

OAGC Exhibitors and Judges School #3

PLANT IDENTIFICATION

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STUDENTS: Test parameters appear on page 8.

Evergreen Trees & Shrubs	Descriptions
<p>Douglasfir/Douglas fir</p> <p><i>Pseudotsuga menziesii</i></p> <p>(sö-dō-sö'gä men-zē'zē-ī)</p>	<p>Leaves: Evergreen needles about 1" long, flat, blue-green to dark green, circling the branches, useful in recognizing the species. Height: 40-80'. Spread: 12-20'. Habit: Upright, pyramidal shape in youth, but less defined with age. Flowers: monoecious; males oblong, red to yellow near branch tips; females reddish, with long bracts Fruit: Cones are pendulous, unique with a forked, snake-tongue-like bracts extending from each scale. Uses: Lumber Also, a popular christmas tree as it retains its soft, short needles and its shape. Native to Western U.S.</p>
<p>Chinese Juniper</p> <p><i>Juniperus chinensis</i></p> <p>(jō-nip'ēr-us chī-nen'sis)</p>	<p>Leaves: different ratio's of scale-like and awl-like needles depending on cultivar, green to blue green. Flowers: dioecious, male flowers yellow-brown to orange-yellow; female greenish. Fruit: circular, 1/3" across, on new wood, at first whitish blue bloom then brown. Habit: tree or shrub, narrow upright and/or spreading habit, 15-20 feet tall. Many cultivars form groundcovers to wide spreading shrubs. Native to China, Japan, and Mongolia. Note: <i>High allergenic pollen.</i></p>
<p>Creeping Juniper</p> <p><i>Juniperus horizontalis</i></p> <p>(jō-nip'ēr-us hōr-i-zon-tā'lis)</p>	<p>Leaves: different ratio's of scale-like and awl-like needles depending on cultivar, green, bluish or grey-green often turning purple in winter. Flowers: dioecious, inconspicuous. Fruit: cones on recurved stalks 1/3" across, bluish-greenish black 1/4"-3/4" long. Habit: low growing, spreading shrub with long, trailing branches forming large mats. Native to N.America</p>

<p>Eastern Redcedar</p> <p><i>Juniperus virginiana</i></p> <p>(jŏ-nip'ēr-us vēr-jin-i-ā'nå)</p>	<p>Leaves: pairs of scale-like and awl-like needles, generally medium to dark green with a blue cast turning purple in winter. Flowers: dioecious; male yellow, female green. Fruit: egg-shaped, up to ¼" long, shining brown to almost blue with a waxy bloom. Habit: densely pyramid when young to slightly pendulous when mature; 40-50 tall by 8-20'. Native to North America.</p>
<p>Norway Spruce</p> <p><i>Picea abies</i></p> <p>(pī'sē-å ā'bēz)</p>	<p>Leaves: ½ to 1" long, curving slightly forward, ending in blunt point, light to dark green, four sided. Flowers: Monoecious, male are axillary & infrequent, female terminal, spread on the crowns of the trees and reddish pink in color. Fruit: cylindrical cones, 4-6" long by 1-1/2" to 2" wide, pendulous, purple or green in youth, light brown when mature. Habit: pyramidal with pendulous branchlets, 40-60'x25-30'wide. Native to Europe.</p>
<p>Black Spruce</p> <p><i>Picea mariana</i></p> <p>(pī'sē-å mar-ē-ā'nå)</p>	<p>Leaves: crowded on the upper side of the stem, pale green or glaucous, 1/2-3/4" long, incurved, ending in an acute or roundish horny point, four sided. Flowers: monoecious, male pale red becoming yellow, female purple. Fruit: cylindrical cones, 1-2-1/2" long, pale brown when ripe. Habit: broad & dense pyramid in youth, becoming tall, fairly narrow, dense, compact and regular with ascending branches. Native to northern North America.</p>
<p>Colorado Spruce</p> <p><i>Picea pungens</i></p> <p>(pī'sē-å pun'jenz)</p>	<p>Leaves: spreading more or less all around the stem, incurved and very prickly, ¾ to 1-1/4" long, varying in color on different trees from dull green, bluish or silvery-white, four sided. Flowers: monoecious, male orange, female greenish to purplish. Fruit: cones cylindrical but narrowed at each end, 2-4" long, light brown when mature, scales wavy, jaggedly toothed. Habit: dense narrow to broad pyramid with horizontal stiff branches to the ground; often becoming open, poor and dingy in age, 30-60' tall by 10-20' spread. Native to U.S.</p>

<p>Alberta Spruce/Dwarf White Spruce <i>Picea glauca 'Conica'</i> (pī'sē-å glaw'ka kon'i-kâl)</p>	<p>Perfect cone-shaped dwarf conifer with dense bright green ½" needles which are soft to the touch. Prized for its foliage. A superb container specimen. Likes well drained, acid soil. Seldom needs pruning. Tolerant of drought and resistant to deer. Zones 2-7. Habit: Slowly reaches 6-8 ft. tall, 4-5 ft. wide. Uses: Miniature Christmas Tree, Topiary, Fits in small spaces. Native to: Northern N. America.</p>
<p>Eastern White Pine <i>Pinus strobus</i> pī'nus strō'bus)</p>	<p>Leaves: needles in bundles of 5, slender, 3-5" long, medium to fine textured, medium green. Flowers: monoecious, male: clustered & yellow, female: pink. Fruit: cones, pendant, resinous, 6-8" long by 1-1/2" wide, light brown. Habit: pyramidal when young, becoming cylindrical & loosing lower branches with age. Branches very flexible. 50-80' tall by 20-40'. Very soft appearance. Native to N. America.</p>
<p>Austrian Pine <i>Pinus nigra</i> (pī'nus nī'grå)</p>	<p>Leaves: Needles in bundles of 2, 3-6" long, thick, straight or curved, stiff, dark green, apex sharp point. Flowers: monoecious, male clustered and yellow, female yellow-green. Fruit: cones, solitary or in clusters, oval shaped 2-3" long by 1 to 1-1/4" wide, becoming brown with age. Habit: 50-60' by 20-40' spread, densely pyramidal when young, large, flat-topped tree when mature with beautiful silvery colored bark. Native to Austria.</p>
<p>Yew <i>Taxus sp.</i> (taks'us sp.)</p>	<p>Leaves: flat needles, dark green above, light green beneath, blunt-pointed, distinctly two-ranked, branchlets olive green. Flowers: usually dioecious, male are on undersides of the branchlets of the previous year; females in the leaf axils opening in March-April. Fruit: fleshy, red aril covers hard brown seeds. Habit: tree or multi-stem shrub, varying from 2-60' in height to 25' wide. Native to Korea, Japan, Europe, W. Asia, N. Africa, US & Canada. CAUTION: berries highly poisonous. One berry can kill a small child. All parts dry or green, are toxic to people & livestock. Many many species.</p>

<p>Eastern Arborvitae/American Arborvitae/Whitecedar</p> <p><i>Thuja occidentalis</i></p> <p>(thū'gå ok-si-den-tā'lis)</p>	<p>Leaves: scale-like, about 1/12" long, shiny bright green above, pale green beneath, emits a tansy-like odor when bruised. Flowers: monoecious, terminal, solitary. Fruit: oblong cones, 1/3 to ½" long, light brown with 8-10 scales. Habit: a broad-pyramidal tree with short ascending branches to the ground ending in flat, spreading, horizontal sprays; usually one trunk, 40-60' tall by 10-15' wide. Native to Eastern North America. Many cultivars and forms.</p>
<p>Canadian Hemlock/Eastern Hemlock</p> <p><i>Tsuga canadensis</i></p> <p>(tsū'gå kan-å-den'sis)</p>	<p>Leaves: 2 ranked, lustrous dark green above, with 2 whitish bands beneath, toothed with a short petiole. Flowers: monoecious, male light yellow, female pale green. Fruit: slender cones, 1/2-1" long by ¼ to ½" broad, brown at maturity. Habit: soft and gracefully pyramidal when young becoming pendulously pyramidal with age, 40-70' by 25-35' in spread. Native N. America.</p>
<p>Common Boxwood</p> <p><i>Buxus sempervirens</i></p> <p>(buk'sus sem-pěr-vī'renz)</p>	<p>Leaves: opposite, simple, elongated, dark green above, light or yellowish green beneath, stem slightly angled (squarish). Flowers: creamy in clusters, appearing in April-May, fragrant. Habit: 15-20' tall with equal spread. Slow growing. Native to southern Europe, north Africa, & western Asia.</p>
<p>Wintercreeper Euonymus var. 'Emerald 'n Gold'</p> <p><i>Euonymus fortunei 'Emerald 'n Gold.'</i></p> <p>(ū-on'i-mus fôr-tū'n ē-ī)</p>	<p>Leaves: Opposite, evergreen leaves <1" long. Many different variable color combos. Flowers: Only on adult types, greenish-white, not showy Habit: Ground cover(4-12"), high climbing clinging vine(6-40'), or shrub (1 ½ - 6'), fast growing. Leaf color varies according to cultivar. Native to China.</p>
<p>China Girl Holly</p> <p><i>Ilex meserveae 'China Girl'</i></p> <p>(ī'leks me-sěrv'ī-ē)</p>	<p>Leaves: Alternate, leathery, spiny, Lustrous green, slightly cupped, margins turn down Flowers: dioecious, not showy. Fruit: Beautiful red berries in fall. Variety 'China Boy' is the pollinator for this plant. Habit: A handsome female form; Rounded, mounding 6'x 5' at maturity. Excellent heat tolerance. Native to Japan.</p>

Houseplants	Descriptions
<p>Spider Plant <i>Chlorophytum comosum</i> (klō-rō-fi'tum kō-mō'sum)</p>	<p>Leaves: arching, lance-shaped leaves up to ¾" wide by 12" long. Some species are variegated with green & white, cream or yellow longitudinal stripes. Flowers: small six-petaled, white flowers carried on pale yellow stems up to 2 feet long. Habit: produces clumps of soft, arching foliage. Little plants (spiders) with roots appear on the ends of the arching stems. Native to South Africa. Note: Excellent ability to remove toxins from the air.</p>
<p>Croton sp. <i>Codiaeum species</i> (kō-di-ē'um sp.)</p>	<p>Leaves: vary by variety, wide & short, long & slender, curled, wavy or flat. Generally glossy & leathery, short petioles, solid color or in combinations of yellow, green, copper, red, pink, orange, brown, and cream. Flowers: not significant, fluffy, cream colored. Habit: multi-branching, upright, bushy shrubs up to 3 ft tall with a spread of up to 2 feet. Native to Malaysia and many Pacific islands.</p>
<p>Jade Plant <i>Crassula ovata</i> (kras'ū-la ō-vā'tā)</p>	<p>Leaves: vary by variety but most have fleshy pairs, elliptic, rounded to bluntly acute above, shiny dark green to gray-green with red or pale green margins. Flowers: tiny, not significant. Habit: Long lived plant with many fleshy branches and thick stems, some plants are bushy. Native to Eastern Cape of South Africa.</p>
<p>Golden Pothos, Devil's or Solomon Islands' Ivy <i>Epipremnum aureum</i> (ep-ē-prem'num â-rē'um)</p>	<p>Leaves: alternate, large, shiny, heart-shaped, bright green with bold, irregular yellow markings. Flowers: rare if any. Habit: trailing vine up to 7 ft long with aerial roots. Native to Malaysia, Indonesia, and New Guinea.</p>
<p>Heartleaf Philodendron <i>Philodendron scandens</i> (fil-ō-den'dron skan'denz)</p>	<p>Leaves: deep green, heart-shaped 4" by 3" on slender stems with acute tips. Flowers: not significant. Habit: fast growing vine. Toughest of all house plants, the heartleaf philodendron can take just about anything other than cold temperatures. Native to Central and Northern South America.</p>

<p>Wandering Jew, Spiderwort, Inch Plant</p> <p><i>Tradescantia</i> species</p> <p>(trad-es-kan'-shi-å sp.)</p>	<p>Leaves: pale green, white striped foliage, or reddish-violet, green, pink, off-white, or bronze striped foliage 2 1/2" long, oblong shape attached at swollen joints. Flowers: small three-petaled, white, purple, or pink, lasting only one day. Habit: fleshy weak stemmed, vining plant. Pinch to keep plant full. Low allergenic pollen. These plants need some direct sunlight daily to keep their decorative leaf coloring. Native to South America and Mexico.</p>
<p>Madagascar Jewel</p> <p><i>Euphorbia leuconeura</i></p> <p>(ū-fôr'bi-å loo-kō-nôr-å)</p>	<p>Leaves: Dk. Green, younger leaves have white veins. Flowers: Small White. Seeds: Shoot out of pods when mature. Habit: Its natural <u>habitat</u> is forest undergrowth in rocky areas. Threatened by <u>habitat loss</u>. Native to Madagascar.</p>
<p>Perennials</p>	
<p>Lenten Rose</p> <p><i>Helleborus orientalis</i></p> <p>(He-leb'ō-rus ôr-i-en-tā'lis)</p>	<p>Provides extraordinary blooming power during early spring months; Flowers: cup-shaped in rich shades of purple, pink, red & white making drab days cheerier. They continue blooming until April. Foliage: handsome, evergreen plants multiply over time & last for weeks. Self-seeding. Deer resistant. Native to Asia & Europe</p>
<p>Italian Arum</p> <p><i>Arum italicum</i></p> <p>(ā'rum i-tal'i-kum)</p>	<p>Looks like a houseplant, but not. A winter garden plant belonging to the philodendron family. In Sept., corms send up dark green, mottled, arrowhead shaped leaves. Flowers (white spathes hidden amongst the foliage) appear in May. In June, the leaves die down. Soon after, in summer seed pods (bright orange) appear. Arum is most often grown in deciduous woodland gardens but do fine in full sun. Once established, they're almost indestructible. Native to the Mediterranean.</p>
<p>Scilla/Squill</p> <p><i>Scilla</i> sp.</p> <p>(sil'å sp.)</p>	<p>A <u>genus</u> of about 50-80 <u>bulb</u> forming <u>perennial herbs</u> of family <u>Asparagaceae</u>. Flowers: (usually blue) bloom in early spring. Easily naturalize through bulb division and seeding themselves. Native to Europe, Africa, Middle East, Australia, and North America.</p>

<p>Creeping Phlox/Moss Pink</p> <p><i>Phlox subulata</i></p> <p>(flok̄s sub-ū-lā-tå)</p>	<p>Favorite spring ground cover. Colors available are red, white, blue, rose, lavender, purple, pink, and variegated. The plants reach >6"height & spread out forming 2' mat. Some of the needle-like foliage remains green all winter. Deer resistant & butterfly attractor. Native to N. America.</p>
<p>Blood Root</p> <p><i>Sanguinaria canadensis</i></p> <p>(sang-gwi-nā'ri-å kan-a-den'sis)</p>	<p>Only species in this genus. Grows 8-19" tall with 1 large handsome basal lobed leaf. Leaves & flowers sprout from a reddish rhizome with bright orange sap. Flowers white/yellow stamens. Rhizomes grow longer each year forming colonies. Flowers appear early (March-May before foliage unfolds. Goes dormant later in the summer. Green seed pods. Native to Eastern N. America.</p>
<p>Wake Robin/Sessile Trillium</p> <p><i>Trillium sessile</i></p> <p>(tril'i-um ses'il)</p>	<p>Grown from <u>rhizomes</u>. The 3 large bracts (not leaves) are arranged in a whorl. There are no true above-ground leaves. The leaflike bracts are photos<u>synthetic</u>. The inflorescence is a single flower. born directly on the bracts (<u>sessile</u>). The flower has three <u>sepals</u> (petals), usually red or yellow. The fruit is fleshy and capsule-like or berrylike. Native to North America & Asia.</p>
<p>Spring Beauty</p> <p><i>Claytonia lanceolata</i></p> <p>(klā-tō'ni-å lan-sē-ō-lā'tå)</p>	<p>Perennial woodland wildflower, 3-6" tall. It has a flowering reddish green stem, 2 opposite leaves & basal leaves. The stem is rather succulent. Leaves: 2-5" long linear-lanceolate, glabrous with smooth margins, slightly fleshy with a central vein, width:¼". The stem ends in a floppy raceme of flowers. Flower: Width 1/3" when fully open, it has 5 white petals/pink markings. The flowers open up on warm sunny days, but close during nights & cloudy days. Blooms from mid-late spring for 1-2 months. Blooms have a pleasant floral scent. The root is a corm with secondary roots. Native to North America.</p>

Pronunciation Key		
a = hat	e = set	o = hot
ā = gate	ē = he	ō = rote
ä = father	ë = sir	ö = move
â = mall	î = tin	ô = orr
ã = hare	ĩ = sign	u = cub
å = familiar		ũ = cute

TEST PARAMETERS

Students must learn both common and botanical names (genus & specific epithet). The first letter of the genus is always capitalized; the first letter of the specific epithet is always lowercase. For some plants there may not be a specific epithet because there is more than one species of the plant. In that case, you will see “sp.” after the genus. When studying and writing the botanical name, please include both the genus and sp. For example - *Dianthus* sp.

On the plant test, students will be asked to **identify 20 plants**. They will NOT be in the same order as on this list.

Scoring is as follows:

genus = one point i.e. *Acer*

specific epithet (species) = one point i.e. *negundo*

common name = two points i.e. Boxelder

correct spelling = ½ point each common name and botanical name

Total possible points = 5 per plant

References

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Definitions:

Axillary - in the axil

Dioecious - each sex is on a separate plant

Margin - edge of the leaf

Monoecious - both sexes are on the same plant

Sessile - means 'sitting on'. The bloom sits directly on the bracts with no stem between it and the bracts.

Spadix - fleshy club-shaped axil on which are borne the flowers

Spathe - bract or modified leaf surrounding the spadix