

# Table of Contents

---

Table of Contents	1
Aquatic and Wetland Company	2
Propagation Services	3
About Our Inventory	5
USDA Plant Zone Map	6
Plant Selection Guide	7
Quick Reference Guide	8
Herbaceous Species	12
Woody Species	25
Index to Common Names	40
Ordering Information	42



# AQUATIC AND WETLAND COMPANY

THE AQUATIC AND WETLAND Company is comprised of several operational teams, including consulting, natural resource construction, reclamation, landscaping and wholesale plant nursery which together provide turnkey solutions to natural resource issues. As one of the first environmental firms of our type in the Rocky Mountain Region, we have gained a reputation for quality and scientific integrity. Aquatic and Wetland's experience is embedded in the understanding of natural ecosystems. Our staff is comprised of a diverse group of professionals with backgrounds in biology, ecology, landscape architecture, engineering, limnology, environmental planning, water resource management, horticulture and construction. This depth of expertise in conjunction with our three-part structure allows us to take a multi-disciplined approach to our projects and deliver quality-controlled, turnkey solutions to our clients.

The Aquatic and Wetland Company is motivated by a concern for the balance between sound environmental resource planning and the ecological integrity of our environment. This motivation is supported by a belief that we have the ability to sustain a positive relationship between our communities and the natural environment. We take pride in our successes and in the knowledge that we have had the opportunity to make significant contributions and implement practical solutions to local and regional environmental concerns.

**THE NURSERY DEPARTMENT** of Aquatic and Wetland Company (AWC) specializes in the production of high quality plant material for the creation, restoration and enhancement of native and landscaped ecosystems. Our goal is to increase the commercial availability and diversity of native plant materials that can be used for environmental enhancement throughout the Rocky Mountain region. Our focus is on the production of high quality Rocky Mountain natives for use in restoration and hardy plant materials for use in landscaping projects. Our plants are grown in outdoor nursery beds, hoop houses and our heated greenhouses. In our efforts to increase diversity, we are continually in the process of propagating native plants that are currently not available. Specific applications for these plant materials include:

- wetland mitigation projects
- stream and riparian zone restoration
- constructed wetlands for water treatment
- mined land reclamation
- highway revegetation
- wildlife habitat enhancement
- utility corridor reclamation
- erosion and sediment control
- native landscaping
- drainageway improvements



# Scope of Services

AWC is structured to be able to offer our clients an integrated ecological approach that is implemented through sound planning and design, specialized construction and quality plant materials. These teams work together to provide innovative, turnkey solutions to ecological restoration, water resource management, disturbed land reclamation and regulatory compliance issues. This structure has been instrumental in developing a thorough understanding of what it takes to move a design from the drafting table to the ground.

## NURSERY & PROPAGATION

Aquatic and Wetland Company exists to help build successful projects. One key to planting success is to use plant material which is genetically adapted to the conditions of your specific site or to regional climatic conditions. AWC has two ways to help you accomplish this:

- Maintaining an extensive inventory of plant material native to the Rocky Mountain region or hardy to local conditions and
- Contract growing site adapted material

**Regionally Adapted Inventory:** The AWC Nursery recognizes the importance of maintaining regional genetic diversity in plant species and its potential contribution to the long-term success of ecological restoration projects and the overall ecological integrity of an area. We strive to maintain genetic integrity in all of our stock material.

**Contract Growing:** Contract grow arrangements are the most economically feasible and environmentally sensitive methods available to obtain site specific plant materials (local genotypes). We will harvest local seed or collect plant stock, grow and deliver plants to your specifications. This is the best way to ensure that a large quantity of plant material will be available when you need it. Contract grow arrangements are also recommended when large quantities of plant material and/or special container sizes are desired.

**Mycorrhizal Inoculation:** Certain fungi, termed mycorrhiza, have a mutually beneficial relationship with many higher plants whose roots are home to these fungi. This symbiotic association benefits the plant by enhancing root growth, water absorption, nutrient uptake, and disease resistance. The mycorrhizal fungus benefits by receiving necessary organic compounds from the plant.

To prepare our plant material for installation in disturbed or degraded sites, AWC inoculates our plants with mycorrhizal fungi to maximize transplant survivability.

**On-site Plant Installation:** AWC's revegetation crews are knowledgeable in the proper handling and installation of your plant material which ultimately protects your investment. Different site conditions require different planting specifications. AWC's crews have the experience to give each site the best possible chance of success.

# Scope of Services

## NATURAL RESOURCE CONSTRUCTION

Ecologically-based construction projects require a different approach than traditional capital improvement projects. AWC established our own construction group with equipment and crews chosen and trained to meet both the non-standard construction requirements of ecologically-based projects as well as the biological requirements. Construction crews are managed to minimize site damage and preserve existing resources and habitat features. Specific services include:

- Bioengineered Streambank Stabilization
- Wetland Mitigation
- Habitat Creation and Restoration
- Parks
- Lakes and Ponds
- Dams
- Earthwork and Grading
- Instream Drop Structures
- Kayak Courses

**RECLAMATION:** AWC's experienced reclamation project managers and field crews utilize the latest reclamation and erosion control techniques to begin healing the disturbed landscape. Specific services include:

- Planting & Seeding
- Erosion Control Blanket Installation
- Grass Lined Channel Installation
- Hydroseeding
- Silt Fence Installation
- Live Staking
- Hay and Straw Mulching
- Hydromulching
- Erosion Bale Installation

**LANDSCAPING:** AWC creates landscapes that take advantage of the native plant palette and invite people to enjoy the natural character of a place. Specific services include:

- Seeding Native and Turf Grass
- Irrigation Design and Installation
- Planting
- Rock Walls
- Flat Work
- Trails
- Parks and Structures
- Water Features
- Pedestrian Bridges

## CONSULTING

**Clean Water Act Compliance:** including wetland delineation, avoidance, minimization and alternatives analysis, mitigation design and permitting, construction oversight, follow-up monitoring.

**Habitat Design and Enhancement** for native wetland, stream, pond and upland environments.

**Bioengineered Streambank Stabilization:** AWC believes in "roots not riprap." We have developed a variety of bioengineered techniques which provide erosion control while enhancing riparian habitat and water quality functions.

**Engineering:** including hydraulic and hydrologic analyses, fluvial geomorphology, FEMA permitting, modeling and floodplain delineation.

**Landscape Ecology and Landscape Architecture:** One of the underlying principals of AWC's work is the integration of human communities and natural ones. AWC's landscape architects design to account for human interaction with restored or created landscapes and incorporate native landscapes and wildlife habitat in the built environment.

**Project Maintenance and Monitoring:** A project doesn't end when the crews leave the site. AWC believes in active follow-up maintenance and monitoring to ensure that a project is developing as designed. AWC implements two and five year monitoring programs depending upon project requirements.

**Threatened and Endangered Species Surveys:** AWC has experts on staff who are recognized by the U.S. Fish and Wildlife Service as qualified to conduct habitat evaluations and presence/absence surveys for the Preble's Meadow Jumping Mouse, and Ute Ladies' Tresses Orchid. We conduct various levels of habitat evaluation for these species and provide species specific mitigation design.



# About Our Inventory

The plants featured in this year's catalog represent a variety of quality plants which have been selected to meet the varying goals of restoration and landscape projects in the Rocky Mountain region.

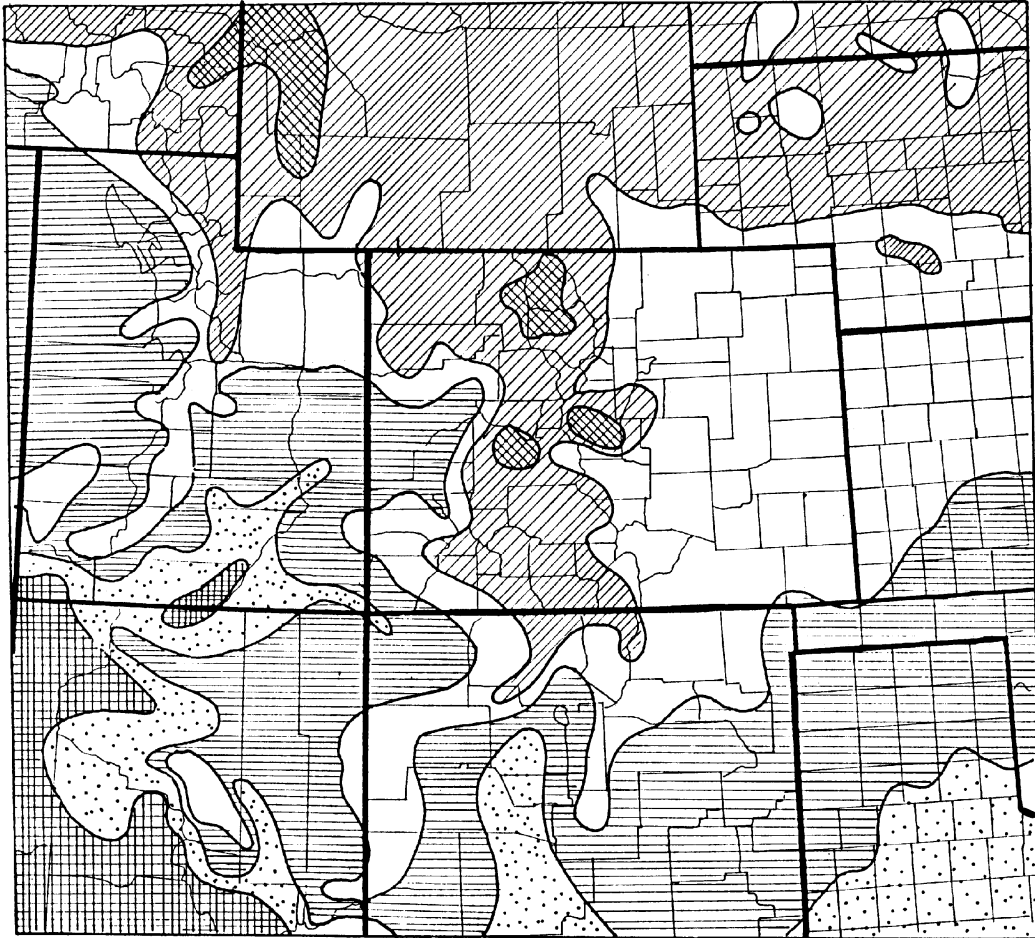
**Native Plants:** The AWC nursery was established to meet the needs of the restoration community by increasing the commercial availability and diversity of native plant material. We remain committed to that important objective. We are continually striving to increase the volume and diversity of our inventory and to bring our customers an even larger selection of native plant materials. Whatever the application, native plants provide many benefits. Because they are pre-adapted to a particular eco-region, locally derived native plants generally require less labor and expense to maintain once established. Additionally, natives provide other benefits, including increased wildlife forage and habitat, water conservation, water quality, and conveyance of a uniquely "Western" sense of place.

**Selected Ornamentals:** As we have grown, we have expanded our inventory to also meet the needs of responsible landscaping in the West. Many of the native plants we carry can make a nice contribution to cultivated landscapes. You will also notice that some of the plants featured in this year's catalog are cultivated for ornamental purposes. They are included in our inventory because their growing requirements match conditions in the West, and they are good candidates for water-wise and winter-hardy landscapes.


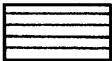

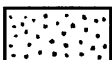
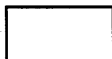
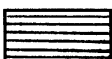
We are dedicated to being responsive to the needs of our clients and urge you to contact us with your comments and plant needs.



# USDA Plant Zone Map



## Zone Information

	Zone 3 -30 to -40° F		Zone 6 -10 to 0° F
	Zone 4 -20 to -30° F		Zone 7 0 to 10° F
	Zone 5 -10 to -20° F		Zone 8 10 to 20° F

Approximate range of average annual minimum temperature for each zone.



# Plant Selection Guide

The following plant selection guide is intended to be used as a design tool to assist in selecting the most appropriate materials to create a successful vegetation plan. The information has been compiled from various sources including field guides, scientific literature and our own practical experience. Each plant listing contains traits which are important for design purposes. Listings which have little or no information do not necessarily indicate that the trait is not relevant, but rather that information is unknown or unavailable.

**Characteristics** describes general traits of the plant such as physical appearance, flowering season, tolerance for pollution, wildlife values, etc.

**Community** describes the habitat type, elevation range and plant community associations for native plants and planting requirements for ornamentals.

**Wetland Indicator** Regional indicators of plants are designated by a Regional Interagency Review Panel for the U.S. Fish and Wildlife Service for use in the identification of wetlands. Indicators show the estimated probability of a species occurring in wetlands versus nonwetlands. The indicators shown are for Regions 5 and 8 respectively.

- **OBL Obligate Wetland:** Occurs with an estimated 99% probability in wetlands.
- **FACW Facultative Wetland:** Estimated 67%-99% probability of occurrence in wetlands.
- **FAC Facultative:** Equally likely to occur in wetlands and nonwetlands (34% - 66% probability).
- **FACU Facultative Upland:** 67 -99% probability in nonwetlands, 1% - 33% in wetlands.


Positive or negative signs are used to more specifically define frequency of occurrence in wetlands. A positive sign (+) indicates a frequency toward the higher end of a category (more frequently found in wetlands), and a negative sign (-) indicates a frequency toward the lower end of the category (less frequently found in wetlands).

**Hydrologic Regime** indicates the soil moisture requirements for particular species. Water regime is one of the most important factors determining which plant species will survive in an area. Local benchmarks are highly recommended for determining plant zonation.

- **Up to XX"** indicates species that prefer the indicated standing water depth.
- **Saturated** conditions indicate species that prefer saturated conditions throughout the growing season.
- **Seasonally Saturated** species prefer soil that is saturated (water table at the soil surface) early in the growing season but later dries out.
- **Seasonally Flooded** species prefer inundation in the early portion of the growing season.
- **Moist/Mesic** species prefers to have its root zone in the capillary fringe of the water table (i.e. adequate water supply, but not saturated soils; can withstand short periods of drought)
- **Dry/Xeric** species prefers arid conditions and well drained soils

**Salinity/Acidity Tolerance** indicates the relative tolerance to saline or acidic soil conditions.

**Rate of Spread** describes how quickly a plant will reproduce to cover an area.

 next to a plant name indicates a native species which is one that originates or occurs naturally in the Rocky Mountain region. It should be noted that some of the plants featured in the catalog are not native to this region, but have become naturalized and accepted for use in certain types of projects.

# Quick Reference Guide – Herbaceous Species

Scientific Name	Common Name	Nationwide Wetland Indicator	USDA Zone	Elevation Range (ft)	Hydrologic Regime	Salinity Tolerance	Acidity Tolerance	Height	Rate of Spread
<i>Acorus calamus</i>	Sweetflag	OBL	3-5	3500' - 5100'	up to 6"	M	L-M	24"-36"	medium
<i>Agrostis stolonifera</i>	Redtop, Bentgrass	FAC+/FACW	-	-	sat.	M	-	1' - 3'	medium
<i>Asclepias incarnata</i>	Marsh Milkweed	FACW+/OBL	4-6	3000-6000	seas. sat.	M	-	up to 4'	slow
<i>Beckmannia syzigachne</i>	American Sloughgrass	OBL	3-5	4500-10600	seas. flood.	-	L	36"	rapid
<i>Calamagrostis canadensis</i>	Blue-joint Reedgrass	FAC/OBL	2-5	4500->11500	seas. sat.	L	M	24"-36"	medium
<i>Calamagrostis acutiflora</i> 'Karl Forester'	Feather Reed Grass	N/A	4-8	Hardy to 6500	adapt. -moist	-	-	4' - 7"	-
<i>Carex aquatilis</i>	Water Sedge	OBL	2-5	5100-13000	up to 3"	L	M	6"-24"	medium
<i>Carex bebbii</i>	Bebb's Sedge	OBL	3-6	3000-10000	seas. sat.	L	-	10"-20"	medium
<i>Carex buchananii</i>	Leatherleaf Sedge	N/A	6-9	up to 6,500	sat.	-	-	1' - 2'	-
<i>Carex lasiocarpa</i> (C. lanuginosa)	Wooly Sedge	OBL	3-6	3000-10200	seas. flood.	L	L	12"-30"	medium
<i>Carex microptera</i>	Small-winged Sedge	FAC/FACW	2-5	3500->10800	moist sat.	-	-	8"-16"	medium
<i>Carex nebrascensis</i>	Nebraska Sedge	OBL	3-6	3000-11500	seas. sat.	M	L	10"-24"	medium
<i>Carex scopulorum</i>	Rocky Mountain Sedge	FACW	2-3	9000->11500	seas. flood	-	-	8"-16"	medium
<i>Carex utriculata</i> (C. rostrata)	Beaked Sedge	OBL	2-5	6500->11000	seas. sat.	L	M	10"-40"	rapid
<i>Distichlis spicata</i> (D. stricta)	Inland Saltgrass	FACW	-	up to 9000'	seas. flood.	H	H	4"-12"	medium
<i>Deschampsia cespitosa</i>	Tufted Hairgrass	FACW	2-5	5000->11500	up to 3"	L	M	18"-30"	medium
<i>Eleocharis acicularis</i>	Least Spikerush	OBL	3-6	5000-12000	up to 3"	L	L	6"-18"	rapid
<i>Eleocharis palustris</i>	Creeping Spikerush	OBL	3-9	3400-10700	up to 6"	M	L	6"-30"	rapid
<i>Gaillardia aristata</i>	Native Blanket Flower	N/A	3-10	up to 9000	xeric	-	-	18"-24"	-
<i>Glyceria grandis</i> var. <i>grandis</i> (G. maxima)	Tall Mannagrass	OBL	-	6000 - 9000	seas. flood	-	-	4'-5'	-
<i>Glyceria striata</i>	Fowl Mannagrass	OBL	3-8	3500-10500	seas. flood.	L	-	24"-36"	rapid
<i>Helianthus maximilliani</i>	Maximillian's Sunflower	UPL/FACU	-	2300-7000	moist to dry	-	-	3' - 7'	rapid
<i>Helianthus nuttallii</i>	Marsh Sunflower	FAC/FACW	4-6	3000-6000	seas. flood.	M	-	up to 6'	medium
<i>Iris missouriensis</i>	Rocky Mountain Iris	FACW-/OBL	2-5	1000-7500	seas. sat.	M	L	18"-24"	slow
<i>Juncus balticus</i> (J. arcticus)	Baltic Rush	FACW/OBL	2-6	3400-11500	moist to sat.	M	M	6"-30"	medium
<i>Juncus compressus</i>	Round-fruit Rush	FACW	-	up to 8500	seas. sat.	-	-	6"-24"	-
<i>Juncus confusus</i>	Colorado Rush	FAC+	2-6	5000-12500	moist to sat.	L	-	6"-12"	medium
<i>Juncus effusus</i>	Soft Rush	FACW	1-9	-	up to 1'	L	-	12"-42"	slow
<i>Juncus hallii</i>	Hall's Rush	FAC	2-3	9000->11500	moist to sat.	-	M	8"-16"	medium
<i>Juncus mertensianus</i>	Merten's Rush	OBL	2-3	9000->11500	saturated	-	-	4"-16"	medium
<i>Juncus nodosus</i>	Knotted Rush	OBL	4-6	3500-7500	seas. sat.	M	-	8"-24"	rapid
<i>Juncus saximontanus</i>	Rocky Mountain Rush	FACW+	2-5	4000->11500	seas. sat.	-	L	6"-18"	slow
<i>Juncus tenuis</i>	Poverty Rush	FAC-/FACW	4-5	4500-9000	moist to sat.	-	-	6"-12"	medium
<i>Juncus torreyi</i>	Torry's Rush	FACW/FACW+	4-9	3400-8000	saturated	-	-	6"-18"	rapid
<i>Miscanthus sinensis</i> 'Gracillimus'	Maiden Grass	N/A	5-9	up to 7000	moist	-	-	5'-6'	-
<i>Miscanthus sinensis</i> 'Morning Light'	Dwarf Maiden Grass	N/A	5-8	Hardy to 7000	adaptable	-	-	4'-5'	-
<i>Miscanthus sinensis</i> var. <i>strictus</i>	Porcupine Grass	N/A	4-9	-Hardy to 7000	saturated	-	-	4'-6'	-

# Quick Reference Guide – Herbaceous Species

Scientific Name	Common Name	Nationwide Wetland Indicator	USDA Zone	Elevation Range (ft)	Hydrologic Regime	Salinity Tolerance	Acidity Tolerance	Height	Rate of Spread
<i>Panicum virgatum</i>	Switchgrass	FAC	2	3400-7800	seas. sat.	-	-	up to 25"	slow
<i>Pascopyrum smithii</i> ( <i>Agropyron smithii</i> )	Western Wheatgrass	N/A	-	1000 - 9000	adaptable	M-H	M-H	1' -3'	medium
<i>Pennisetum alopecuroides</i> 'Hameln'	Dwarf Fountain Grass	N/A	5-9	Hardy to 6000	adaptable	-	-	12"-20"	-
<i>Pennisetum alopecuroides</i> 'Little Bunny'	Little Bunny Fountain Grass	N/A	5-9	Hardy to 6000	adaptable	-	-	10"-12"	-
<i>Penstemon barbatus</i>	Scarlet Bugler	N/A	3-8	Hardy to 8500	xeric	-	-	2'-3'	slow
<i>Penstemon strictus</i>	Rocky Mountain Penstemon	N/A	3-8	Hardy to 8500	xeric	L-M	L-M	18"-24"	slow
<i>Phragmites australis</i> ( <i>P. communis</i> )	Common Reed	FACW	-	-	seas. flood.	M	-	6'-8'	rapid
<i>Puccinellia distans</i>	Weeping Alkaligrass	OBL	4-6	-	moist	H	L	up to 24"	medium
<i>Puccinellia nuttalliana</i>	Nuttall's Alkaligrass	FAC-OBL	4-6	3000-6000	seas. flood.	H	L	6"-12"	medium
<i>Rudbeckia hirta</i>	Black-eyed Susan	N/A	-	up to 8000	xeric	-	-	24"-36"	-
<i>Sagittaria latifolia</i>	Arrowhead	OBL	5-7	1000-6000	up to 12"	M	L	6"-18"	rapid
<i>Schizachyrium scoparium</i>	Little Bluestem	N/A	3-10	-	-	-	-	2'-5'	-
<i>Schoenoplectus acutus</i> ( <i>Scirpus acutus</i> )	Hard-stem Bulrush	OBL	3-7	3500-9000	up to 36"	M	L	up to 6'	rapid
<i>Schoenoplectus maritimus</i> ( <i>Scirpus maritimus</i> )	Alkali Bulrush	OBL	3-7	1000-11500	up to 6"	H	-	24"-36"	medium
<i>Scirpus microcarpus</i>	Small-fruit Bulrush	OBL	3-6	4500-8600	up to 6"	-	-	up to 3'	medium
<i>Scirpus pallidus</i>	Cloaked Bulrush	OBL	3-6	-	Sat.	-	-	up to 5'	medium
<i>Schoenoplectus pungens</i> ( <i>Scirpus pungens</i> )	Three Square	OBL	3-7	3800-9300	up to 6"	M	L	24"-48"	rapid
<i>Schoenoplectus tabernaemontani</i> ( <i>Scirpus validus</i> )	Soft-stem Bulrush	OBL	3-8	1000-9000	up to 6"	H	-	up to 6'	medium
<i>Sparganium eurycarpum</i>	Burreed	OBL	4-6	3500-7000	up to 12"	M	-	24"-48"	rapid
<i>Spartina gracilis</i>	Alkali Cordgrass	FACW	-	4500-9000	-	M	L	36"-60"	-
<i>Spartina pectinata</i>	Prairie Cordgrass	FACW/OBL	4-6	3500-7000	seas. flood.	M	L	36"-60"	rapid
<i>Sporobolus airoides</i>	Alkali Sacaton	FAC-/FAC+	4-8	<1000-6000	seas. flood.	H	L	6"-12"	medium
<i>Triglochin maritimum</i>	Arrowweed	OBL	4-6	3000-8500	seas. flood.	M	-	12"-18"	slow
<i>Typha angustifolia</i>	Narrow-leaf Cattail	OBL	-	3000 - 6000	up to 12"	H	M	36" - 54"	rapid
<i>Typha domingensis</i>	Giant Cattail	OBL	6-8	<1000-4500	up to 24"	M	L	up to 12'	rapid
<i>Typha latifolia</i>	Common Cattail	OBL	4-6	3400-6000	up to 12"	H	M	up to 6'	rapid
<i>Verbena hastata</i>	Blue Vervain	FAC/FACW+	4-6	3400-6000	seas. sat.	L	-	18"-30"	slow

# Quick Reference Guide – Woody Species

Scientific Name	Common Name	Nationwide Wetland Indicator	USDA Zone	Elevation Range (ft)	Hydrologic Regime	Mature Height	Aerial Spread
<i>Acer glabrum</i>	Rocky Mountain Maple	FAC	4	5000-10000	moist to wet	5'-15'	10'-15'
<i>Acer grandidentatum</i>	Big Tooth Maple	N/A	3-4	5,500-7800	adaptable	25'	15'-20'
<i>Acer negundo</i>	Boxelder	FAC/FACW	3-9	-	moist to wet	20'-30'	20'-25'
<i>Acer tataricum</i>	Tatarian Maple	N/A	3-4	up to 8500	adaptable to dry	18'-24'	18'-20'
<i>Alnus incana ssp. tenuifolia</i>	Thinleaf Alder	FACW	3-5	5000-10000	seas. flood.	25'	20'
<i>Amelanchier alnifolia</i>	Saskatoon Serviceberry	FAC/FACU	3-5	up to 10000	seas. sat.	3'-26'	12'
<i>Amorpha canescens</i>	Desert False Indigo, Leadplant	OBL/FACW	5	up to 7500	dry/adaptable	30"-42"	24"-48"
<i>Amorpha fruticosa</i>	Leadplant	FAC/OBL	5-6	3500-6000	irr. flood.	5'	8'
<i>Aronia melanocarpa</i>	Black Chokecherry	N/A	3a	up to 7500	adaptable	3' - 6'	3' - 6'
<i>Artemisia frigida</i>	Fringed/Pasture Sagebrush	N/A	2	up to 1000	xeric	up to 2'	8"-12"
<i>Artemisia tridentata</i>	Big Sagebrush	N/A	3-6	7000-8000	xeric	3'-12'	3'-6'
<i>Atriplex canescens</i>	Four-wing Saltbush	N/A	-	-	xeric	3'-6'	4'-8'
<i>Betula nana (B. glandulosa)</i>	Bog Birch/Dwarf Birch	FAC/OBL	2-4	7500->11400	saturation	3'-6'	4'
<i>Betula occidentalis (B. fontinalis)</i>	Water Birch	FAC/FACW	3-5	5000-9000	seas. flood.	30'	20'
<i>Celtis laevigata var. reticulata</i>	Net-leaf Hackberry	N/A	6	4000-7200	mesic to xeric	7' - 20'	10' - 20'
<i>Cercocarpus ledifolius</i>	Curl-leaf Mountain Mahogany	N/A	3	6500-9000	mesic to xeric	30"-42"	5'-12'
<i>Cercocarpus montanus</i>	Birch-leaf Mountain Mahogany	N/A	4-7	4000-8500	xeric	5'-6'	3'-5'
<i>Cornus sericea</i>	Red-Osier Dogwood	FAC/FACW+	3-6	3000-11500	moist to sat.	10'	10'
<i>Cornus sericea var. Flaviramea</i>	Yellow-twig Dogwood	N/A	1-6	up to 9000	moist to sat.	6'-8'	6'-8'
<i>Crataegus phaenopyrum</i>	Washington Hawthorn	N/A	4	up to 6500	-	up to 25'	15' -25'
<i>Dasiphora fruticosa (Fentaphylloides floribunda)</i>	Shrubby Cinquefoil	N/A	3-6	up to 9000	xeric to moist	1'-3'	1'-3'
<i>Ericameria nauseosus (Chrysothamnus nauseosus)</i>	Rubber Rabbitbrush	N/A	3-6	2000-10000	xeric	2'-7'	2'-5'
<i>Fraxinus pennsylvanica</i>	Green Ash	FACW	2-4	2000-5700	moist	50'-60'	-
<i>Holodiscus dumosus</i>	Brush Oceanspray	N/A	-	5500-10000	mesic-xeric	20"-60"	3' - 6'
<i>Juniperus communis</i>	Common Juniper	N/A	-	4500 - 11300	mesic - xeric	2' - 3'	7' - 13'
<i>Juniperus scopulorum</i>	Rocky Mountain Juniper	N/A	-	2000 - 10000	mesic - xeric	20' - 50'	8' - 12'
<i>Lonicera involucrata</i>	Twinberry	FAC	2-4	7000->11500	moist	5'	5'
<i>Mahonia aquifolium</i>	Oregon Grape	N/A	4-6	-	moist/adaptable	4'-6'	4'-6'
<i>Mahonia repens</i>	Creeping Oregon Grape	N/A	4	up to 10000	xeric	12"-18"	12"-18"
<i>Parthenocissus quinquefolia</i>	Virginia Creeper	N/A	-	up to 9000	mesic-xeric	vine	50'
<i>Physocarpus monogynus</i>	Small Ninebark	N/A	4	6000-10000	adaptable	2'-4'	2'-4'
<i>Physocarpus opulifolius</i>	Common Ninebark	FAC/FACU	-	4000-7000	moist/adaptable	up to 9'	to 10'
<i>Pinus ponderosa</i>	Ponderosa Pine	N/A	3-6	3500-9000	xeric	75'-150'	50'
<i>Populus angustifolia</i>	Narrow-leaf Cottonwood	FAC/FACW	3-6	5000-9500	seas. flood	50'	35'
<i>Populus deltoides (P. sargentii)</i>	Plains Cottonwood	FAC/FACW	5-6	3500-6000	seas. flood	80'	50'
<i>Populus tremuloides</i>	Quaking Aspen	FAC	3-6	up to 10000	xeric to moist	40'	20'
<i>Prunus americana</i>	American Plum	FACU	5-6	3000-6000	xeric to moist	12'	10'

# Quick Reference Guide – Woody Species

Scientific Name	Common Name	Nationwide Wetland Indicator	USDA Zone	Elevation Range (ft)	Hydrologic Regime	Mature Height	Aerial Spread
<i>Prunus besseyi</i>	Western Sandcherry	UPL/FACU	3-7	up to 9000	xeric to moist	4'-6'	4'-6'
<i>Prunus x cistena</i>	Purple-leaf Chokecherry	N/A	3-7	up to 8500	adaptable	6'-8'	4'-6'
<i>Prunus tometosa</i>	Nanking Cherry	N/A	2-7	up to 9000	adaptable	6'-10'	6'-12'
<i>Prunus virginiana</i>	Chokecherry	FACU-/FAC	3-5	4500-9,000	seas. moist	25'	20'
<i>Prunus virginiana 'Schubert'</i>	Schubert Chokecherry	N/A	2-6	-	adaptable	15'-20'	10'-15'
<i>Quercus gambelii</i>	Gambel Oak	N/A	4-6	up to 9000	xeric	15'-30'	15'
<i>Rhus aromatica canadensis</i>	Fragrant Sumac	N/A	3-9	-	adaptable/xeric	6'-12'	12'-20'
<i>Rhus glabra</i>	Smooth Sumac	N/A	3-9	2700-7500	variable	2'-20'	8' - 10'
<i>Rhus trilobata</i>	Skunkbush	N/A	3-6	up to 9000	xeric	2'-8'	3'-6'
<i>Rhus hirta (typhina)</i>	Staghorn Sumac	N/A	4-8	up to 8500	adaptable/xeric	30' -35'	10' - 15'
<i>Ribes aureum</i>	Golden Currant	FACW	4-6	up to 8000	seas. sat.	3.5'-10"	5'
<i>Ribes cereum</i>	Wax Currant	N/A	3-6	2500-9000	xeric	4'-6'	4'-6'
<i>Rosa rugosa</i>	Rugosa Rose	N/A	2-7	up to 9000	adaptable	4'-6'	4'-5'
<i>Rosa woodsii</i>	Wood's Rose	FACU/FAC-	2-6	3000-11700	seas. moist	2'-6'	4'
<i>Rubus parviflorus</i>	Thimbleberry	FAC	-	3500-10000	seas. moist	2'-8'	3'-5'
<i>Salix amygdaloides</i>	Peach-leaf Willow	FACW	4-6	up to 9500	seas. flood.	30'	40'
<i>Salix bebbiana</i>	Bebb's Willow	FACW		3000-9600	moist to sat.	30'	-
<i>Salix exigua</i>	Coyote Willow	FACW/OBL	3-9	3,400 - 9,500	irr. flood.	26'	6'
<i>Salix geyeriana</i>	Geyer's Willow	OBL	3-5	6000-10000	moist	15'	15'
<i>Salix monticola</i>	Mountain Willow	OBL	3-5	5200-12000	moist	8'-12'	6'-8'
<i>Salix planifolia</i>	Planeleaf Willow	OBL	3-5	4000-13000	irreg. flood	8'-12'	6'
<i>Sambucus racemosa (S. microbotryus)</i>	Redberried Elder	FACU	3-6	3500-11000	moist	2'-20'	10'-15'
<i>Sheperdia argentea</i>	Silver Buffaloberry	N/A	2-6	7500-11000	moist to xeric	3.5'-20'	10'-15'
<i>Sheperdia canadensis</i>	Russet Buffaloberry	N/A	3-6	4950-8200	adaptable/xeric	3'-13'	3'-6'
<i>Symphoricarpos albus</i>	Common Snowberry	FACU+	3-6	5000-8000	xeric to moist	2'-4'	5'
<i>Symphoricarpos occidentalis</i>	Western Snowberry	not rated	3-6	3000-11500	seas. moist	3'	5'
<i>Symphoricarpos orbiculatus</i>	Coralberry	N/A	2-7	up to 8500	adaptable	2'-3'	3'-6'
<i>Syringa villosa</i>	Late Lilac	N/A	3-7	Hardy to 10000	adaptable/xeric	6'-10'	4'-10'
<i>Syringa vulgaris</i>	Common Purple Lilac	N/A	3-7	Hardy to 10000	adaptable	10'-20'	8'-12'
<i>Viburnum lentago</i>	Nannyberry	N/A	3-7	Hardy to 8500	xeric to adaptable	8' - 15'	6' - 8'
<i>Yucca glauca</i>	Yucca	N/A	5-10	2500 - 9000	xeric	1' - 6'	3'

# Herbaceous Species Descriptions

## *Acorus calamus* Sweetflag

**CHARACTERISTICS:** Has long sword-like leaves similar to iris and a distinct sweet odor when crushed. It is increasingly rare due to urbanization. Provides food and cover for waterfowl and small mammals.

**COMMUNITY:** Grows at elevations from 3500' - 5100'.

Wetland Indicator: OBL  
 Hydrologic Regime: up to 6"  
 USDA Zone: 3-5  
 Salinity Tolerance: M  
 Acidity Tolerance: L-M  
 Height: 24"-36"  
 Rate of Spread: medium

## *Agrostis stolonifera* Creeping Bentgrass, Redtop

**CHARACTERISTICS:** Stoloniferous perennial that is sometimes mat forming or tufted. Provides good forage for elk and cover for upland game birds and waterfowl. It is moderately effective in stabilizing streambanks due to its typically dense network of intertwining roots and rhizomes.

**COMMUNITY:** Introduced to the U.S. but it is cultivated throughout the country. Occurs in a wide variety of habitats. It is most commonly found in moist places such as recently exposed sand and gravel bars, wet meadows and along streams. Also grows in disturbed sites such as ditches, roadsides and pastures. Can be found in salt marshes. Moderately tolerant to drought and flooding.

Wetland Indicator: FAC+, FACW  
 Hydrologic Regime: Sat.  
 USDA Zone:  
 Salinity Tolerance: M  
 Acidity Tolerance: -  
 Height: 1'-3'  
 Rate of Spread: medium

## *Asclepias incarnata* Marsh or Swamp Milkweed

**CHARACTERISTICS:** A rhizomatous perennial with showy pink flowers from June to August. Can tolerate seasonal flooding and periodic drought. Provides food and shelter for upland birds and small animals.

**COMMUNITY:** Occurs with sedges and grasses in wet meadows and ditches at elevations from 3,000' to 6,000'.

Wetland Indicator: OBL  
 Hydrologic Regime: Seas. Sat.  
 USDA Zone: 4-6  
 Salinity Tolerance: M  
 Acidity Tolerance: -  
 Height: up to 4'  
 Rate of Spread: slow

## *Beckmannia syzigachne* Sloughgrass

**CHARACTERISTICS:** Large erect annual grass that develops short rhizomes. It is excellent for riparian restoration. The leaves are food for small mammals and the grains are eaten by waterfowl.

**COMMUNITY:** Grows along slow moving streams and ditches at elevations from 4,500' to 10,600'.

Wetland Indicator: OBL  
 Hydrologic Regime: Seas. Flood.  
 USDA Zone: 3-5  
 Salinity Tolerance: -  
 Acidity Tolerance: L  
 Height: 36'  
 Rate of Spread: rapid

## *Calamagrostis acutiflora 'Karl Forester'* Feather Reed Grass

**CHARACTERISTICS:** A tall ornamental grass with purple flowers and dark green foliage. Good for year-round interest

**COMMUNITY:** Grows in moist soils and has no known pests.

Hydrologic Regime: Adaptable/moist  
 USDA Zone: 4-9  
 Salinity Tolerance: -  
 Acidity Tolerance: -  
 Height: 5'  
 Rate of Spread: 18"-24"



# Herbaceous Species Descriptions

## *Calamagrostis canadensis* Blue-joint Reedgrass

**CHARACTERISTICS:** The most common and widespread *Calamagrostis* species in North America. It is a sod former and an excellent streambank stabilizer. Provides a large amount of forage for big game species and livestock, especially for elk in the winter.

**COMMUNITY:** Occurs on a wide variety of sites from lowland wet sites, semishaded woodland, to windswept alpine ridges, but it prefers wet sites. It is found from sea level to 11,500'. Associated with fireweed, beaked sedge, tufted hairgrass, Geyer willow, Booth's willow, Wolf's willow, subalpine fir, lodgepole pine and Englemann spruce.

Wetland Indicator: OBL  
 Hydrologic Regime: Seas.Sat.  
 USDA Zone: 2-5  
 Salinity Tolerance: L  
 Acidity Tolerance: H  
 Height: 24" - 48"  
 Rate of Spread: medium

## *Carex aquatilis* Water Sedge

**CHARACTERISTICS:** A strongly rhizomatous perennial that tolerates heavy metal contamination in soil and water. It is grazed by many ungulates, including moose, caribou and elk, but is not a major component of their diet, probably due to its swampy habitat. Provides cover for some birds, waterfowl and small mammals. The overhanging, rhizomatous masses of sod formed by water sedge on streambanks provide shade and cover for fish.

**COMMUNITY:** Inhabits wet meadows and pond edges from 5,100' to 13,000'. Colonizes disturbed areas. Associated with willows, other sedges (especially *C. utriculata*), tufted hairgrass, Baltic rush, bog birch and spike rush.

Wetland Indicator: OBL  
 Hydrologic Regime: up to 3"  
 USDA Zone: 2-5  
 Salinity Tolerance: L  
 Acidity Tolerance: M  
 Height: 6"-24"  
 Rate of Spread: medium

## *Carex bebbii* Bebb's Sedge

**CHARACTERISTICS:** A cool season, grasslike, tufted perennial. This species provides good waterfowl cover and is palatable to livestock and wildlife.

**COMMUNITY:** Found in wet meadows, ditches and swales from 3,000' to 10,000'.

Wetland Indicator: OBL  
 Hydrologic Regime: Seas.Sat.  
 USDA Zone: 3-6  
 Salinity Tolerance: L  
 Acidity Tolerance: -  
 Height: 10"-20"  
 Rate of Spread: medium

## *Carex buechananii* Leatherleaf Sedge

**CHARACTERISTICS:** Ornamental sedge with multicolored (copper/red) foliage. It forms tight clumps and is an excellent accent for wet areas.

**COMMUNITY:** Found on wet/riparian sites up to 6,500'. It is shade tolerant. Grows best in fast draining, rocky soil.

Wetland Indicator: N/A  
 Hydrologic Regime: Saturated  
 USDA Zone: 6-9  
 Salinity Tolerance: -  
 Acidity Tolerance: -  
 Height: 1'-2'  
 Rate of Spread: -

## *Carex lasiocarpa (C. lanuginosa)* Woolly Sedge

**CHARACTERISTICS:** Long tough rhizomes make it a good streambank stabilizer. Can tolerate dry periods. Good waterfowl cover.

**COMMUNITY:** Prefers sunny wet meadows with shallow standing water or a water table at the soil surface. Found at elevations of 3,000' to 10,200'.

Wetland Indicator: OBL  
 Hydrologic Regime: Seas.Flood.  
 USDA Zone: 3-6  
 Salinity Tolerance: L  
 Acidity Tolerance: L  
 Height: 12"-30"  
 Rate of Spread: medium

# Herbaceous Species Descriptions

## *Carex microptera*

### Small-wing Sedge

**CHARACTERISTICS:** A montane/subalpine sedge which tolerates a wide range of hydrologic regimes. Cover for small mammals and waterfowl.

**COMMUNITY:** Grows at elevations from 4,500' to 11,500'.

Wetland Indicator: FAC  
 Hydrologic Regime: Moist Sat.  
 USDA Zone: 2-5  
 Salinity Tolerance: -  
 Acidity Tolerance: -  
 Height: 8"-16"  
 Rate of Spread: medium

## *Carex nebrascensis*

### Nebraska Sedge

**CHARACTERISTICS:** Very common species which prefers constantly wet sites where water is not deep. Its shiny blue-green foliage adds color. This plant offers excellent cover for waterfowl and small mammals.

**COMMUNITY:** Does especially well along moving water. Found at elevations from 3,000' to 11,500'.

Wetland Indicator: OBL  
 Hydrologic Regime: Seas. Sat.  
 USDA Zone: 3-6  
 Salinity Tolerance: M  
 Acidity Tolerance: L  
 Height: 10"-24"  
 Rate of Spread: medium

## *Carex scopulorum*

### Rocky Mountain Sedge

**CHARACTERISTICS:** Often occurs where late lying snowpacks create seasonal inundation. Recognized by its black scales. Sometimes eaten by waterfowl

**COMMUNITY:** Found at higher elevations of 9,000' to 11,500'.

Wetland Indicator: FACW  
 Hydrologic Regime: Seas. Flood.  
 USDA Zone: 2-3  
 Salinity Tolerance: -  
 Acidity Tolerance: -  
 Height: 8"-16"  
 Rate of Spread: medium

## *Carex utriculata (C. rostrata)*

### Beaked Sedge

**CHARACTERISTICS:** A large, very common and wide ranging species that forms dense, tufted sod. Tolerates heavy metal contamination in soil and water and seasonal saturation. Important breeding and feeding habitat for geese and other waterfowl. It forms a dense sod on streambanks, which when undercut provides good shade and cover for fish. Has high potential for biomass production and long-term revegetation.

**COMMUNITY:** Grows from 2,500' to 11,000'. Often associated with *C. aquatilis*.

Wetland Indicator: OBL  
 Hydrologic Regime: Seas. Sat.  
 USDA Zone: 2-5  
 Salinity Tolerance: L  
 Acidity Tolerance: M  
 Height: 12"-48"  
 Rate of Spread: rapid

## *Deschampsia cespitosa*

### Tufted Hairgrass

**CHARACTERISTICS:** A cool season, dense perennial bunchgrass. Recommended for mine reclamation. Leaves are stiff and sharp pointed and flowered spikelets are tinged purple. Very palatable to wildlife.

**COMMUNITY:** Occurs on the margins of ponds and fens at elevations from 5,000' to 11,500'.

Wetland Indicator: FACW  
 Hydrologic Regime: up to 3"  
 USDA Zone: 2-5  
 Salinity Tolerance: L  
 Acidity Tolerance: M  
 Height: 18"-30"  
 Rate of Spread: medium



# Herbaceous Species Descriptions

## *Distichlis spicata (D. stricta)*

### Inland Saltgrass

**CHARACTERISTICS:** A warm season, rhizomatous grass that forms spreading mats on salt flats. The plants are able to survive in saline environments because of salt glands that are active in the extrusion of salt. Reproduction is mainly vegetative. It has a moderate to high drought tolerance.

**COMMUNITY:** Saltgrass attains best development in depressed areas that receive seasonal runoff or have water tables near the soil surface. Tends to form a dense sod only in highly saline conditions. Associated grasses include alkaligrass, foxtail barley, western wheatgrass, alkali sacaton and plains bluegrass. Found at elevations up to 9,000'. The seeds are eaten by numerous species of waterfowl and small mammals.

Wetland Indicator: FACW  
 Hydrologic Regime: Seas. Flood.  
 USDA Zone: -  
 Salinity Tolerance: H  
 Acidity Tolerance: H  
 Height: 4" - 12"  
 Rate of Spread: medium

## *Eleocharis acicularis*

### Least Spikerush

**CHARACTERISTICS:** A small, rhizomatous perennial. It is a food source for waterfowl.

**COMMUNITY:** Found along margins of ponds and in marshes and mud flats from 5,000' to 12,000'.

Wetland Indicator: OBL  
 Hydrologic Regime: up to 3"  
 USDA Zone: 3-6  
 Salinity Tolerance: L  
 Acidity Tolerance: L  
 Height: 6"-18"  
 Rate of Spread: rapid

## *Eleocharis palustris*

### Creeping Spikerush

**CHARACTERISTICS:** Tolerates alkaline conditions. An excellent soil stabilizer. Food source for waterfowl.

**COMMUNITY:** A common species on the margins of ponds from 3,400' to 10,700'.

Wetland Indicator: OBL  
 Hydrologic Regime: up to 6"  
 USDA Zone: 3-9  
 Salinity Tolerance: M  
 Acidity Tolerance: L  
 Height: 6"-30"  
 Rate of Spread: rapid

## *Gaillardia aristata*

### Native Blanket Flower

**CHARACTERISTICS:** Yellow ray flowers with a dark orange center. Drought tolerant

**COMMUNITY:** Reseeds itself. Hardy to 9,000. Great for use in water-wise landscaping and along roadsides or drainage ditch slopes.

Hydrologic Regime: Dry  
 USDA Zone:  
 Salinity Tolerance: -  
 Acidity Tolerance: -  
 Height: 18"-24"  
 Rate of Spread: -

## *Glyceria grandis var. grandis*

### American or Tall Mannagrass

**CHARACTERISTICS:** Tall perennial grass with creeping rhizomes. Food source for waterfowl and browse for deer.

**COMMUNITY:** Occurs along rivers and in sloughs of the Great Plains.

Wetland Indicator: OBL  
 Hydrologic Regime: Seas. Flood.  
 USDA Zone: -  
 Salinity Tolerance: -  
 Acidity Tolerance: -  
 Height: 4'-5'  
 Rate of Spread: -

# Herbaceous Species Descriptions

## *Glyceria striata* Fowl Mannagrass

**CHARACTERISTICS:** Very fast growing perennial grass. Can withstand seasonal flooding. Important browse for deer and waterfowl food.

**COMMUNITY:** Occurs in shallow standing water or along slow moving water at elevations from 3,500' to 10,500'.

Wetland Indicator: OBL  
 Hydrologic Regime: Seas.Flood.  
 USDA Zone: 3-8  
 Salinity Tolerance: L  
 Acidity Tolerance: -  
 Height: 24"-36"  
 Rate of Spread: rapid

## *Helianthus maximilliani* Maximillian's Sunflower

**CHARACTERISTICS:** A rhizomatous, aggressive, bunching perennial with attractive yellow flowers in the late summer. Suggested for use on roadsides, in parks, for wildlife habitat, and in establishing prairies. It is a valuable winter food source for birds and mammals.

**COMMUNITY:** Occurs on dry to moist open prairie, often on sandy sites. It is also found on waste ground, roadsides, pastures, fence rows, riverbanks and other disturbed areas. Found from 2,300' to 7,000'

Wetland Indicator: UPL/FACU  
 Hydrologic Regime: Moist to Dry  
 USDA Zone:  
 Salinity Tolerance:  
 Acidity Tolerance: -  
 Height: 3'-7'  
 Rate of Spread: rapid

## *Helianthus nuttallii* Marsh Sunflower

**CHARACTERISTICS:** This species has striking yellow flowers during the summer months. Offers food for upland birds.

**COMMUNITY:** A common species along the drier margins of marshes at 3,000' - 6,000'.

Wetland Indicator: FAC/FACW  
 Hydrologic Regime: Seas.Flood.  
 USDA Zone: 4-6  
 Salinity Tolerance: M  
 Acidity Tolerance: -  
 Height: up to 6'  
 Rate of Spread: medium

## *Iris missouriensis* Rocky Mountain Iris

**CHARACTERISTICS:** Common perennial with showy blue flowers from May to June. Prefers sites that have summer dry period. Can tolerate temporary flooding. Not palatable for grazing animals.

**COMMUNITY:** Grows slowly in wet meadows from plains to mountains at elevations between 1,000' and 7,500'.

Wetland Indicator: OBL  
 Hydrologic Regime: Seas.Sat.  
 USDA Zone: 2-5  
 Salinity Tolerance: M  
 Acidity Tolerance: L  
 Height: 18"-24"  
 Rate of Spread: slow

## *Juncus balticus (J. arcticus)* Baltic Rush

**CHARACTERISTICS:** A common, thick, mat-forming species. An excellent streambank stabilizer due to its thick rhizomes. Because it increases with grazing, it provides good protection against erosion on overgrazed sites. Can tolerate saline soils. An important forage species for elk and livestock. Important nesting, hiding and feeding cover for shorebirds and waterfowl.

**COMMUNITY:** Found from sea level to 11,500' in wet meadows, along streambanks, ponds, freshwater and brackish marshes, and sometimes in dry flats and meadows. Associated with other rushes, sedges, saltgrass, needle spikeseed, reedtop, timothy, tufted hairgrass, and alkali sacaton.

Wetland Indicator: OBL/FACW  
 Hydrologic Regime: Moist to Sat.  
 USDA Zone: 2-6  
 Salinity Tolerance: M  
 Acidity Tolerance: M  
 Height: 6"-30"  
 Rate of Spread: medium



# Herbaceous Species Descriptions

## *Juncus compressus*

### Round-fruit Rush

**CHARACTERISTICS:** Soft rush with clumping habit. Small mammal cover.

**COMMUNITY:** Very common on alpine tundra, in subalpine meadows, streambanks, talus slopes and ridges and among conifer forests.

Wetland Indicator: FACW  
 Hydrologic Regime: Seas.Sat.  
 USDA Zone: -  
 Salinity Tolerance: -  
 Acidity Tolerance: -  
 Height: 6"-24"  
 Rate of Spread: -

## *Juncus confusus*

### Colorado Rush

**CHARACTERISTICS:** Common species that prefers moist sites. Offers food and cover for waterfowl.

**COMMUNITY:** Found from 5,000' to 12,500'.

Wetland Indicator: FAC+  
 Hydrologic Regime: Moist to Sat.  
 USDA Zone: 2-6  
 Salinity Tolerance: L  
 Acidity Tolerance: -  
 Height: 6"-12"  
 Rate of Spread: medium

## *Juncus effusus*

### Soft Rush

**CHARACTERISTICS:** A clump-forming, widespread, rhizomatous perennial rush. Have a deep, fibrous root system which provides good shoreline protection. With its low pH and metal tolerances, it often survives polluted conditions. The seeds and vegetative parts are utilized by waterfowl, muskrats, non-game birds and moose for food. Good cover and food for waterfowl.

**COMMUNITY:** Grows in shrub swamps, wet meadows and ditches. Tolerates a variety of conditions, but thrives in direct sun and finely textured soils. Seed dispersal is the primary means of reproduction

Wetland Indicator: FACW  
 Hydrologic Regime: up to 6"  
 USDA Zone: 1-9  
 Salinity Tolerance: L  
 Acidity Tolerance: -  
 Height: 12"-48"  
 Rate of Spread: slow

## *Juncus hallii*

### Hall's Rush

**CHARACTERISTICS:** A subalpine species which can tolerate poor rocky substrates.

**COMMUNITY:** Found at elevations from 9,000 - 11,500'.

Wetland Indicator: FAC  
 Hydrologic Regime: Moist to Sat.  
 USDA Zone: 2-3  
 Salinity Tolerance: -  
 Acidity Tolerance: M  
 Height: 8"-16"  
 Rate of Spread: medium

## *Juncus mertensianus*

### Merten's Rush

**CHARACTERISTICS:** A relatively slow grower. Small mammal cover.

**COMMUNITY:** Grows in alpine and subalpine meadows. Common to streambank and shoreline habitats.

Wetland Indicator: OBL  
 Hydrologic Regime: Saturated  
 USDA Zone: 2-3  
 Salinity Tolerance: -  
 Acidity Tolerance: -  
 Height: 4"-16"  
 Rate of Spread: medium

# Herbaceous Species Descriptions

## *Juncus nodosus*

### Knotted Rush

CHARACTERISTICS: Widespread grasslike plants. Similar to *J. effusus*. Small mammal cover.

COMMUNITY: Grows in wet meadows, marshes, edges of ponds in shallow water from 3,500' to 7,500'.

Wetland Indicator: OBL  
 Hydrologic Regime: Seas. Sat.  
 USDA Zone: 4-6  
 Salinity Tolerance: M  
 Acidity Tolerance: -  
 Height: 8"-24"  
 Rate of Spread: rapid

## *Juncus saximontanus*

### Rocky Mountain Rush

CHARACTERISTICS: Wide ranging, slow growing species. Small mammal cover.

COMMUNITY: Found in wet meadows, sand lakeshores and along streambanks from 4,000' to 11,500'.

Wetland Indicator: FACW+  
 Hydrologic Regime: Seas. Sat.  
 USDA Zone: 2-5  
 Salinity Tolerance: -  
 Acidity Tolerance: L  
 Height: 5"-24"  
 Rate of Spread: slow

## *Juncus tenuis*

### Poverty Rush

CHARACTERISTICS: Can tolerate drought and partial shade. Small mammal cover.

COMMUNITY: Found at elevations from 4,500' to 9,000'.

Wetland Indicator: FAC  
 Hydrologic Regime: Moist to Sat.  
 USDA Zone: 4-5  
 Salinity Tolerance: -  
 Acidity Tolerance: -  
 Height: 6"-12"  
 Rate of Spread: medium

## *Juncus torreyi*

### Torrey's Rush

CHARACTERISTICS: A strongly rhizomatous rush. Can tolerate wet or drought conditions.

COMMUNITY: Found along the margins of marshes and ditches at elevations from 3,400' - 8,000'.

Wetland Indicator: FACW/FACW+  
 Hydrologic Regime: Saturated  
 USDA Zone: 4-9  
 Salinity Tolerance: -  
 Acidity Tolerance: -  
 Height: 6"-18"  
 Rate of Spread: rapid

## *Miscanthus sinensis 'Gracillimus'*

### Maiden Grass

CHARACTERISTICS: An ornamental grass with a fine texture, upright arching habit and coppery seedhead.

COMMUNITY: Tolerates most soils and is hardy to 7,000'.

Hydrologic Regime: Saturated  
 USDA Zone: 5-9  
 Salinity Tolerance: -  
 Acidity Tolerance: -  
 Height: 5' -6'  
 Rate of Spread: -



# Herbaceous Species Descriptions

## *Miscanthus sinensis 'Morning Light'*

### Dwarf Maiden Grass

**CHARACTERISTICS:** An ornamental grass with a compact habit. Green leaves have a white band.

**COMMUNITY:** Prefers full sun.

Hydrologic Regime: Adaptable  
 USDA Zone: 5-9  
 Salinity Tolerance: -  
 Acidity Tolerance: -  
 Height: 4' - 5'  
 Rate of Spread:

## *Miscanthus sinensis var. strictus*

### Porcupine Grass

**CHARACTERISTICS:** An ornamental grass with a stiff upright habit. Green leaves with horizontal gold stripe.

**COMMUNITY:** Prefers full sun. Will grow in water 2" to 4" deep. Tolerates wet, boggy soil.

Hydrologic Regime: Saturated  
 USDA Zone: 4-9  
 Salinity Tolerance: -  
 Acidity Tolerance: -  
 Height: 4' - 6'  
 Rate of Spread:

## *Panicum virgatum*

### Switchgrass

**CHARACTERISTICS:** A sod former found on a wide variety of sites. Useful for controlling soil erosion. It is nutritious to livestock and wildlife and the seeds are sought by birds and small mammals. It is one of the original grasses of the tall grass prairie.

**COMMUNITY:** Found at 3,400' - 7,800'.

Wetland Indicator: FAC  
 Hydrologic Regime: Seas. Sat.  
 USDA Zone: 2  
 Salinity Tolerance: -  
 Acidity Tolerance: -  
 Height: up to 25"  
 Rate of Spread: slow

## *Pascopyrum smithii* (*Agropyron smithii*)

### Western Wheatgrass

**CHARACTERISTICS:** One of the best known and most commonly used native grasses. It is a long-lived, cool season species that has coarse blue-green leaves with prominent veins. It is a sod former with very strong, spreading rhizomes, which make it excellent for erosion control. It is widely used for range seeding and revegetation of saline and alkaline areas, and surface mine reclamation. Forage quality is high.

**COMMUNITY:** Adapted to a wide variety of soils, but prefers heavier, well-drained soils. Requires moderate to high soil moisture, but can tolerate moderately severe drought. Associated with blue gramma, buffalo grass, needlegrasses, and bluebunch. Found at elevations from 1,000' to 9,000'.

Hydrologic Regime: Adaptable  
 USDA Zone:  
 Salinity Tolerance: M-H  
 Acidity Tolerance: M-H  
 Height: 1' - 3'  
 Rate of Spread: medium

## *Pennisetum alopecuroides 'Hameln'*

### Dwarf Fountain Grass

**CHARACTERISTICS:** A clump forming ornamental grass with a fountain habit. Feathery, pink arching spikes are 3" to 4" long and 1" to 2" wide.

**COMMUNITY:** Prefers full sun.

Hydrologic Regime: Adaptable  
 USDA Zone:  
 Salinity Tolerance: -  
 Acidity Tolerance: -  
 Height: 12" - 20"  
 Rate of Spread:

# Herbaceous Species Descriptions

## *Pennisetum alopecuroides* 'Little Bunny'

## Little Bunny Fountain Grass

**CHARACTERISTICS:** The smallest of the dwarf fountain grasses. Grows in clumps. Forms a dense mound with white flower spikes.

**COMMUNITY:** Prefers full sun.

Hydrologic Regime: Adaptable  
 USDA Zone:  
 Salinity Tolerance: -  
 Acidity Tolerance: -  
 Height: 10" - 12"  
 Rate of Spread:

## *Penstemon barbatus*

## Scarlet Bugler

**CHARACTERISTICS:** A native wildflower with stunning red flowers that is common in the foothills and mountain meadows of the southern Rockies. The long evergreen leaves form a flat rosette out of which the tall spikes of scarlet flowers appear in early summer.

**COMMUNITY:** Arecommended species for the cold, short season areas of the Rocky Mountain West.b Caution: this plant is very aggressive.

Hydrologic Regime: Xeric  
 USDA Zone: 4 -8  
 Salinity Tolerance: -  
 Acidity Tolerance: -  
 Height: 2' -3'  
 Rate of Spread: slow

## *Penstemon strictus*

## Rocky Mountain Penstemon

**CHARACTERISTICS:** A native, perennial cool season, forb with a few large underground stems and many fine roots. The flowers are showy blue to purple and occur primarily between mid-may and the end of June. Recommended for erosion control, diversity and beautification. Considered desirable forage for deer, antelope and birds.  
**COMMUNITY:** Occurs at 6,000' - 10,000'. It is best adapted to soil that is medium to sandy to rocky textured, weakly acidic to alkaline and well-drained. Tolerates dry conditions. Usually found in open areas, but will tolerate semi-shaded conditions.

Hydrologic Regime: Xeric  
 USDA Zone:  
 Salinity Tolerance: L-M  
 Acidity Tolerance: L-M  
 Height: 18"-24"  
 Rate of Spread: slow

## *Phragmites australis* (*P. communis*)

## Common or Giant Reed

**CHARACTERISTICS:** This is the tallest perennial grass in the Rocky Mountain region. It has flat wide leaf blades and a plume-like seed head, usually colored purple or brown.

**COMMUNITY:** Occurs at lower elevations along floodplains, ditches and reservoirs, often in shallow standing water.

Wetland Indicator: FACW  
 Hydrologic Regime: Seas.Flood.  
 USDA Zone: 4-10  
 Salinity Tolerance: M  
 Acidity Tolerance: -  
 Height: 6'-8'  
 Rate of Spread: rapid

## *Puccinellia nuttalliana* (*P. airoides*)

## Nuttall's Alkali Grass

**CHARACTERISTICS:** A rhizomatous grass that is highly tolerant of alkaline conditions. Can tolerate temporary flooding. Small mammal cover.

**COMMUNITY:** Native to the Western U.S. Occupies saline flats and edges of plains, reservoirs from 3,000' to 6,000'.

Wetland Indicator: OBL  
 Hydrologic Regime: Seas.Flood  
 USDA Zone: 4-6  
 Salinity Tolerance: H  
 Acidity Tolerance: L  
 Height: 6"-12"  
 Rate of Spread: medium



# Herbaceous Species Descriptions

## *Puccinellia distans*

### Weeping Alkaligrass

**CHARACTERISTICS:** A perennial sod former with shallow, fibrous root system. Excellent for establishing cover on saline soils.

**COMMUNITY:** Found in alkali flats and reservoir shores.

Wetland Indicator: OBL  
Hydrologic Regime: M  
USDA Zone: 4-6  
Salinity Tolerance: H  
Acidity Tolerance: L  
Height: up to 24"  
Rate of Spread: medium

## *Rudbeckia hirta*

### Black-eyed Susan

**CHARACTERISTICS:** A native, warm-season forb with a showy orange-yellow daisy flower with a black center. Recommended for restoration of disturbed areas and prairies. Not highly palatable to wildlife.

**COMMUNITY:** Found throughout most of North America in plains and open woods, sunny roadsides and meadows, sandhills and bogs, and disturbed places. It is associated with monkey flower, mountain brome, Rocky Mountain iris, chokecherry and leadplant. Low to moderate water requirements and grows in full sun to partial shade. Hardy to 8,000'.

Hydrologic Regime:  
USDA Zone:  
Salinity Tolerance: -  
Acidity Tolerance: -  
Height: 24" - 36"  
Rate of Spread:

## *Sagittaria latifolia*

### Arrowhead

**CHARACTERISTICS:** A common wetland perennial with white flowers with yellow centers in July-August. One of the more decorative wetland plants. Produces a large tuber which waterfowl devour! Stems, tubers and roots also eaten by small mammals.

**COMMUNITY:** Found in marshes and ponds in 6"-12" of water at elevations of 1,000' to 6,000'.

Wetland Indicator: OBL  
Hydrologic Regime: up to 12"  
USDA Zone: 5-7  
Salinity Tolerance: M  
Acidity Tolerance: L  
Height: 6"-18"  
Rate of Spread: rapid

## *Schizachyrium scoparium*

### Little Bluestem

**CHARACTERISTICS:** A medium height, warm-season grass with coarse stems and basal leaves. The plants are green, but often purplish at the base of the stem. Fall color is bronze to flaming orange. Provides nice ornamental quality in winter.

**COMMUNITY:** A widely adaptable persistent, low-maintenance bunch grass that is recommended for erosion control on sites subject to drought.

Hydrologic Regime: Xeric  
USDA Zone: 3-10  
Salinity Tolerance: -  
Acidity Tolerance: -  
Height: 2' -3'  
Rate of Spread:

## *Schoenoplectus acutus (Scirpus acutus)*

### Hard-stem Bulrush

**CHARACTERISTICS:** A strongly rhizomatous species that forms large stands; Provides a good shoreline buffer; Rapid spread rate makes it an excellent soil stabilizer. Food and cover for small mammals and waterfowl.

**COMMUNITY:** Widespread throughout most of the U.S. Found in marshes from 3,500' to 9,000'.

Wetland Indicator: OBL  
Hydrologic Regime: up to 36"  
USDA Zone: 3-7  
Salinity Tolerance: M  
Acidity Tolerance: L  
Height: up to 6'  
Rate of Spread: rapid

# Herbaceous Species Descriptions

## ***Schoenoplectus maritimus* (*Scirpus maritimus*, *Scirpus paludosus*)** Alkali Bulrush

**CHARACTERISTICS:** A stout species; Valuable species for alkaline and saline sites. Creates good cover for waterfowl.

**COMMUNITY:** Found in marshes from 1,000' up to 11,500'.

Wetland Indicator: OBL  
 Hydrologic Regime: up to 6"  
 USDA Zone: 3-7  
 Salinity Tolerance: H  
 Acidity Tolerance: -  
 Height: 24"-36"  
 Rate of Spread: medium

## ***Schoenoplectus pungens* (*Scirpus pungens*, *Scirpus americanus*)** Three-Square Bulrush

**CHARACTERISTICS:** A fast growing species that can tolerate alkaline and saline conditions. Tolerates drought but intolerant of pollution. Triangular shaped stem gives it its name. Provides cover and food for waterfowl, mammals and upland birds as well.

**COMMUNITY:** Found in marshes from 3,800' to 9,300'.

Wetland Indicator: OBL  
 Hydrologic Regime: up to 6"  
 USDA Zone: 3-7  
 Salinity Tolerance: M  
 Acidity Tolerance: L  
 Height: 24"-48"  
 Rate of Spread: rapid

## ***Schoenoplectus tabernaemontani* (*Scirpus validus*)** Soft-stem Bulrush

**CHARACTERISTICS:** Common in all western marshes. A strongly rhizomatous species; an excellent sediment stabilizer. Tall growing plant up to 6'. Seeds are attractive food for birds.

**COMMUNITY:** Found from 1,000' to 9,000'.

Wetland Indicator: OBL  
 Hydrologic Regime: up to 6"  
 USDA Zone: 3-8  
 Salinity Tolerance: H  
 Acidity Tolerance: -  
 Height: up to 6'  
 Rate of Spread: medium

## ***Scirpus microcarpus*** Small-fruit Bulrush

**CHARACTERISTICS:** This tall perennial can reach a height of 3'. Excellent cover for waterfowl.

**COMMUNITY:** Found along streams, ditches and marshes from 4,500' to 8,600'.

Wetland Indicator: OBL  
 Hydrologic Regime: up to 6"  
 USDA Zone: 3-6  
 Salinity Tolerance: -  
 Acidity Tolerance: -  
 Height: up to 3'  
 Rate of Spread: medium

## ***Scirpus pallidus*** Cloaked Bulrush

**CHARACTERISTICS:** Course, leafy-stemmed perennial from short, stout rhizomes with branched inflorescence. Seed heads are eaten by waterfowl.

**COMMUNITY:** Found along streams, wet ditches and marshes.

Wetland Indicator: OBL  
 Hydrologic Regime: S  
 USDA Zone: 3-6  
 Salinity Tolerance: -  
 Acidity Tolerance: -  
 Height: up to 5'  
 Rate of Spread: -



# Herbaceous Species Descriptions

## *Sparganium eurycarpum*

### Giant Burreed

**CHARACTERISTICS:** A tall species with a decorative "burr" seed head. Tolerates moderate pollution. It is becoming rare in its western range. A good source of waterfowl food and cover.

**COMMUNITY:** Found in marshes from 3,400 to 7,500' with bulrushes.

**Wetland Indicator:** OBL  
**Hydrologic Regime:** up to 12"  
**USDA Zone:** 4-6  
**Salinity Tolerance:** M  
**Acidity Tolerance:** -  
**Height:** 24"-48"  
**Rate of Spread:** rapid

## *Spartina gracilis*

### Alkaline Cordgrass

**CHARACTERISTICS:** A strongly rhizomatous perennial grass. It is drought tolerant and does well in saline sandy soils. A good bank stabilizer.

**COMMUNITY:** Found on alkaline flats and sloughs on the plains and up to 9,000' in the Western U.S.

**Wetland Indicator:** FACW  
**Hydrologic Regime:** M to S  
**USDA Zone:** -  
**Salinity Tolerance:** H  
**Acidity Tolerance:** H  
**Height:** 24" - 36"  
**Rate of Spread:** rapid

## *Spartina pectinata*

### Prairie Cordgrass

**CHARACTERISTICS:** A warm season, dense, sod-forming grass. Good for riparian restoration. Requires full sun. Provides cover for big game and small mammals. One of the original grasses of the tall grass prairie.

**COMMUNITY:** Found in marshes and swales from 3,500' to 7,000'.

**Wetland Indicator:** FACW/OBL  
**Hydrologic Regime:** Seas.Flood.  
**USDA Zone:** 4-9  
**Salinity Tolerance:** M  
**Acidity Tolerance:** L  
**Height:** 36"-60"  
**Rate of Spread:** rapid

## *Sporobolus airoides*

### Alkali Sacaton

**CHARACTERISTICS:** A warm-season bunch grass that prefers fine-textured substrates and alkaline conditions. Provides small mammal cover.

**COMMUNITY:** Can be found in lower elevations from 1,000' to 6,000' in the western and west-central U.S. Very heat and drought resistant.

**Wetland Indicator:** FAC  
**Hydrologic Regime:** Seas.Flood.  
**USDA Zone:** 4-8  
**Salinity Tolerance:** H  
**Acidity Tolerance:** L  
**Height:** 6"-12"  
**Rate of Spread:** medium

## *Triglochin maritimum*

### Arrow-grass or Arrowweed

**CHARACTERISTICS:** A small perennial that is a good choice for alkaline and saline sites. Highly poisonous to livestock

**COMMUNITY:** Found in alkaline flats, fens, and dry washes from 3,000' to 8,500'. Can be invasive.

**Wetland Indicator:** OBL  
**Hydrologic Regime:** Seas.Flood.  
**USDA Zone:** 4-6  
**Salinity Tolerance:** M  
**Acidity Tolerance:** -  
**Height:** 12"-18"  
**Rate of Spread:** slow

# Herbaceous Species Descriptions



## *Typha angustifolia*

### Narrow-leaf Cattail

**CHARACTERISTICS:** An erect, rhizomatous perennial. Their primary means of colonizing is by seed, and once established, colonies are maintained by vegetative reproduction. Tolerant of saline environments. Eaten by waterfowl and muskrats who also use it to make lodges. Serves as a perch for blackbirds, however large mono-typic stands are considered poor wildlife habitat. Without control it will form dense stands that outcompete other species.

**COMMUNITY:** Grows in marshes, wet meadows, fens, estuaries, ditches and along pond shores.

Wetland Indicator: OBL  
 Hydrologic Regime: up to 12"  
 USDA Zone: 5-9  
 Salinity Tolerance: H  
 Acidity Tolerance: M  
 Height: up to 5'  
 Rate of Spread: rapid



## *Typha latifolia*

### Common Cattail or Broad-leaf Cattail

**CHARACTERISTICS:** A dense, rhizomatous perennial. Very tolerant of poor water quality. Forms dense stands. Can be invasive. Offers food and cover for small mammals, waterfowl and big game.

**COMMUNITY:** Found in marshes from 3,400' to 6,000'.

Wetland Indicator: OBL  
 Hydrologic Regime: up to 12"  
 USDA Zone: 3-10  
 Salinity Tolerance: H  
 Acidity Tolerance: M  
 Height: up to 6'  
 Rate of Spread: rapid



## *Verbena hastata*

### Blue Vervain

**CHARACTERISTICS:** Small, showy blue flowers in summer. It is food for small mammals and upland birds.

**COMMUNITY:** A perennial found in marshes with cattails and bulrushes at elevations of 3,400' to 6,000'.

Wetland Indicator: FACW  
 Hydrologic Regime: Seas. Sat.  
 USDA Zone: 4-6  
 Salinity Tolerance: L  
 Acidity Tolerance: -  
 Height: 18"-30"  
 Rate of Spread: slow

This year's catalog features a plethora of new species, including many that belong to the grass family. Grasses are found from pole to pole and contain more species that are distributed worldwide than any other family of plants. They are an important food base for wildlife and form the basis of human sustenance as well -- wheat, corn, and rice are all grasses. In an equally important role, grasses protect soil from wind and water erosion. Best of all, grasses are beautiful. They add a unique form and texture to the landscape in all seasons as well as sound and motion.



## *Acer glabrum*

### Rocky Mountain Maple

**CHARACTERISTICS:** A long-lived native shrub, small tree or clump with a narrow crown and small branches. Greenish-yellow flowers in the spring. Can be used to improve wildlife habitat, provide low-maintenance landscaping and to a limited extent to stabilize slopes. It is a highly valued big game browse species and is especially important as a winter food source. Seeds, buds and flowers provide food for numerous birds and small mammals. Also provides some cover for big game and considerable cover for birds and small mammals.

**COMMUNITY:** Found from 5,000 - 10,000' on slopes across a wide range of moisture conditions, frequently in riparian shrub communities along streams.

Wetland Indicator: FAC  
Hydrologic Regime: Moist to Wet  
USDA Zone: 4  
Mature Height: 5'-15'  
Aerial Spread: 10'-15'

## *Acer grandidentatum*

### Big Tooth Maple

**CHARACTERISTICS:** A deciduous shrub or small tree of variable size - smaller on dry sites and larger on wet ones. It is native to western North America. Foliage turns bright orange to red in the fall. It is a valuable component of riparian woodlands in the Southwest. It provides browse for big game and nesting habitat for numerous birds.

**COMMUNITY:** It is chiefly a tree of mountain terrain. It occupies a wide range of sites, occurring on many soil types, different aspects, and in both moist and dry locations. It is most often located in canyons or ravines on lower slope bases. Occurs between 5,500' - 7,800'. Associated with white fir, Gambel oak, aspen, serviceberry, ninebark, snowberry, and Wood's rose.

Hydrologic Regime: adaptable  
USDA Zone: 3-4  
Mature Height: 25'  
Aerial Spread: 15' - 20'

## *Acer negundo*

### Boxelder

**CHARACTERISTICS:** Boxelder is a native deciduous tree with an irregular form. The trunk often divides near the ground into a few long, spreading, crooked limbs. It is fast growing & short lived. Riparian boxelder communities provide important habitat for many wildlife species. Birds and squirrels feed on the seeds. It is not popular in landscaping but is useful for revegetating floodbasins to provide quality wildlife habitat. It has a shallow root system.

**COMMUNITY:** Widespread in riparian and palustrine communities throughout most of the U.S. Associated with green ash, narrowleaf cottonwood, plains cottonwood, aspen, willow and bur oak. Recommended for conditions of extreme drought and cold.

Wetland Indicator: FAC/FACW  
Hydrologic Regime: Moist to wet  
USDA Zone: 3-9  
Mature Height: 20' - 30'  
Aerial Spread: 20' - 25'

## *Acer tataricum*

### Tatarian Maple

**CHARACTERISTICS:** Tatarian Maple is a deciduous, large shrub or small tree with a round to wide spreading form. It has been introduced to the U.S. It produces greenish-white showy flowers in the spring and red fruits in the summer. The leaves turn yellow and red in the fall.

**COMMUNITY:** A good candidate for Rocky Mountain landscaping because it does well in cold climates and is fairly drought tolerant. Prefers sun but tolerates partial shade and moist soil types. Hardy to 8,500'

Hydrologic Regime: Adaptable to dry  
USDA Zone: 3- 8  
Mature Height: 18'-24'  
Aerial Spread: 18'-20'

## *Alnus incana ssp. tenuifolia (A. tenuifolia)*

### Thinleaf Alder

**CHARACTERISTICS:** Fast growing multi-stemmed species. A good species for providing canopy along streams. It is a nitrogen fixer. Many species of birds feed on the seeds, buds and catkins and the younger plants provide some browse for deer, elk and moose. It provides thermal and hiding cover for big game. Thinleaf alder establishes easily on disturbed sites and has a rapid growth rate; it can quickly stabilize disturbed streambanks. Plants spread well vegetatively and by natural seeding.

**COMMUNITY:** Typically forms narrow bands along mid-elevation (5,000' to 10,000') streams or around springs of moist mountain slopes.

Wetland Indicator: FACW  
Hydrologic Regime: Seas. Flood.  
USDA Zone: 2-6  
Mature Height: 25'  
Aerial Spread: 20'

# Woody Species

## *Amelanchier alnifolia*

### Saskatoon Serviceberry

**CHARACTERISTICS:** A relatively short-lived woody shrub with attractive spring flowers, blue/green foliage and edible fruit. Used for reclamation and wildlife and as an ornamental. Fruits are used in pastries and jellies. Excellent wildlife species; food and cover for birds; browse and cover for big game. Important winter food source for big game species, however, can be fatal as a sole food source.

**COMMUNITY:** Mesic to riparian sites, foothills to sub-alpine. Grows on mountain slopes, hillsides, prairies and is common in riparian areas throughout its distribution. Limited reproduction from seed. Reproduction by sprouting is most common. Not tolerant to drought or deep shade. Seldom grows away from water.

Wetland Indicator: FAC/FACU  
 Hydrologic Regime: Seas. Sat.  
 USDA Zone: 3-5  
 Mature Height: 3'-26'  
 Aerial Spread: 12'

## *Amorpha canescens*

### Desert False Indigo, Leadplant

**CHARACTERISTICS:** An attractive low shrub with spike like racemes of purple flowers in early to mid-spring. Highly recommended for home landscaping. Low value for food and cover for wildlife. However, it is valuable for erosion control due to its deep, branching woody root system. It is a nitrogen fixer. A slow growing, winter-hardy and drought and shade tolerant species.

**COMMUNITY:** Occurs in a variety of habitats in the Great Plains, including dry plains, hillsides, prairies, open woodlands, shaded ravines, and roadsides up to 7,500'.

Hydrologic Regime: Dry to adaptable  
 USDA Zone: 2-6  
 Mature Height: 30 - 42"  
 Aerial Spread: 24 - 48"

## *Amorpha fruticosa*

### Leadplant

**CHARACTERISTICS:** A multi-stemmed, climbing shrub native to the U.S. A good soil stabilizer that will tolerate drought, but less so than *A. Canescens*. A nitrogen fixer. Provides cover for small mammals and upland birds.

**COMMUNITY:** A Great Plains native shrub species found along intermittent streams from 3,500' to 6,000'. A rapid spreader that is considered invasive in some areas.

Wetland Indicator: OBL/FACW  
 Hydrologic Regime: Irregular Flood.  
 USDA Zone: 4-9  
 Mature Height: 5'  
 Aerial Spread: 8'

## *Aronia melanocarpa*

### Black Chokecherry

**CHARACTERISTICS:** A multistemmed, suckering, deciduous shrub. Produces small white flowers in the spring and dark purple fruit that persist from September through December. Birds will eat the fruit, but only after more desirable species are gone. Dark green glossy leaves turn orange, burgundy and purple in the fall.

**COMMUNITY:** Adaptable to many conditions. Not native to the Rocky Mountain region, but good for use in landscaping because it is pollution, drought, insect and disease resistant. Can be used for naturalistic landscape plantings or for bank stabilization and erosion control. Tolerance for soil compaction and salt make it ideal for planting along roadsides and parking lots. Forms large colonies and spreads.

Hydrologic Regime: Adaptable  
 USDA Zone: 3-8  
 Mature Height: 3' - 6'  
 Aerial Spread: 3' - 6'

## *Artemisia frigida*

### Fringed/Pasture Sagebrush

**CHARACTERISTICS:** Low upland shrub with silvery, aromatic foliage. A drought tolerant species; a good plant for rock gardens, with yellow flowers on spikes in the late summer. Can be the preferred forage for some ungulates. Provides some cover for smaller birds and mammals. Its rapid growth and wide distribution make it useful for rehabilitation. The deep and extensive root system provides soil stabilization and erosion control.

**COMMUNITY:** Widely distributed and occurs on dry open sites in foothills, mountains, and plains. It is a common constituent of a number of grassland, shrubland and drier coniferous habitat types. Tolerant of drought and salt and can grow well on a variety

of sites.  
 Hydrologic Regime: Xeric  
 USDA Zone: 2  
 Mature Height: up to 2'  
 Aerial Spread: 8 - 12"



## *Artemisia tridentata*

### Big Sagebrush

**CHARACTERISTICS:** An erect evergreen shrub with silvery foliage that produces yellow flowers in the fall and an aromatic fragrance. Unpalatable to most wildlife except sage grouse, antelope and mule deer who will eat it during winter months. Provides good cover. It grows rapidly and spreads readily from seed.

**COMMUNITY:** Found on deep, fertile well-drained soil in valley bottoms or lower foothill areas. Common on the Colorado Western Slope from 5,500' to 8,000'. Intolerant of alkaline conditions.

Hydrologic Regime: Xeric  
 USDA Zone: 3-6  
 Mature Height: 3'-12'  
 Aerial Spread: 3'-6'

## *Atriplex canescens*

### Four-wing Saltbush

**CHARACTERISTICS:** An erect, warm-season, freely branching evergreen shrub. There is great variation among the population. The foliage is grey-green and scruffy. It has a deep and extensive root system, making it good for erosion control on dry sites. It is also tolerant of alkaline or saline soils. It is fast growing. Valuable as browse for wildlife and for revegetating saline and disturbed sites.

**COMMUNITY:** Saltbush is well adapted to a wide range of temperature and soil conditions. It is found on sand dunes, in gravelly washes, on mesas, ridges, alluvial plains and slopes. It is common on deep, well-drained sandy and often alkaline soils, but also grows well on heavy clay.

Hydrologic Regime: Xeric  
 USDA Zone: -  
 Mature Height: 3' - 6'  
 Aerial Spread: 4' - 8'

## *Betula nana (B. glandulosa)*

### Bog Birch/Dwarf Birch

**CHARACTERISTICS:** A low deciduous shrub. The leaves turn bright red in September. It is browsed by many big game species and the buds and catkins are eaten by birds. It provides cover for small animals.

**COMMUNITY:** Bog birch is typically a wetland species occurring in fens, swamps, bogs, moist to wet tundra, wet meadows and along low gradient streams and lakes. Found 7,500' to 11,400'. It has a moderate shade tolerance.

Wetland Indicator: FAC/OBL  
 Hydrologic Regime: Saturated  
 USDA Zone: 2-4  
 Mature Height: 3' - 6'  
 Aerial Spread: 4'

## *Betula occidentalis (B. fontinalis)*

### Water Birch

**CHARACTERISTICS:** A multi-stemmed, tall shrub or small tree with a clumping habit. Dark green leaves turn yellow in the fall. It is well adapted for revegetating disturbed riparian sites. Offers cover to upland birds and big game. Primarily reproduces through wind blown dispersal of seed. Water birch is only lightly browsed by big game, but the catkins and buds are consumed by numerous bird species. The dense thickets provide excellent thermal and hiding cover for many wildlife species. Water birch contributes structural diversity which is an important habitat requirement for many avian species.

**COMMUNITY:** Occurs almost exclusively along streams, springs or other water courses. 5,000' to 9,000'. Often found with alder. It is very flood tolerant.

Wetland Indicator: FACW  
 Hydrologic Regime: Seas. Flood  
 USDA Zone: 3-5  
 Mature Height: 30'  
 Aerial Spread: 20'

## *Celtis laevigata var. reticulata*

### Net-leaf Hackberry

**CHARACTERISTICS:** A slow-growing, long-lived small to medium-sized spreading, deciduous tree with an appearance similar to Gamble Oak. It is used extensively for food and cover by many bird and mammal species. Can be used for soil stabilization on various types of disturbed sites. It is also well suited for landscaping in natural areas. This small shade tree is tolerant of dry conditions.

**COMMUNITY:** Commonly grows in bottomlands, washes, ravines, arroyos, rocky canyons, and along stream courses and ponds. Occurs from 4,000' to 7,200'. Drought tolerant.

Hydrologic Regime: Mesic to Xeric  
 USDA Zone: 6  
 Mature Height: 7' - 20'  
 Aerial Spread: 10' - 20'

# Woody Species

## *Cercocarpus ledifolius*

### Curl-leaf Mountain Mahogany

**CHARACTERISTICS:** A multi-stemmed, evergreen, shrub or small tree that can be extremely long-lived. Tolerant to heat and drought and can be used for water-efficient landscaping. Younger stands provide good forage for all classes of browsing animals in summer and winter. Mature stands provide excellent cover for large mammals. It is a common species on the Colorado Western slope.

**COMMUNITY:** Native to the Western U.S. A mid-elevational species that usually occurs in isolated, pure patches that are often very dense. Occurs from 6,500' - 9,000'.

Hydrologic Regime: Mesic to Xeric  
 USDA Zone: 3  
 Mature Height: 30-42"  
 Aerial Spread: 5-12'

## *Cercocarpus montanus*

### Mountain Mahogany

**CHARACTERISTICS:** Slow growing, multi-stemmed, evergreen shrub or small tree. Good upland bird habitat and large mammal browse for all species. This species' ability to survive on harsh sites makes a useful candidate for erosion control of arid mountain slopes. Can be used to improve ranges or rehabilitate mountain shrub and pinyon-juniper communities. Often used in xeriscaping.

**COMMUNITY:** Occurs on rocky hillsides, open rocky woods, or stoney soil throughout the Rocky Mountain region and Great Plains from 4,000' to 8,500'. In mountain-shrub communities, it is commonly associated with other mountain mahogany, scrub oak, bigtooth maple, antelope bitterbrush, mountain big sagebrush, juniper and pinyon.

Hydrologic Regime: Xeric  
 USDA Zone: 4-7  
 Mature Height: 5'-6'  
 Aerial Spread: 3'-5'

## *Cornus sericea (C. stolonifera, Svida stolonifera)*

### Red-Osier Dogwood

**CHARACTERISTICS:** A deciduous, many-stemmed shrub with very bright red stems. It bears white flowers in the spring which are followed by white or lead colored berry-like fruit. A good warm and cold weather food supply for big game, small mammals and upland birds. Dense thickets provide valuable cover for smaller animals. It is recommended for rehabilitating moist sites. It is well adapted to disturbed sites, excellent at stabilizing soil, easy to establish and grows rapidly. Popular in landscaping.

**COMMUNITY:** Forms thickets in wet meadows and along streams in the mountains from 3,000' to 11,500'. Usually understory to cottonwoods, conifers or alders. It tolerates partial shade and flooding.

Wetland Indicator: FACW  
 Hydrologic Regime: Moist to Sat.  
 USDA Zone: 2-7  
 Mature Height: 10'  
 Aerial Spread: 10'

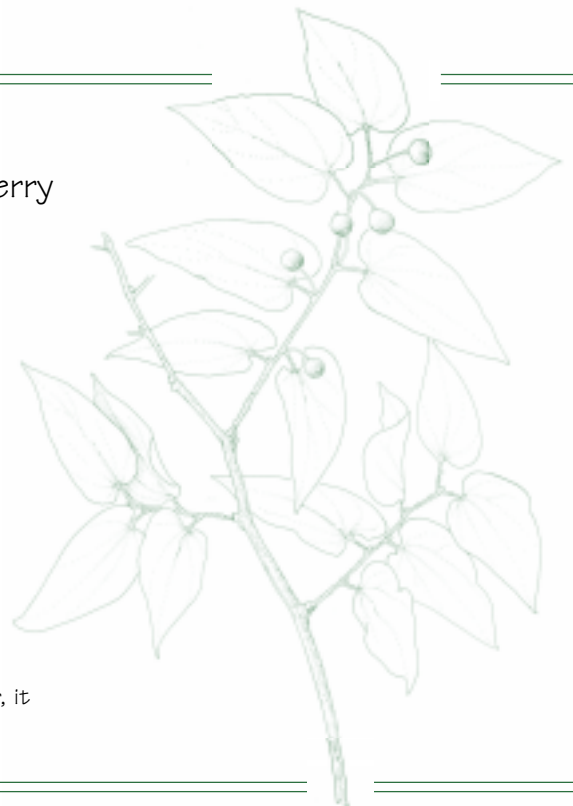
## SPECIES PROFILE:

### *Celtis laevigata var. reticulata*, Net-leaf Hackberry

*Celtis reticulata* may not be the prettiest tree at our nursery, but it can't be beat when it comes to creating wildlife habitat or stabilizing erosive slopes. This hackberry has a spreading crown and a short, crooked trunk. It's a slow-grower and can live for up to 200 years! Net-leaf hackberry typically grows along washes, in ravines, bottomlands, in rocky canyons and along stream courses. It grows well in the sun and is drought tolerant.

It is used extensively for food and cover by many birds and animals. The small fruits which can range from orange to reddish-purple to black are readily consumed by many birds. It is one of the most important winter bird foods. Big games species find good cover and highly valued summertime shade in hackberry groves and birds can be found nesting in its branches.

The shade value of net-leaf hackberry was appreciated by early Native American peoples. Because of its tendency to grow near flowing water, it provided the focus for early villages.



## *Cornus sericea* var. *Flaviramea*

## Yellow-Twig Dogwood

**CHARACTERISTICS:** A multi-stemmed hardy shrub with distinct yellow stems, white flowers and fruit in the summer. Great for adding color to winter landscaping, especially when planted with *C. sericea*.

Hydrologic Regime: Moist to Sat.  
 USDA Zone: 1-6  
 Mature Height: 6' - 8'  
 Aerial Spread: 6' - 8'

**COMMUNITY:** It thrives in cold regions and is good for planting in wet areas. Hardy to 9,000'.

## *Crataegus phaenopyrum*

## Washington Hawthorne

**CHARACTERISTICS:** A cultivated ornamental deciduous shrub to small tree with crown gently rounded and wide spreading. Produces clusters of white flowers in June that become bright red fruits in the summer. These fruits are eaten by songbirds in the fall and winter. Exhibits vibrant fall color and 2" thorns. Grows rapidly in its youth, but the growth rate slows as it ages.

Hydrologic Regime: M  
 USDA Zone: 4-8  
 Mature Height: 20' - 35'  
 Aerial Spread: 20' - 25'

**COMMUNITY:** Although they are not native to the western U.S., Hawthornes are good landscaping candidates because they are tolerant of urban conditions and can grow well in many soils. It is especially appropriate for Rocky Mountain conditions because it is tolerant of drought, wind and heat.

## *Dasiphora fruticosa* (*Pentaphylloides floribunda*, *Potentilla fruticosa*)

## Shrubby Cinquefoil

**CHARACTERISTICS:** Small, rounded shrub with rich green leaves and golden-yellow blossoms from June to September. Its abundance causes it to be browsed by wildlife although its palatability is low. Because it is highly adaptable and grows quickly, it is a good candidate for reclamation projects. It is also widely planted as an ornamental.

Hydrologic Regime: Dry to Moist  
 USDA Zone: 2-6  
 Mature Height: 1'-3'  
 Aerial Spread: 1'-3'

**COMMUNITY:** Occurs at elevations up to 12,000'; Found along the margins of wetlands and streams, as well as dry gravelly areas, tallus, open mountain meadows, floodplains, boggy thickets, wet savannas, sedge meadows and along streambanks. Fairly shade intolerant.

## *Ericameria nauseosus* (*Chrysothamnus nauseosus*)

## Rubber Rabbitbrush

**CHARACTERISTICS:** Drought tolerant shrub with thin, narrow leaves which range in color; yellow flowers in late summer. Moderately palatable to wildlife; provides cover to birds and small mammals. Has deep root system which can establish rapidly even on disturbed sites which makes it an excellent candidate for erosion control and reclamation. The plants produce a large amount of leaf litter which acts as a soil mulch and adds nutrients. Also good for use in water-wise landscaping.

Hydrologic Regime: Xeric  
 USDA Zone: 3-6  
 Mature Height: 2'-7'  
 Aerial Spread: 2'-5"

**COMMUNITY:** Occurs on dry hills and variety of other sites from 2,000' to 10,000'. It vigorously invades disturbed sites such as road cuts, overgrazed or burned areas.

## *Fraxinus pennsylvanica*

## Green Ash

**CHARACTERISTICS:** A very hardy, medium to large tree with a large trunk and high branches. Excellent for dense shade. A cultivated ornamental throughout its range; it is generally used for landscaping. Provides cover for large and small mammals and browse for deer.

Wetland Indicator: FACW  
 Hydrologic Regime: Moist  
 USDA Zone: 3-9  
 Mature Height: 50'-60'  
 Aerial Spread: -

**COMMUNITY:** The most widely distributed of all the American ashes. This flood tolerant species is most commonly found on alluvial soils along rivers. Often associated with box elder. Can survive on a wide variety of sites, but does best on moist sites. Occurs at lower elevations: 2,000' - 5,700'.

# Woody Species

## *Juniperus communis*

### Common Juniper

**CHARACTERISTICS:** A native evergreen shrub. Most often grows as a low, mat-forming shrub. It is useful for preventing erosion and is valued as an ornamental. The cones are eaten by many species of birds and mammals.

**COMMUNITY:** Can grow on a wide range of sites, including dry, open, rocky, wooded hillsides, sand terraces and exposed slopes from 4,500' to 11,300'. It is shade intolerant and often regarded as a colonizing plant. It grows as an understory with ponderosa pine, Douglas-fir, lodgepole pine, white fir, Engelman spruce and quaking aspen. Other associates include common snowberry, gooseberry currant, Oregon grape, Thurber fescue and bottlebrush squirreltail.

Hydrologic Regime: Mesic to Xeric  
USDA Zone: all  
Mature Height: 2' - 3'  
Aerial Spread: 7' - 13'

## *Juniperus scopulorum*

### Rocky Mountain Juniper

**CHARACTERISTICS:** A long-lived erect shrub or small tree with blue-green scale like leaves and a conical crown shape. Produces small berry-like fruit that is blue with a white, waxy bloom. Cultivated largely as an ornamental. Reproduces through seed. The berries are readily consumed by birds and small mammals, and it is used to some extent by wild ungulates.

**COMMUNITY:** Widely distributed throughout much of the Pacific Northwest, Rocky Mountains, Great Basin, and Northern Plains. Occurs most commonly in open woodlands or with sagebrush and grasses from 2,000' to 10,000'. Can occur on a wide range of sites that vary significantly in soils, elevation, and climatic factors.

Hydrologic Regime: Mesic to Xeric  
USDA Zone: all  
Mature Height: 20' - 50'  
Aerial Spread: 8' - 12'

## *Lonicera involucrata*

### Twinberry

**CHARACTERISTICS:** A medium sized shrub that will tolerate drier conditions once established. Suckers freely and forms thickets. Produces pale yellow tubular flowers in the spring that turn to shiny black twin berries. Provides cover for small mammals as well as food for upland birds.

**COMMUNITY:** Found along streams from 7,000' to 11,500'. Best landscape use is in masses on high-elevation riparian sites.

Wetland Indicator: FAC  
Hydrologic Regime: Moist  
USDA Zone: 2-4  
Mature Height: 5'  
Aerial Spread: 5'

## *Mahonia aquifolium*

### Oregon Grape

**CHARACTERISTICS:** An upright, broadleaf, evergreen shrub with coarse, shiny, bluish-green leaves that resemble holly. It produces bright yellow flowers in the spring and edible blue-black fruit that is attractive to birds.

**COMMUNITY:** Native to the Pacific Northwest. A good option for dry shade.

Hydrologic Regime: Moist/ adaptable  
USDA Zone: 4 - 6  
Mature Height: 4' - 6'  
Aerial Spread: 4' - 6'

## *Mahonia repens*

### Creeping Oregon Grape/Creeping Mahonia

**CHARACTERISTICS:** A prostrate, slow-growing, broadleaf evergreen low shrub/ground cover with yellow flowers and blue berries. Excellent for groundcover and erosion control. Fruits are eaten by a number of bird and mammal species, and it is browsed by deer and elk. Often used in xeriscaping and landscaping. Preserves, drinks and pies are made from the berries.

**COMMUNITY:** Common on thinly wooded slopes or shaded hillsides in rocky, slightly moist soil from sea level to 10,000'. Reproduces through seed and rhizomes.

Hydrologic Regime: Xeric  
USDA Zone: 4  
Mature Height: 12" - 18"  
Aerial Spread: 12" - 18"



## *Parthenocissus quinquefolia*

### Virginia Creeper

**CHARACTERISTICS:** Virginia Creeper is a fast-growing, woody, deciduous vine that climbs by tendrils to a height of 60 ft. It bears green flowers in June and July and dark purple fruit Aug. - Oct. It sprouts from horizontal above ground stems. It is cultivated as an ornamental because of its attractive foliage. Songbirds are the principal consumers of the fruit, but deer, other small animals also enjoy it.

**COMMUNITY:** Grows over a wide geographic range. Prefers moist soils but will tolerate a wide variety of soil types. Can be used for watershed protection and erosion control. Should be controlled when it competes with desired pines and hardwoods. Can be overly aggressive and invasive in some areas.

Hydrologic Regime	Adaptable
USDA Zone:	4-9
Mature Height:	vine
Aerial Spread:	vine

## *Holodiscus dumosa*

### Brush Oceanspray, Mountain Spray

**CHARACTERISTICS:** A moderately long-lived native, deciduous, drought tolerant shrub. Generally unpalatable to wildlife and provides little habitat. However, it does comprise a portion of the summer diet of bighorn sheep and is utilized by small birds. Appears to be an excellent candidate for use in the reclamation of disturbed sites within its range

**COMMUNITY:** Characteristically found in large clumps on steep talus slopes from 5,500' - 10,000', sometimes with Thurber fescue and wax current. Adapted to sites with unstable, shifting surface materials

Hydrologic Regime:	Mesic to Xeric
USDA Zone:	3-5
Mature Height:	20" - 60"
Aerial Spread:	3' - 6'

## *Physocarpus monogynus*

### Mountain Ninebark

**CHARACTERISTICS:** Low, many-branched shrub with a round crown, maple-like leaves, brown shreddy bark and fruit that provide landscape interest in the winter. Bears white flowers in early summer. Bark is grey and shreddy. Fall foliage turns orange and red.

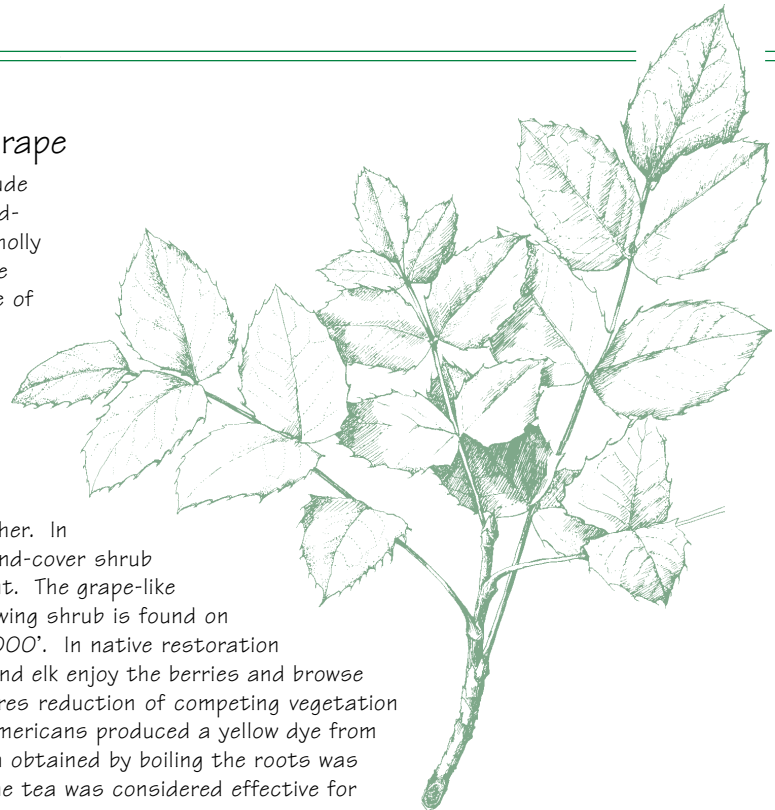
**COMMUNITY:** Found from 6,000' - 10,000' in dry and open woods, on rocky hillsides and exposed slopes.

Hydrologic Regime:	Adaptable
USDA Zone:	2 - 7
Mature Height:	2' - 4'
Aerial Spread:	2' - 4'

## SPECIES PROFILE:

### *Mahonia repens*, Creeping Oregon Grape

**C**reeping Mahonia and its relatives, which include some of the most cold resistant of the broad-leaved evergreens, have leaves that look like holly leaves and fruit that looks like grapes, but they are related to neither. In landscaping, Mahonia is one of those less common plants that provides year-round interest. In the spring, it bears short clusters of bright yellow flowers at the tops of its stems. The flowers are followed by bluish black, edible, berries, which can be made into a tart but tasty jelly. Its feather-shaped leaves, composed of tough, leathery, spiny-edged leaflets, turn an attractive bronze or burgundy in cold weather. In landscaping, *Mahonia repens* is an attractive ground-cover shrub for borders or beds. It is heat and drought tolerant. The grape-like fruits will feed birds all summer long. This low growing shrub is found on thinly wooded slopes or shaded hillsides up to 10,000'. In native restoration projects, wildlife including birds, black bears, deer and elk enjoy the berries and browse the leaves. Successful stand establishment requires reduction of competing vegetation before and during establishment. Navajo Native Americans produced a yellow dye from the roots and a lavender dye from the fruit. A tea obtained by boiling the roots was used for thickening blood and curing dysentery. The tea was considered effective for curing coughs, kidney problems and venereal diseases.



# Woody Species

## *Physocarpus opulifolius*

### Common Ninebark

**CHARACTERISTICS:** Small to medium spirea-like shrub. Useful for screen or mass planting. Bears white to pink flowers in flat topped clusters in early summer. Bark peels in long papery strips.  
**COMMUNITY:** Found from 4,000' to 7,000' on moist, rocky or sandy streambanks. Common Ninebark can tolerate drier places and alkaline soil, full sun or partial shade.

**Wetland Indicator:** FAC/FACU  
**Hydrologic Regime:** Moist/Adaptable  
**USDA Zone:** 2 - 4  
**Mature Height:** up to 9'  
**Aerial Spread:** to 10'

## *Pinus ponderosa*

### Ponderosa Pine

**CHARACTERISTICS:** Tall, long-lived evergreen conifer; common throughout N. America. Reproduces only from seed. Many species of birds and small mammals eat the seeds and deer moderately browse the needles. Provides nesting habitat for many birds. Used for reforestation, landscaping, and watershed protection.

**COMMUNITY:** Found in well drained forest soils from 3,500' to 9,000'.

**Hydrologic Regime:** Xeric  
**USDA Zone:** 3-6  
**Mature Height:** 75'-150'  
**Aerial Spread:** 50'

## *Populus x acuminata*

### Lance-leaf Cottonwood

**CHARACTERISTICS:** A sterile (non-cotton producing) hybrid cross of *Populus deltoides* and *Populus angustifolia*. Non-native but naturalized in some areas. Provides cover to upland birds and big game.

**COMMUNITY:** Does well at elevations between 3,000' and 9,000'.

**Wetland Indicator:** FAC/FAC+  
**Hydrologic Regime:** Seas. Flood.  
**USDA Zone:** 4-6  
**Mature Height:** 50'  
**Aerial Spread:** 35'

## *Populus angustifolia*

### Narrow-leaf Cottonwood

**CHARACTERISTICS:** A large, fast growing tree; great species for providing shade and stabilization along streams. Best adapted to medium and coarse textured soils. Cover for big game as well as upland birds.

**COMMUNITY:** Occurs along mountain streams and rivers from 5,000' to 9,500'.

**Wetland Indicator:** FACW/FAC  
**Hydrologic Regime:** Seas. Flood.  
**USDA Zone:** 3-6  
**Mature Height:** 50'  
**Aerial Spread:** 35'

## *Populus deltoides (P. sargentii)*

### Plains or Broad-leaf Cottonwood

**CHARACTERISTICS:** Reaches a mature height of 80' with an aerial spread of 50'. Very useful for shade. Tree offers cover for big game and the catkins are a food source for birds.

**COMMUNITY:** Typical cottonwood species found along stream and rivers from 3,500' to 6,000'.

**Wetland Indicator:** FAC/FACW  
**Hydrologic Regime:** Seas. Flood.  
**USDA Zone:** 3-9  
**Mature Height:** 80'  
**Aerial Spread:** 50'



## *Populus tremuloides*

### Quaking Aspen

**CHARACTERISTICS:** Has heart shaped leaves and silvery-white bark; bright yellow color in the fall. Trees offer cover and browse for big game and the catkins are a food source for birds.

**COMMUNITY:** Found at elevations up to 10,000'.

Wetland Indicator	FAC
Hydrologic Regime:	Dry to Moist
USDA Zone:	1-7
Mature Height:	40'
Aerial Spread:	20'

## *Prunus americana*

### American or Wild Plum

**CHARACTERISTICS:** A large shrub or small tree; very cold hardy and drought tolerant; fragrant white flowers provide tasty fruit. An excellent wildlife species.

**COMMUNITY:** Occurs throughout the U.S. along riparian areas from 3,000' to 6,000'.

Wetland Indicator:	UPL/FACU
Hydrologic Regime:	Dry to Moist
USDA Zone:	3-8
Mature Height:	12'
Aerial Spread:	10'

## *Prunus besseyi*

### Western Sand Cherry

**CHARACTERISTICS:** Round multi-stemmed shrub with grayish green oval leaves. Single white flowers in late spring followed by purple-black fruit. Subtle fall color and a delicate appearance.

**COMMUNITY:** Found at elevations up to 9,000'; adaptable to dry conditions.

Wetland Indicator:	UPL/FACU
Hydrologic Regime:	Dry to Moist
USDA Zone:	2-6
Mature Height:	4'-6'
Aerial Spread:	4'-6'

## *Prunus x cistena*

### Purple-leaf Sand Cherry

**CHARACTERISTICS:** A very hardy ornamental shrub with white to pinkish flowers and purple-red foliage and blackish purple fruit.

**COMMUNITY:** Hardy to 8,500'. Requires well-drained soil and does best in full sun. It will tolerate shade, but the foliage color becomes less intense.

Hydrologic Regime:	Adaptable
USDA Zone:	3-7
Mature Height:	6'-8'
Aerial Spread:	4'-6'

## *Prunus tomentosa*

### Nanking Cherry

**CHARACTERISTICS:** A small, upright shrub with white to pink blossoms that appear in late April or May. The cherries are larger and sweeter than chokecherries, and are excellent for making jellies and wine. The fruit is relished by birds and other wildlife and the twigs are eaten by deer and rabbits.

**COMMUNITY:** Hardy to 9,000'. A good candidate for water-wise landscaping because it is fairly drought tolerant and does best in full sun.

Hydrologic Regime:	Adaptable
USDA Zone:	2-7
Mature Height:	6'-10'
Aerial Spread:	6'-12'

# Woody Species

## *Prunus virginiana* Chokecherry

**CHARACTERISTICS:** A thicket forming shrub/tree with numerous stems. It is tolerant to drought and acidity. Produces attractive clusters of white flowers in the spring and reddish-black fruits by autumn. It is browsed year round by deer and elk and provides cover for many species. Widely used as ornamentals.

**COMMUNITY:** Most often associated with cool, moist foothill, mountain or canyon habitats throughout much of the semiarid West. Grows preferentially along streams, springs and seeps, but is intolerant of poor drainage or prolonged flooding. Can be found at elevations 4,500' to 9,000'.

Wetland Indicator: FACU  
Hydrologic Regime: Seas. Moist  
USDA Zone: 3-5  
Mature Height: 25'  
Aerial Spread: 20'

## *Prunus virginiana* 'Schubert' Schubert Chokecherry

**CHARACTERISTICS:** Leaves emerge as bright green in the spring and turn to deep reddish purple as they harden. Can be cultivated as a small tree or multi-stemmed shrub. Fruits are edible and are relished by birds. Forms many suckers.

**COMMUNITY:** Requires well-drained soils.

Hydrologic Regime: Adaptable  
USDA Zone: 2-6  
Mature Height: 15'-20'  
Aerial Spread: 10'-15'

## *Quercus gambelii* Gambel Oak

**CHARACTERISTICS:** A thicket forming shrub/tree. Although it is not highly palatable, its availability and abundance make it a valuable wildlife plant. The foliage is browsed and the acorns are eaten by birds and small mammals. Gambel oak thickets provide hiding and resting sites for deer and nesting habitat for birds. The extensive root system helps reduce erosion.

**COMMUNITY:** Widely distributed throughout the southern and central Rocky Mountains. Grows at the edge of the plains, in valleys, along canyon walls, on dry hillsides and foothills up to 10,200'.

Hydrologic Regime: Xeric  
USDA Zone: 4-6  
Mature Height: 3' - 20'  
Aerial Spread: 15'

## *Rhus aromatica canadensis* Fragrant Sumac

**CHARACTERISTICS:** Fragrant sumac is so named because it releases a fragrant odor when bruised. It produces yellow flowers and small red fruits. The foliage turns yellow to red in the fall. The fruits are eaten by many small birds and mammals. It has been used for the rehabilitation of disturbed sites as well as an ornamental.

**COMMUNITY:** It grows on a variety of sites including open rocky woodlands, valley bottoms, and lower rocky slopes. Roots readily in poor, dry soils. Commonly associated with blue grama, cheatgrass, Arizona fescue, and eastern redcedar.

Hydrologic Regime: Dry to adaptable  
USDA Zone: 3-9  
Mature Height: 6'-12'  
Aerial Spread: 12'-20'

## *Rhus glabra* Smooth Sumac

**CHARACTERISTICS:** A large shrub or small tree that readily reproduces vegetatively to form colonies/thickets. Bears fuzzy red fruit and scarlet orange and purple foliage in the fall. A good fall and winter food source for small birds and mammals (browse and fruit). The dense thickets also provide good cover. Useful for controlling soil erosion and for roadside planting. Often used in landscaping because of the brilliant fall color. Can be very aggressive and invasive.

**COMMUNITY:** Widely distributed throughout the U.S. in a wide range of habitats including open woodlands, prairies, dry rocky hillsides, and along streams. Found at elevations from 2,700' - 7,500'.

Hydrologic Regime: Variable  
USDA Zone: 3-9  
Mature Height: 2' - 20'  
Aerial Spread: 8' - 10'



## *Rhus trilobata* (*Rhus aromatica* ssp. *trilobata*)

### Oakleaf Sumac, Skunkbush

**CHARACTERISTICS:** Drought tolerant sumac with lobed leaves and yellow flowers in the spring which turn to sticky red berries. A good four season food source for small birds and mammals. The dense thickets it forms provide good cover, hiding and nesting sites. It is used as an ornamental and can be good for planting in disturbed areas or for erosion control due to long, branching roots. Striking red fall foliage.

**COMMUNITY:** Found at elevations up to 9,000' in well drained soils on dry rocky slopes, along streams and canyon bottoms, waste places, pasture roadsides and on sand dunes. Grows well on depleted soils.

Hydrologic Regime: Dry  
 USDA Zone: 3-6  
 Mature Height: 2' - 8'  
 Aerial Spread: 3'-6'

## *Rhus hirta* (*R. typhina*)

### Staghorn Sumac

**CHARACTERISTICS:** A deciduous, tall shrub or small tree that can grow to be 40'. Native to eastern U.S. and Canada. Each leaf is composed of 9 - 29 leaflets. The fruits are drupes covered with long red hairs, in dense cone shaped clusters. Staghorn Sumac is consumed as browse and for its berries by deer, moose, rabbits, songbirds and upland game birds. Planted as an ornamental, especially in xeriscaping. Excellent fall color. Can be very aggressive and invasive.

**COMMUNITY:** Occurs in dry, rocky or gravelly soils in old fields, clearings, roadsides, forest edges and open woods. Tolerant of poor dry soils. Forms large dense colonies via root sprouts. Not tolerant of shade.

Hydrologic Regime: Dry  
 USDA Zone: 4-8  
 Mature Height: 30' - 35'  
 Aerial Spread: 10' - 15'

## *Ribes aureum*

### Golden Currant

**CHARACTERISTICS:** A small deciduous, rhizomatous shrub. Tolerant of drier conditions. Produces fragrant, yellow flowers in spring and berries in summer. Berries are eaten by songbirds and small mammals. Cultivated as an ornamental and can be used to revegetate roadsides and disturbed areas.

**COMMUNITY:** Has wide ecological amplitude. Commonly occurs along streams, on floodplains, and in ravines and washes and on mountains slopes up to 8,000'.

Wetland Indicator: FACW  
 Hydrologic Regime: Seas. Sat.  
 USDA Zone: 4-6  
 Mature Height: 3.5' - 10"  
 Aerial Spread: 5'

## *Ribes cereum*

### Wax Current

**CHARACTERISTICS:** Deciduous, nonrhizomatous, rounded shrub with grayish-green waxy leaves. Produces red berries in late summer which are enjoyed by songbirds. Provides some cover for smaller mammals and birds. Reproduces mainly from seed. It is cultivated as an ornamental.

**COMMUNITY:** Commonly occurs on dry, open slopes, ridges and rock outcrops, in open coniferous forests at forest edges and in mountain shrub communities. Commonly associated with sugar pine, Washoe pine, Rocky Mountain maple, rabbitbrush, ninebark, skunkbrush sumac and snowberry. Found at elevations from 4,950' to 13,200'. Grows in a variety of substrates. Shade intolerant.

Hydrologic Regime: Xeric  
 USDA Zone: 3-6  
 Mature Height: 2' - 5'  
 Aerial Spread: 4'-6'

## *Rosa rugosa*

### Rugosa Rose

**CHARACTERISTICS:** Extremely hardy, vigorous shrub rose. Flowers are deep pink to white and fragrant. The fruit is large and bright red.

**COMMUNITY:** A good plant for landscaping in the Rocky Mountain region because it tolerates hard freezes, wind and dryness. Hardy to 9,000'. Prefers light well-drained soil but succeeds in most soils including dry ones.

Hydrologic Regime: Adaptable  
 USDA Zone: 2-7  
 Mature Height: 4'-6'  
 Aerial Spread: 4'-5'

# Woody Species

## *Rosa woodsii*

### Wood's Rose

**CHARACTERISTICS:** Fast-growing, long-lived rhizomatous shrub. Produces beautiful red/pink flowers. Leaves and twigs are browsed by big game from spring to fall and rose hips are consumed during winter months. Dense thickets provide nesting and hiding habitat for songbirds and small mammals. Extensive rhizomes and good survivalability and revegetation characteristics even on harsh sites makes this species an effective tool in erosion control.

**COMMUNITY:** Occurs on bluffs, dry grassy slopes, and on sandhills throughout the prairies. Also found along streams and on disturbed sites from 3,000' to 11,500'. Prefers moist sites. Associated with western snowberry, chokecherry and hawthorn.

Wetland Indicator: FACU/FAC-  
Hydrologic Regime: Seas. Moist.  
USDA Zone: 2-6  
Mature Height: 2' - 6'  
Aerial Spread: 4'

## *Rubus parviflorus*

### Thimbleberry

**CHARACTERISTICS:** A strongly rhizomatous thicket forming shrub with fragrant white flowers and colorful fall foliage. Used selectively by ungulates for browse, varies seasonally and geographically. Fruits are consumed by songbirds and large and small mammals. Dense thickets provide good songbird nesting habitat and cover for deer and small mammals.

**COMMUNITY:** Commonly grows on open, wooded hillsides, in subalpine meadows, along streambanks and canyons, and on dry exposed sites at higher elevations. It is particularly common on cool moist sites. Tolerates varying soil conditions, but prefers deep, well-drained loam.

Wetland Indicator: FAC  
Hydrologic Regime: Seas. Moist  
USDA Zone:  
Mature Height: 2' - 8'  
Aerial Spread: 3' - 5'

## *Salix amygdaloides*

### Peach-leaf Willow

**CHARACTERISTICS:** A very common, willow tree. A rapidly growing, short-lived species that is excellent for streambank stabilization. Reproduces primarily through seed dispersal. Offers preferred browse for moose and beaver and cover for numerous species.

**COMMUNITY:** Found along streams, pond and lake borders, moist ravines and ditches, oxbows, roadside gullies and prairie sloughs. It is shade intolerant and requires canopy openings to survive. Tolerant of many soil types, but most commonly found on sandy or silty alluvium. Occurs up to 9,500'.

Wetland Indicator: FACW  
Hydrologic Regime: Seas. Flood.  
USDA Zone: 4-6  
Mature Height: 20' - 40"  
Aerial Spread: 40'

## *Salix bebbiana*

### Bebb's Willow

**CHARACTERISTICS:** A large shrub or small multi-stemmed tree with a bushy top. It is a major source of browse for moose, elk and deer and provides cover for many songbirds and mammals and benefits fish habitat by shading water. A relatively good soil stabilizer; valuable for revegetating streambanks and other disturbed sites.

**COMMUNITY:** Commonly found in riparian communities. Adapted to a wide variety of soil types and can tolerate some flooding. It is shade intolerant and grows best in full sun. Occurs at elevations from 3,000' to 9,600'.

Wetland Indicator: FACW  
Hydrologic Regime: Moist to Sat.  
USDA Zone:  
Mature Height: 30'  
Aerial Spread:

## *Salix exigua*

### Coyote or Sandbar Willow

**CHARACTERISTICS:** A very common, short-lived, thicket forming shrub or small tree. It grows and colonizes rapidly, even on disturbed sites, which makes it excellent for streambank stabilization. Reproduces readily through seed dispersal and suckering. A preferred browse for moose which also provides cover for a variety of wildlife.

**COMMUNITY:** Found almost exclusively on riparian sites. It characteristically forms zones immediately adjacent to the water's edge. Shade intolerant. Occurs up to 9,500'.

Wetland Indicator: OBL  
Hydrologic Regime: Irreg. Flood.  
USDA Zone: 3-9  
Mature Height: 3' - 15"  
Aerial Spread: 6'



## *Salix geeyeriana*

### Geyer's/Blue Willow

**CHARACTERISTICS:** A tall shrub with narrow leaves. Smaller branches have a bluish waxy coating. Grows along with *Salix monticola*, but in slightly wetter soils. Good cover for birds, small mammals and big game. Preferred browse for elk and moose and catkins are eaten by birds. Useful for revegetating disturbed riparian areas.

**COMMUNITY:** Found at elevations between 6,000' and 10,000', Grows in wet meadows and marshes, next to seeps and springs and along the borders of low gradient streams and beaver ponds. It is often somewhat removed from a stream's edge in broad open valleys with a constant water supply. Grows in widely spaced clumps.

Wetland Indicator: OBL  
 Hydrologic Regime: Moist  
 USDA Zone: 3-5  
 Mature Height: 15'  
 Aerial Spread: 15'

## *Salix monticola*

### Mountain Willow, Native Golden Willow

**CHARACTERISTICS:** Rounded erect shrub with yellow branches and narrow green leaves; yellowish-green to gray catkins in early spring. Sprouts readily from the root crown or basal stem. Dense thickets provide good thermal and hiding cover for elk, deer, and moose and shade and cover for fish. Also provides browse for big game and the catkins are eaten by birds. Its ability to produce roots and crown shoots provide for quick recovery of disturbed sites. Good streambank stabilizer.

**COMMUNITY:** Found in riparian communities at elevations between 5,200' and 12,000'. Prefers moist, alluvial bottomlands, but can be found on a variety of substrates. Commonly associated with Booth willow, Geyer willow and Drummond willow.

Wetland Indicator: OBL  
 Hydrologic Regime: Moist  
 USDA Zone: 3-5  
 Mature Height: 8'-12"  
 Aerial Spread: 6'-8'

## *Salix planifolia ssp. planifolia*

### Planeleaf Willow

**CHARACTERISTICS:** A high altitude thicket forming shrub willow with shiny dark green leaves. Provides good nesting and foraging habitat for a variety of birds and browse for moose. Primary reproduction is through seed dispersal. Recommended for revegetating disturbed riparian areas.

**COMMUNITY:** Commonly forms thickets along stream and lake margins, in wet meadows, and seep areas and on slopes kept moist by melting snow. Occurs between 4,000' - 13,000'.

Wetland Indicator: OBL  
 Hydrologic Regime: Irreg. Flood  
 USDA Zone: 3-5  
 Mature Height: 8'-12"  
 Aerial Spread: 6'

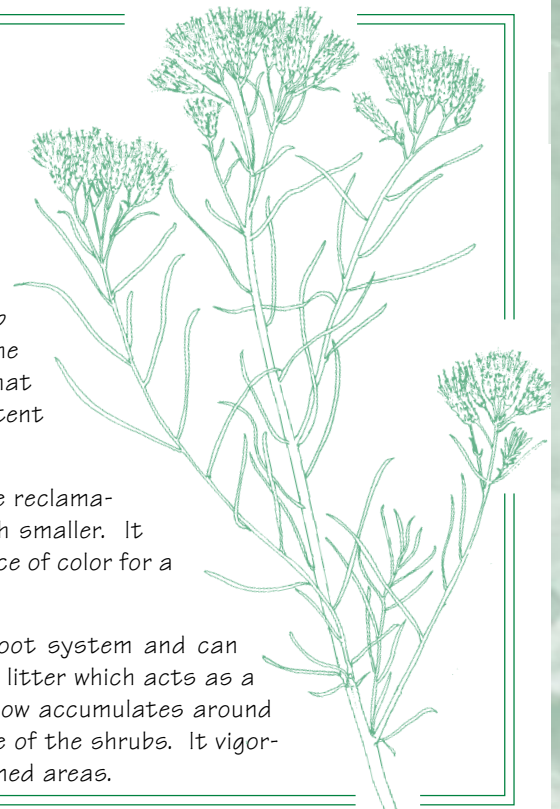
## SPECIES PROFILE:

### *Chrysothamnus nauseosus* (*Ericameria nauseosus*)- Rabbitbrush

The nomenclature for rabbitbrush is quite descriptive and provides a concise snap-shot of this native species. Its scientific name is very literal and is derived from the Greek "chrysos" meaning gold and "thamnos" meaning shrub. "Nauseosus" can be translated to mean ill smelling. So, in strict interpretation, Rabbitbrush is the gold shrub that stinks. The stink may refer to the foul odor that is omitted when the leaves are crushed. "Rubber" in the common name refers to the fact that the plant has been suggested as a source for rubber. In fact, rubber content can be up to 7% dry weight.

*Chrysothamnus* is a pretty addition to both xeric landscaping and native reclamation. The shrub can grow up to seven feet in height but is typically much smaller. It produces clumps of brilliant gold flowers in the summer and is a good source of color for a water wise flower garden.

Rabbitbrush is an excellent plant for erosion control. It has a deep root system and can establish rapidly even on severe sites. It produces a large amount of leaf litter which acts as a mulch and also recycles nutrients into the soil. In the winter, drifting snow accumulates around them and provides added moisture in the spring for species near the base of the shrubs. It vigorously invades disturbed sites such as road cuts, overgrazed range or burned areas.



# Woody Species

## *Sambucus racemosa ssp. pubens (S. microbotryrs)*

### Redberried Elder

**CHARACTERISTICS:** A small to medium deciduous shrub which bears white flowers followed by bright red fruit. Elderberries are devoured by many wildlife species, and it is sometimes browsed by big game. It is also utilized for nesting and cover. This species can be useful for stabilizing soil and controlling erosion on moist sites.

**COMMUNITY:** Found in cooler uplands, swamps, and along cool drainages. Occurs from 3,500' to 11,000'.

Wetland Indicator: FACU  
Hydrologic Regime: M  
USDA Zone: 3-6  
Mature Height: 2' - 20'  
Aerial Spread: 10' - 15'

## *Shepherdia argentea*

### Silver Buffaloberry

**CHARACTERISTICS:** A native, deciduous, thicket forming small tree or large shrub with thorns and silver scurfy on both surfaces of the leaf. Adapts well to disturbed or degraded sites. Good for reclamation and erosion control on streambanks. It is a valuable browse species for deer, pronghorn and grizzly. The berries are eaten by songbirds and small mammals. Also provides cover for a variety of wildlife.

**COMMUNITY:** Found in riparian areas such as wetland meadows, floodplains, terraces, and along streams and ponds. Grows best on moist to semi-wet loamy soils with good drainage, but will grow in semishaded areas and on dry, exposed hillsides. Common to the Colorado Western Slope.

Hydrologic Regime: Moist to Dry  
USDA Zone: 4  
Mature Height: 3.5' - 20'  
Aerial Spread: 10' - 15'

## *Shepherdia canadensis*

### Russet Buffaloberry

**CHARACTERISTICS:** A wide-spread, native, deciduous, nitrogen-fixing shrub that produces yellow flowers from April to June and bright yellow/red fruits. Wildlife, especially bears, use it for its berries more frequently than for browse.

**COMMUNITY:** Generally found on sand, gravelly or rocky soils and is able to thrive on nutrient-poor soils due to its nitrogen fixing ability. A good candidate for revegetating disturbed sites with poor soils. Found from 4,950' to 8,200'. It is associated with old-growth lodgepole pine, Engelmann spruce, and subalpine fir. Not an aggressive species. Shade tolerant.

Hydrologic Regime: Dry to adaptable  
USDA Zone: 3-6  
Mature Height: 3' - 13'  
Aerial Spread: 3' - 6'

## *Symphoricarpos albus*

### Common Snowberry

**CHARACTERISTICS:** A native, deciduous, erect shrub with bluish-green leaves and white to pink flowers in summer followed by white berries. It reproduces primarily by rhizomes. It is an important species for food and cover for quail, pheasant, grouse and partridge. It adapts well to disturbed sites and can be used for rehabilitating riparian areas and mine spoils. The rhizomes help prevent soil erosion.

**COMMUNITY:** Found on a variety of sites from warm, open, sunny grasslands, to cooler, forested areas and woodland thickets. Occurs between 5,000' and 8,000' on moderate to well drained soils.

Wetland Indicator: FACU+  
Hydrologic Regime: Dry to Moist  
USDA Zone: 3-6  
Mature Height: 2' - 4'  
Aerial Spread: 5'

## *Symphoricarpos occidentalis*

### Western Snowberry

**CHARACTERISTICS:** A deciduous, rhizomatous shrub that forms dense colonies by adventitious shoots from widely spreading roots and rhizomes; prefers shaded areas. It is a valuable forage species for deer, elk and pronghorn and the berries are eaten by birds. Dense thickets provide good thermal and hiding habitat for many species. It adapts well to disturbed sites and is used for erosion control and land reclamation.

**COMMUNITY:** Commonly found in riparian areas such as alluvial floodplain terraces, upland ravines, swale-like depressions and along streams and rivers. It is also found in disturbed areas such as pastures and roadsides. Prefers moist soils with good drainage. Occurs between 3,000' to 10,000'.

Hydrologic Regime: Dry to moist  
USDA Zone: 3-6  
Mature Height: 3'  
Aerial Spread: 5'



## *Symphoricarpos orbiculatus*

### Coralberry

**CHARACTERISTICS:** A deciduous shrub native to eastern North America. It is similar to its cousin the snowberry except that it produces persistent bright red fruit which resembles apples in shape. It reproduces vegetatively by sending out runners. The berries are eaten by birds and some wildlife. Forms knee-high thickets which provide excellent nesting and escape cover for small mammals and birds.

**COMMUNITY:** Hardy to 8,500'

Hydrologic Regime: Adaptable  
 USDA Zone: 2  
 Mature Height: 2' -3'  
 Aerial Spread: 3' -6'

## *Syringa villosa*

### Late Lilac

**CHARACTERISTICS:** A very hardy perennial shrub, good for use in water-wise landscaping. Blooms later than other lilacs with fragrant rosy-lilac to white flowers.

**COMMUNITY:** Prefers full sun and well-drained, slightly acidic soil.

Hydrologic Regime: Dry to Adaptable  
 USDA Zone: 3-7  
 Mature Height: 6'-10'  
 Aerial Spread: 4'-10'

## *Syringa vulgaris*

### Common Purple Lilac

**CHARACTERISTICS:** A popular landscaping shrub, which is a good choice for Rocky Mountain landscaping due to its winter-hardiness and tolerance for drier conditions. In fact it will not tolerate poorly drained soils and does not do well in areas without significant wintertime frost. It suckers readily. The lilac hedge is a favorite place for birds because the dense foliage provides good nesting and hiding habitat.

**COMMUNITY:** Hardy to 10,000'

Hydrologic Regime: Dry to Adaptable  
 USDA Zone: 3  
 Mature Height: 10'-20'  
 Aerial Spread: 8'-12'

## *Viburnum lentago*

### Nannyberry

**CHARACTERISTICS:** Large shrub to small tree with a rounded crown. It is very hardy and is especially tolerant of urban air pollution, drought and shade. Has good wildlife value. Non-native to Rocky Mountain Region. Bears fragrant, white flower clusters in late spring, followed by blue-black, berry-like fruits.

**COMMUNITY:** Because of its adaptability, it is often used in landscaping. It is easily transplanted and suckers readily from the base.

Hydrologic Regime: Dry to adaptable  
 USDA Zone: 2-6  
 Mature Height: 8' - 15'  
 Aerial Spread: 6' - 8'

## *Yucca glauca*

### Soapweed Yucca

**CHARACTERISTICS:** Soapweed yucca is a small, perennial shrub. The glaucous green leaves (1'-3') are broad, stiff and sharply pointed. Many wild ungulates utilize yucca to some degree. It is especially important to big horn sheep as a food source in late winter/early spring. Small mammals and birds feed on the fruits and flowers and utilize it for cover. It has low reclamation value.

**COMMUNITY:** Found from 2,500' - 9,500'. Soapweed yucca grows throughout most of the Great Plains. It is a common constituent of many plains grassland, drier forest-grassland and prairie communities. Commonly associated with western wheatgrass, blue gramma, sand bluestem, big bluestem, sideoats gramma and little bluestem, and leadplant.

Hydrologic Regime: Xeric  
 USDA Zone: 4-8  
 Mature Height: 1' -6'  
 Aerial Spread: 3'

# Index of Common Names

## Herbaceous Species

Alkali Bulrush _____	<i>Schoenoplectus maritimus</i>	Redtop _____	<i>Agrostis stolonifera</i>
	<i>Scirpus maritimus</i>	Rocky Mountain Iris _____	<i>Iris missouriensis</i>
	<i>Scirpus paludosus</i>	Rocky Mountain Rush _____	<i>Juncus saximontanus</i>
Alkali Cordgrass _____	<i>Spartina gracilis</i>	Rocky Mountain Penstemon _____	<i>Penstemon strictus</i>
Alkali Sacaton _____	<i>Sporobolus airoides</i>	Rocky Mountain Sedge _____	<i>Carex scopulorum</i>
American Sloughgrass _____	<i>Beckmannia syzigachne</i>	Round-fruit Rush _____	<i>Juncus compressus</i>
Arrowhead _____	<i>Sagittaria latifolia</i>	Black-eyed Susan _____	<i>Rudbeckia hirta</i>
Arrowweed _____	<i>Triglochin maritimum</i>	Scarlet Bugler _____	<i>Penstemon barbatus</i>
Baltic Rush _____	<i>Juncus balticus</i>	Small-fruit Bulrush _____	<i>Scirpus microcarpus</i>
Beaked Sedge _____	<i>Carex utriculata</i>	Small-winged Sedge _____	<i>Carex microptera</i>
Bebb's Sedge _____	<i>Carex bebbii</i>	Soft Rush _____	<i>Juncus effusus</i>
Blanket Flower _____	<i>Gaillardia aristata</i>	Soft-stem Bulrush _____	<i>Schoenoplectus tabernaemontani</i>
Blue Vervain _____	<i>Verbena hastata</i>		<i>Scirpus acutus</i>
Blue-joint Reedgrass _____	<i>Calamagrostis canadensis</i>	Sweetflag _____	<i>Acorus calamus</i>
Burreed _____	<i>Sparganium eurycarpum</i>	Switchgrass _____	<i>Panicum virgatum</i>
Cloaked Bulrush _____	<i>Scirpus pallidus</i>	Tall Mannagrass _____	<i>Glyceria gradis</i> var. <i>grandis</i>
Colorado Rush _____	<i>Juncus confusus</i>	Three Square _____	<i>Schoenoplectus pungens</i>
Common Cattail _____	<i>Typha latifolia</i>		<i>Scirpus pungens</i>
Common Reed _____	<i>Phragmites australis</i>		<i>Scirpus americanus</i>
	<i>P. communis</i>	Three-flower Rush _____	<i>Juncus triglumis</i>
Creeping Bentgrass _____	<i>Agrostis stolonifera</i>	Tufted Hairgrass _____	<i>Deschampsia cespitosa</i>
Creeping Spikerush _____	<i>Eleocharis palustris</i>	Water Sedge _____	<i>Carex aquatilis</i>
Dwarf Fountain Grass _____	<i>Pennisetum alopecuroides</i> 'Hameln'	Weeping Alkaligrass _____	<i>Puccinellia distans</i>
Dwarf Maiden Grass _____	<i>Miscanthus sinensis</i> 'Morning Light'	Western Wheatgrass _____	<i>Pascopyrum smithii</i>
Feather Reed Grass _____	<i>Calamagrostis acutiflora</i> 'Karl Forester'		<i>Agropyron smithii</i>
Fowl Mannagrass _____	<i>Glyceria striata</i>	Woolly Sedge _____	<i>Carex lanuginosa</i>
Giant Cattail _____	<i>Typha domingensis</i>		<i>C. lasiocarpa</i>
Hall's Rush _____	<i>Juncus hallii</i>		
Hard-stem Bulrush _____	<i>Schoenoplectus acutus</i>		
	<i>Scirpus acutus</i>		
Inland Saltgrass _____	<i>Distichlis spicata</i>		
	<i>Distichlis stricta</i>		
Knotted Rush _____	<i>Juncus nodosus</i>		
Least Spikerush _____	<i>Eleocharis acicularis</i>		
Leatherleaf Sedge _____	<i>Carex buchananii</i>		
Little Bluestem _____	<i>Schizachyrium scoparium</i>		
Little Bunny Fountain Grass _____	<i>Pennisetum alopecuroides</i> 'Little Bunny'		
Longstyle Rush _____	<i>Juncus longistylis</i>		
Maiden Grass _____	<i>Miscanthus sinensis</i> 'Gracillimus'		
Marsh Sunflower _____	<i>Helianthus nuttallii</i>		
Marsh Milkweed _____	<i>Asclepias incarnata</i>		
Maximilian's Sunflower _____	<i>Helianthus maximilliani</i>		
Merten's Rush _____	<i>Juncus mertensianus</i>		
Narrow-leaf Cattail _____	<i>Typha angustifolia</i>		
Nebraska Sedge _____	<i>Carex nebraskensis</i>		
Northern Reedgrass _____	<i>Calamagrostis stricta</i> ssp. <i>inexpansia</i>		
Nuttall's Alkaligrass _____	<i>Puccinellia nuttalliana</i>		
	<i>P. airoides</i>		
Porcupine Grass _____	<i>Miscanthus sinensis</i> var. <i>strictus</i>		
Poverty Rush _____	<i>Juncus tenuis</i>		
Prairie Cordgrass _____	<i>Spartina pectinata</i>		



# Index of Common Names

## Woody Species

American Plum _____	<i>Prunus americana</i>	Saskatoon Serviceberry _____	<i>Amelanchier alnifolia</i>
Bebb's Willow _____	<i>Salix bebbiana</i>	Schubert Chokecherry _____	<i>Prunus virginiana</i> 'Schubert'
Big Sagebrush _____	<i>Artemisia tridentata</i>	Shrubby Cinquefoil _____	<i>Dasiphora fruticosa</i>
Big Tooth Maple _____	<i>Acer grandidentatum</i>		<i>Pentaphyloides floribunda</i>
Birch-leaf Mountain Mahogany _____	<i>Cercocarpus montanus</i>		<i>Potentilla fruticosa</i>
Black Chokecherry _____	<i>Aronia melanocarpa</i>	Silver Buffaloberry _____	<i>Shepherdia argentus</i>
Black Cottonwood _____	<i>Populus trichocarpa</i>	Skunkbrush _____	<i>Rhus trilobata</i>
Bog Birch _____	<i>Betula nana</i>	Small Ninebark _____	<i>Physocarpus monogynus</i>
	<i>B. glandulosa</i>	Smooth Sumac _____	<i>Rhus glabra</i>
Boxelder _____	<i>Acer negundo</i>	Soapweed Yucca _____	<i>Yucca glauca</i>
Brush Oceanspray _____	<i>Holodiscus dumosa</i>	Staghorn Sumac _____	<i>Rhus hirta</i>
Chokecherry _____	<i>Prunus virginiana</i>		<i>Rhus typhina</i>
Common Ninebark _____	<i>Physocarpus opulifolius</i>	Tatarian Maple _____	<i>Acer tataricum</i>
Common Snowberry _____	<i>Symphoricarpos albus</i>	Thimbleberry _____	<i>Rubus parviflorus</i>
Coralberry _____	<i>Symphoricarpos orbiculatus</i>	Thinleaf Alder _____	<i>Alnus incana</i> ssp. <i>tenuifolia</i>
Creeping Oregon Grape _____	<i>Mahonia repens</i>		<i>A. tenuifolia</i>
Curl-leaf Mountain Mahogany _____	<i>Cercocarpus ledifolius</i>	Twinberry _____	<i>Lonicera involucrata</i>
Douglas Fir _____	<i>Pseudotsuga menziesii</i>	Virginia Creeper _____	<i>Parthenocissus quinquefolia</i>
Fragrant Sumac _____	<i>Rhus aromatica canadensis</i>	Washington Hawthorne _____	<i>Crataegus phaenopyrum</i>
Fringed/Pasture Sagebrush _____	<i>Artemisia frigida</i>	Water Birch _____	<i>Betula occidentalis</i>
Four-wing Saltbush _____	<i>Atriplex canescens</i>		<i>B. fontinalis</i>
Gambel Oak _____	<i>Quercus gambelii</i>	Wax Current _____	<i>Ribes cereum</i>
Geyer's Willow _____	<i>Salix geyeriana</i>	Western Sandcherry _____	<i>Prunus bessyi</i>
Golden Current _____	<i>Ribes aureum</i>	Western Snowberry _____	<i>Symphoricarpos occidentalis</i>
Green Ash _____	<i>Fraxinus pennsylvancia</i>	Wood's Rose _____	<i>Rosa woodsii</i>
Late Lilac _____	<i>Syringa villosa</i>	Yellow-twig Dogwood _____	<i>Cornus sericea</i> var. <i>Flaviramea</i>
Leadplant, Desert False Indigo _____	<i>Amorpha canescens</i>		
Leadplant _____	<i>Amorpha fruticosa</i>		
Lilac _____	<i>Syringa vulgaris</i>		
Mountain Willow _____	<i>Salix monticola</i>		
Nanking Cherry _____	<i>Prunus tomentosa</i>		
Nannyberry _____	<i>Viburnum lentago</i>		
Narrow-leaf Cottonwood _____	<i>Populus angustifolia</i>		
Net-Leaf Hackberry _____	<i>Celtis laevigata</i> var. <i>reticulata</i>		
Oregon Grape _____	<i>Mahonia aquifolium</i>		
Peach-leaf Willow _____	<i>Salix amygdaloides</i>		
Plains Cottonwood _____	<i>Populus deltoides</i>		
	<i>Populus sargentii</i>		
Planeleaf Willow _____	<i>Salix planifolia</i>		
Ponderosa Pine _____	<i>Pinus ponderosa</i>		
Purple-leaf Sand Cherry _____	<i>Prunus x cistena</i>		
Quaking Aspen _____	<i>Populus tremuloides</i>		
Redberried Elder _____	<i>Sambucus racemosa</i>		
Red-twig Dogwood _____	<i>Cornus sericea</i>		
Rocky Mountain Bristlecone Pine _____	<i>Pinus aristata</i>		
Rocky Mountain Maple _____	<i>Acer glabrum</i>		
Rubber Rabbitbrush _____	<i>Ericameria nauseosus</i>		
	<i>Chrysothamnus nauseosus</i>		
Rugosa Rose _____	<i>Rosa Rugosa</i>		
Russet Buffaloberry _____	<i>Shepherdia argentea</i>		
Sandbar/Coyote Willow _____	<i>Salix exigua</i>		

# Ordering Information

## Guarantee

Aquatic and Wetland Company guarantees that all of our plant materials are of the utmost quality and true to form. If within 24 hours of delivery our plant material does not meet your final inspection contact us for material replacement. No warranty on survivability beyond the 24-hour period is either expressed or implied.

Aquatic and Wetland Company reserves the right to prorate or cancel any order and no liability is assumed for delay or failure to deliver caused by strikes, fire, frost, flood, drought, disease, or any other circumstances or contingencies beyond our control. All nursery stock is offered for sale subject to crop yield and prior sale.

## Terms

All prices are F.O.B. Ft. Lupton, Colorado. All new customers pay C.O.D. until a good credit line is established.

A 20% deposit on plant materials is required to reserve plants for all contract grow orders. The remaining balance is due upon receipt of materials. Please note that we do not accept credit cards. There will be a 3.0% finance charge per month compounded monthly on any portion of an account that becomes overdue. Accounts are considered overdue if payment is not received within 30 days of the invoice date.

## Shipping

Boxing charges and freight are not included in the plant price and will be added to the invoice at the time of shipment. Deliveries within a 100 mile radius of our Fort Lupton facility will be made by our trucks for a nominal delivery fee. There is a \$500 minimum order for delivery by AWC. Smaller orders can be picked up at our Ft. Lupton location. Refer to map on page XX. Materials shipped by other modes cannot be guaranteed against delays, mishandling, or other circumstances beyond our control. You will be advised if special shipping arrangements are necessary (i.e. air freight, refrigeration etc.). Please call for more information.

## Sales Tax

All state and local sales taxes will be added to the invoice amount, and is not included in initial plant material quotes.



# Container Information

Our nursery provides quality plant material in various forms and sizes to meet different project requirements.

## Herbaceous Species

### Standard Sizes

- bareroot stock
- 200 plugs (1 in<sup>3</sup> root mass)
- 2.5" containers
- other sizes on request

### Contract Grow Sizes

- 3 cubic inch cones
- 10 cubic inch cones
- quart pots

Please note that herbaceous species must be ordered in full flat quantities for example:

2.5 in. pots come in flats of 32 (32, 64, 128, 160 etc.)

10 in<sup>3</sup> cones come in flats of 98 (98, 196, 294, 392, etc.)

3 in<sup>3</sup> cones come in flats of 104 (104, 208, 312, 416, etc.)

Plugs come in flats of 200 (200, 400, 600, etc.)

Ordering plants in full flat quantities also expedites the dispersal of plants throughout the site and insures accurate numbers per planting area assigned.

## Woody Species

### Standard Sizes

- bareroot stock
- 1 gal. container
- 5 gal. container
- Balled and Burlapped

### Contract Grow Sizes

- rooted cuttings
- 10 cubic inch cones
- 2.5" containers
- quarts

Other sizes and forms upon request

