box 1400, Louisiana, MO 63353- 8400 (800) 424- 1165 (\$3.00). Also available is *How to Create your own Wildflower Meadow* for \$9.95; *Wildflower Catalog*, Clyde Robinson Seed Company, P.O. Box 2366, Castro Valley, CA 94546- 0366 (510) 785- 0425 (\$2.00)

**Other Reference:** *Appalachian Highlands: A Field Guide to Ecology*, Gene Wilhelm, Available from ASPI for \$13.00. Pages 5-52 are especially relevant to this topic.