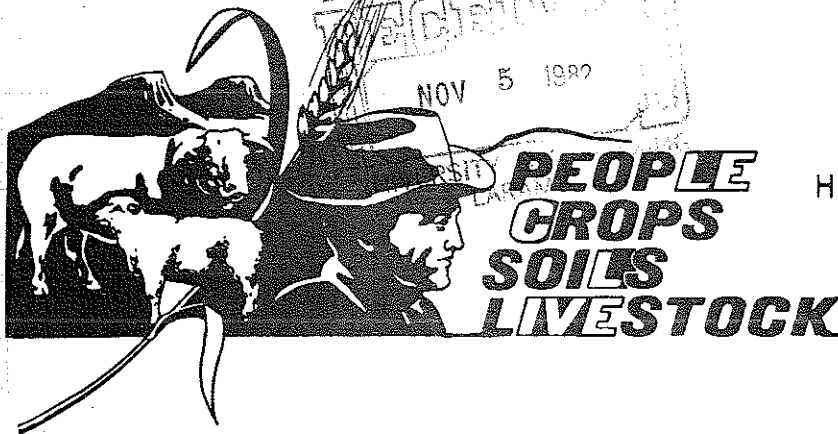


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Recommended Horticultural Plants
Generally Hardy And Adaptable In The
Central Great Plains Region 1/



B-770
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High Plains Grasslands Research Station
Agricultural Experiment Station
University of Wyoming

Gene S. Howard 2/

The plant species and varieties listed in this bulletin are generally hardy and adaptable to the climatic conditions of the Central Great Plains. The region is arid to semiarid and may be defined as the area extending westward from the 100th meridian to the Rocky Mountains and lying north of the New Mexico and south of Montana state lines.

These plants are adaptable to all portions of this region. Less hardy species, as well as these, can be successfully grown in protected areas at altitudes of 5,000 feet or less within the region. They may also be grown in the intermountain great-basin region west of the Rocky Mountains which has similar northern and southern boundaries.

The plant list was compiled from thousands of species and cultivars collected and tested at the USDA High Plains Grasslands Research Station^{3/} in Cheyenne, Wyoming during the years 1930-1974.

All types of horticultural plants were in those trials: tree fruits

1/ Contribution from the US Department of Agriculture - Agricultural Research Service and the University of Wyoming Agricultural Experiment Station.

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and small fruits, trees and shrubs for ornamental and windbreak planting, herbaceous perennials, annual flowers and vegetables. Varieties of strawberries and raspberries developed at the research station are marked by a plus sign (+).

Woody plants for the home and garden may be obtained as dormant bareroot, balled and burlapped, or container grown plants. Large trees and shrubs can be transplanted with a tree spade. Bareroot woody plants should be planted in April or the first half of May. Others may be planted anytime during the growing season but will generally become better established if planted early.

Trees and shrubs for windbreak planting in urban and rural areas must be planted in clean-cultivated soil generally on the windward side of the buildings. All competing vegetation must be killed by tillage or herbicides and the area kept free of vegetation. Windbreaks of small trees planted in holes in sod are generally doomed to failure. Even if extensive care and watering are given, growth is slow and losses are high. Plant shrubs 3 to 4 feet apart and trees 8 to 13 feet apart. The rows should be 16 to 20 feet apart. Generally 40 to 100 feet from buildings is the proper distance, since the protection provided is about 10 times the height of the trees.

Winters in the Central High Plains have high winds coupled with low humidity and low temperature. This combination causes drying out (desiccation) and death of less hardy plant material. It is advisable to water all evergreens during the winter to prevent this drying out since they do not lose their leaves like the deciduous trees. Planting care guides for horticultural plants are available at county

extension offices and the University of Wyoming Agricultural Extension Service, and also at most nursery stores.

Some of the plant species listed here are not readily available commercially. They may be obtained at special native plant nurseries in the region or propagated locally. Both botanical and common names are given for these plants.

| <u>Botanical Name</u> | <u>Common Name or Cultivar</u> |
|---|--|
| <u>TREES (Evergreen)</u> | |
| *# Abies concolor | Concolor Fir |
| # Abies lasiocarpa | Alpine Fir |
| * Juniperus monosperma | Oneseed Juniper |
| * Juniperus scopulorum (many cultivated forms) | Rocky Mountain Juniper |
| * Juniperus virginiana (many cultivated forms) | Eastern Red Cedar |
| * Picea Engelmannii | Engelmann Spruce |
| * Picea glauca 'Densata' | Black Hills Spruce |
| * Picea pungens | Colorado Spruce |
| * Pinus aristata | Bristlecone Pine |
| * Pinus edulis | Colorado Pinyon Pine |
| * Pinus flexilis | Limber Pine |
| * Pinus Mugo Mugo | Swiss Mountain Pine |
| * Pinus ponderosa | Ponderosa Pine |
| * Pinus nigra | Austrian Pine |
| <u>TREES (Broadleaf)</u> | |
| *# Acer Ginnala | Amur Maple |
| * Aesculus sp. | Horsechestnut, Ohio Buckeye |
| * Celtis occidentalis | Hackberry |
| * Crataegus ambigua | Russian Hawthorn |
| * Elaeagnus angustifolia | Russian Olive |
| * Gleditsia triacanthos | Honeylocust Cultivars: Beatrice, Imperial, Maxwell, Moraine, Shademaster, Skyline |
| * Malus sp. (Flowering Crabapple cultivars) | Almey, Dolgo, Hopa, Radiant, Rosybloom, Sundog |
| Populus sp. (Cottonwoods, Poplars) | Use male trees |

- * Quercus rubra Northern Red Oak
 - * Quercus macrocarpa Bur Oak
 - *# Sorbus Aucuparia European Mountain Ash
 - * Sorbus hybrida Oak-leaf Mountain Ash
 - * Tilia americana American Linden
 - * Ulmus pumila Siberian (Chinese) Elm
 - Betula pendula 'Gracilis' Cutleaf Weeping Birch
- SHRUBS (Evergreen)
- * Juniperus chinensis 'Pfitzerana' Pfitzer Juniper
 - * Juniperus communis Common Juniper
 - * Juniperus Sabina Savin Juniper
 - * Juniperus sabina 'Tamariscifolia' Tamarix Juniper
 - * Juniperus squamata 'Meyeri' Meyer Single Seed Juniper
- SHRUBS (Broadleaf)
- * Caragana arborescens Siberian Peashrub
 - * Caragana frutex 'Globosa' Globe Russian Peashrub
 - * Caragana microphylla Littleleaf Peashrub
 - * Caragana pygmaea Pygmy Peashrub
 - * Caryopteris sp. Heavenly Blue, Azure, Blue Mist
- SHRUBS (Broadleaf)
- Cornus sericea Colorado Redosier
 - * Cotoneaster acutifolius (Black fruit) Dogwood
 - * Cotoneaster integerrimus (Red fruit) Peking Cotoneaster
 - * Cotoneaster lucidus (Black fruit) European Cotoneaster
 - * Cotoneaster racemiflorus Hedge Cotoneaster
 - soongoricus (Red fr.)
 - * Forestiera neomexicana Sungari Redbead
 - * Ligustrum vulgare 'Nanum' Cotoneaster
 - * Lonicera Korolkowii Zabelii New Mexican Forestiera
 - Lodense Privet
 - Zabel Blueleaf
 - Honeysuckle
 - * Lonicera sp. Arnold Red, Cardinal, Carlton, Valentia, Honeysuckle
 - * Perovskia atriplicifolia Russian Sage Perovskia
 - # Philadelphus Lewisii Lewis Mockorange
 - * Philadelphus sp. Mrs. Thompson & Silvia
 - *# Potentilla fruticosa 'Friedrichsenii' Friedrichsen Bush
 - Cinquefoil
 - *# Potentilla parvifolia 'Farreri' Farrer Cinquefoil
 - * Prunus triloba x P. pedunculata Prairie Almond
 - * Prunus tenella Russian Almond
 - * Prunus tomentosa Manchu (Chinese) Cherry
 - * Prunus virginiana demissa Western Chokecherry, Schuberts purple-leaved

- # Prunus sp.
- * Rhamnus cathartica
- * Rhamnus davurica
- * Rhamnus saxatilis
- Rhus trilobata
- Rosa foetida 'Bicolor'
- Rosa sp.
- * Sambucus caerulea
- * Sambucus racemosa
- * Sibiraea laevigata
- Spiraea gemmata
- * Spiraea nipponica
- * Spiraea Sargentiana
- * Spiraea trichocarpa x S. trilobata
- * Spiraea trilobata
- * Spiraea Vanhouttei
- Spiraea Wilsonii
- * Syringa Josikaea
- * Syringa Xpersica
- * Syringa villosa
- * Syringa hybrids(Lilacs)
- * Viburnum burejaeticum
- * Viburnum Lantana
- * Viburnum Lentago
- * Juniperus scopulorum
- * Juniperus virginiana
- * Picea pungens
- * Pinus edulis
- * Caragana arborescens
- * Caragana microphylla
- *% Cotoneaster acutifolius
- *% Cotoneaster integerrimus
- *% Cotoneaster lucidus

HEDGES (Evergreen)

- Newport, Cistena purple-leaved
- Common Buckthorn
- Dahurian Buckthorn
- Rock Buckthorn
- Skunkbush Sumac
- Austrian Copper Rose
- Harisons Yellow or Yellow Rose of Texas
- Blueberry Elderberry
- Redman Elderberry
- Smooth Sibirea
- Mongolian Spirea
- Nippon Spirea
- Sargent Spirea
- Snowwhite cultivar
- Threelobe Spirea
- Van Houtte Spirea
- Wilson Spirea
- Hungarian Lilac
- Persian Lilac
- Late Lilac
- Ellen Willmott, Leon Gambatta, Lucie Baltet, Marechal Foch, Mme., F. Morel, Monge, Pochontas, Congo, J. Callot, Thunberg, Pres. Carnot
- Manchurian Viburnum
- Wayfaring Tree
- Nannyberry

HEDGES (Broadleaf)

- Rocky Mountain Juniper
- Eastern Red Cedar
- Colorado Spruce
- Colorado Pinyon Pine
- Siberian Peashrub
- Littleleaf Peashrub
- Peking Cotoneaster
- European Cotoneaster
- Hedge Cotoneaster

| | |
|--|---------------------------|
| * Cotoneaster racemiflorus soongoricus | Sungari Redbead |
| | Cotoneaster |
| *% Forestiera neomexicana | New Mexican Forestiera |
| % Ligustrum vulgare | Privet, Cheyenne cultivar |
| * Lonicera sp. | Honeysuckle |
| *% Potentilla parvifolia 'Farreri' | Farrer Bush Cinquefoil |
| *% Prunus virginiana demissa | Western Chokecherry |
| * Rhamnus cathartica | Common Buckthorn |
| *% Rhamnus davurica | Dahurian Buckthorn |
| *% Syringa Xpersica | Persian Lilac |
| * Ulmus pumila | Siberian (Chinese) Elm |

VINES (Broadleaf)

| | |
|-----------------------------|-------------------------------|
| Clematis Xjackmannii | Jackman Clematis |
| Parthenocissus quinquefolia | Virginia Creeper, Woodbine |

- * - Drouth resistant
- Susceptible to chlorosis in alkaline soils
% - Most ornamental hedge species
Cultivar - Cultivated variety

FRUITS

| <u>Apples</u> | | <u>Cherry</u> | <u>Crabapple</u> |
|---------------|-------------|-----------------|------------------|
| Anoka | Red Duchess | Early Richmond | Columbia |
| Cortland | Redant | English Morello | Dolgo |
| Eastman | Roberts | Meteor | Heart River |
| Goodhue | Sharon | Montmorency | Linda Sweet |
| Haralson | University | | McPrince |
| Joyce | Wealthy | | Sugar |
| Lodi | | <u>Currant</u> | |
| | | Red Lake | |
| | | Red Cross | |

FRUITS Continued

| <u>Gooseberry</u> | <u>Grape</u> | <u>Native Plums</u> (pollinators) | <u>Plums: Prune Type</u> | |
|---|------------------|--------------------------------------|--------------------------|-----------|
| Pixwell | Alpha | Manet | Blue Damson | Mt. Royal |
| Red Jacket | Beta | South Dakota | Bonne St. Anne | Richland |
| | Dakota | Terry | Hildreth+ | Yakima |
| <u>Plums:</u> | <u>Raspberry</u> | <u>Sandcherry Hybrids</u> | <u>Strawberry</u> | |
| <u>Japanese-Hybrids</u> (Need pollinators) | August Red | Opata | Fort Laramie+ | |
| Emerald | Pathfinder+ | Sapa | Ogallala+ | |
| Fiebing | Trailblazer+ | Oka | Superfection | |
| La Crescent | | | | |
| Pembina | | | | |
| Superior | | | | |
| Tecumseh | | | | |

PERENNIAL FLOWERS

(Listed in order of bloom date)

- Clematis hirsutissima
Euphorbia epithymoides
Papaver orientale
Veronica spuria
Lilium umbellatum
Anchusa-Dropmore
Iris, many cultivars
Pentstemon glaber
Dictamnus albus & D. albus 'Rubra'
Nepeta Mussinii
Peony, many cultivars
Lilium superbum
Lilium sp., Amber Gold, Bright Star,
Crimson Beauty, Fire King, John
Evans, Luna, Overture, Queen of
Hearts, Thunderbolt, Turkscap
Gaillardia
Potentilla recta sulphurea &
P. Anserina
Delphinium species & cultivars
Sedum species & cultivars
Achillea Ptarmica
Artemisia-Silver Mound
Perennial Phlox
Lilium tigrinum
Fall Asters
Chrysanthemum, many cultivars

ANNUAL FLOWERS

(All of the more common kinds)

BULBS

- Daffodil, Dahlia, Gladioli,
Grape Hyacinth, Jonquil,
Tulip, Crocus, Allium

LAWN GRASSES: Irrigated

- Kentucky Bluegrass & its
cultivars (for full sun)

- Chewings & Illahee Fescue,
Creeping Red Fescue
(for shady places)

LAWN GRASSES: Dryland

- Fairway Crested Wheat
Blue Grama
Buffalograss

VEGETABLE CULTIVARS

Grow only the early to
mid-season kinds.

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