This is the "Fleischmann Ag Quad" Tree Tour. It starts on the right side of the breezeway where it enters the quad. It goes counterclockwise along the area between the sidewalk and the attached Fleischmann Ag and Life Sciences Buildings, then along the west side of Life Sciences, tours the Tibbitts Plaza and nearby trees, tours the trees inside the sidewalk of the Ag Quad, and finishes where the sidewalk from the breezeway meets the sidewalk of Life Sciences.

Okay, let's get started!
1

At number 1 on the map to the right of the breezeway is a treeshrub (a plant that can have either a tree or shrub form). This is a yew, probably English Yew (scientific name *Taxus baccata*, planted 1957), native to the area around the Mediterranean Sea. Yews are slow-growing, grow in full shade, and don’t get very large. They have what look like red berries, but which are outgrowths of cones on this conifer. Birds eat the berries and spread the seeds inside. Leaves are flat and perpendicular to stems.

2

Take the sidewalk to the right. About halfway along the sidewalk at number 2 on the map is a glossy-leaved tree on the north side of the building. This is English Holly (scientific name *Ilex aquifolium*, planted 1957), which is native to Europe and Asia. It has lustrous dark green, undulating, spiny-edged leaves. This tree is one of three broadleaf evergreen trees which grow in Reno. It prefers shady sites, which explains its placement. English holly has small white flowers, but its best feature are its bright red berries -- which can hang on all Winter -- and its lush evergreen foliage. This tree is the Nevada State Champion.

3

Turn left on the sidewalk. Go to four trees with fan-shaped leaves in planters in the middle of the sidewalk. Proceed to the last tree at number 3. This tree is the Nevada State Champion Ginkgo (scientific name *Ginkgo biloba*). It is one of the oldest tree species still existing, first found in fossils around 150 million years old; it is now native to China, but was once found in North America. Trees are male or female; female trees are rarely planted anymore because the fruits are messy and have a disagreeable odor. The leaves are fan-shaped.
Between the sidewalk and the building on the right is a UNR garden named the Joe Robertson Native Plant Garden. The next two trees are the only remaining originally-planted trees. The tree to your right at number 4 with small leaves that look like those of succulent plants is **Curl-leaf Mountain Mahogany** (scientific name *Cercocarpus ledifolius*, planted early 1960s), a tree native to the Sierra Nevada. It grows at about 4000 to 6000 feet. This tree is an expert at retaining as much water as possible. The most interesting feature of this tree is its seedpods. They are fuzzy and curl up at the end much as a butterfly's proboscis does.

A few feet to your left at number 5 is another water-saver, a **Joshua Tree** (scientific name *Yucca brevifolia*, planted early 1960s). A native of the Mojave Desert of Southern Nevada and California, its leaves are bayonet-shaped, succulent, and have evolved to deter grazing animals; they grow only a few inches per year. This tree is a monocot, unlike almost all other trees at UNR -- it has no growth rings, so it is impossible to determine its age. Its white flowers, blooming in rare years, are in panicles (rounded bunches about 15 by 15 inches).

Turn left and follow the sidewalk to the tree growing very close to the building at number 6.

This is **Vanderwolf Pine** (scientific name *Pinus flexilis* 'Vanderwolf', planted 1991). It is a cultivar of Limber Pine, a native of Northeastern Nevada and parts east. Like all other White Pines, it has needles bundled in groups of five. This cultivar is popular because it grows two feet a year --
faster than all other white Pines grow here -- and has a symmetrical upright form and has blue-green foliage. This tree is the Nevada State Co-champion.

Continue on the sidewalk to the corner of the building, where there are three trees.

7 Eastern Arborvitae

Against the building near its southwestern corner at number 7 is a tall, thin, multi-trunked tree called Eastern Arborvitae (scientific name Thuja occidentalis, planted 1963). It is native to Eastern North America, and is valued because it is columnar and is an evergreen tree with small inconspicuous cones. This tree is often planted between buildings and sidewalks, and landscape architects use it to visually soften building corners.

8 Columnar English Oak

Next to it at number 8 and growing into the arborvitae, is a Columnar English Oak (scientific name Quercus robur 'Fastigiata,' planted 1989). This cultivar of the European, North African and West Asian native species has a higher branch angle than the species, and so the trees are thinner. They are used all over the campus where there is not much room between the building and the sidewalk.

9 Port Orford Cedar

Turn right onto the large sidewalk. Next to the English Oak at number 9 is Port Orford Cedar (scientific name Chamaecyparis lawsoniana, planted 1963). Native to the southern Oregon coast, this evergreen tree also has small cones (compare them with those of the Arborvitae). These trees grow well in Reno, but for some reason there are only a few in town.

Tree No.
Northern Red Oak

Across the larger sidewalk from this tree at number 10 is Northern Red Oak (scientific name *Quercus rubra*, planted 1995), native to the Eastern U.S. This tree has leaves with pointed lobes (a hallmark of the Red Oak Group). Northern Red Oak is an excellent ornamental tree for Northern Nevada because it has red, orange and yellow Fall color, has few problems, and grows rapidly. The tiny oak flowers look like strings drooping down from the branch.

Black Alder

Head to the two large trees in the raised planter on the left just past the steps about halfway along the Orvis Building at number 11. These are Black or European Alder (scientific name *Alnus glutinosa*, planted late 1960s). Native to Europe, North Africa and Western Asia, this tree has 1/2 inch black cones reminiscent of pine, dark smooth bark, and fine-toothed leaves.

Crimean Linden

Ahead on your right, in an area of the campus called the Tibbits Plaza, is another raised planter area. The three trees here at number 12 are Crimean Linden (scientific name *Tilia x euchlora*, planted 1995). They are an offspring of Littleleaf linden (scientific name *Tilia cordata*, a native of Europe and planted as a shade tree since ancient times) but are superior in many ways. Nevertheless, Littleleaf linden is much more widely planted, including at UNR. The middle tree is the Nevada State Champion.
The small tree just a few feet north at number 13 is **Japanese Maple** (scientific name *Acer palmatum*, planted 1995), native to Japan, China, and Korea. It hybridizes readily, and there are hundreds of cultivars available. It has the pointed, palm-shaped leaves typical of Maples. It is sought after because it stays small, grows slowly, and has a controlled form (it's a major element of Japanese gardens). It is best planted to the east or north in Reno.

The tree just to the right at number 14 is **Canada Red Chokecherry** (scientific name *Prunus virginiana* 'Canada Red', planted 1995). This cultivar of the North American native chokecherry has leaves which come out green and turn maroon in May and June. The purple fruits are a delicacy for birds, but are pretty tart when eaten out of hand. This particular tree is the Nevada State Champion.

Retrace your steps to the south end of the building on the left. Turn left on the sidewalk and go to where the sidewalk turns right. On the right at number 15 is a conifer. The branches of this tree, **Dawn Redwood** (scientific name *Metasequoia glyptostroboides*, planted in the 1980s), tend to arch upward, and the cones are egg-shaped with deep grooves which tend to go around the cone. This tree was found in the wilds of China in 1947, and it has been imported all over the world. Its fast growth rate, interesting form, and russet-brown Fall color before it loses its leaves make it a sought-after accent tree.
Turn right on the sidewalk and head toward the large conifer 40 feet south at number 16. This is Scotch Pine (scientific name *Pinus sylvestris*, planted in the 1980s). It is very commonly planted locally and is often confused with Austrian pine, another European native; there are two major differences between these two trees. Notice that the Scotch pine's upper limbs are brown (Austrian's are gray) and the upper limbs do not grow straight up like the Austrian's. This pine has bundles with two needles.

20 feet farther along at number 17, where the sidewalk turns right, is a weeping tree. This is Camperdown Elm (scientific name *Ulmus glabra* 'Camperdownii', planted 1991). It accidentally
appeared in the 1830s and has been uncommonly used as an accent tree ever since. Its main claim to fame is its weeping, contorted form. It has medium-toothed leaves similar to those of other elms. This particular tree has a twisted trunk at about five feet -- an example of the contorted form making these trees desirable.

A few feet west at number 18 is a tree with five-lobed leaves. This is Common Horsechestnut (scientific name *Aesculus hippocastanum*, planted 1989), native to the mountainous wilds of Greece and Albania. In Spring it has large striking clusters of white flowers, followed in Fall by spiny fruits. The seeds inside are round, reddish brown, and about an inch in diameter, and look like those of near relative American Chestnut. However, they require special preparation to be easily digestible. Common Horsechestnut is widely planted in park areas of Europe, where the trees are shaped (some might say "mutilated").

A few feet west at number 19 is Bald Cypress (scientific name *Taxodium distichum*, planted in the 1980s), one of two in the Quad; the one near the north-south sidewalk splitting the Quad is the Nevada State Champion. Native to the southeastern United States, Bald Cypress grows best in swamps (it is the star tree in swamp movies with its "knees"), but is tolerant of many sites. Bald Cypress resembles Dawn Redwood, but you can compare them in the Fleischmann Ag Quad: Bald Cypress has round cones with grooves that form polygons and has more or less horizontal branches; Dawn Redwood (number 15) has egg-shaped cones with grooves that tend to go around the cone, and has upswept branches.

Distinguishing between these two trees puts you ahead of the curve.
Walk past another Bald Cypress toward the tree northwest of the north-south sidewalk at number 20. This is an Apple (scientific name *Malus domestica*). Apple trees have been cultivated for thousands of years. This particular tree bears fruits yearly. There are so many Apple cultivars that it is difficult to differentiate them, but this may be an heirloom cultivar called 'Arkansas Black.'

The tree 20 feet to the northwest at number 21 is Tuliptree (scientific name *Liriodendron tulipifera*, planted 1988). This Eastern North America native, which can grow to be the tallest native tree there, is called "tuliptree" because both the leaves and the orange-and-green flowers are shaped like tulip flowers. Its leaves easily identify a tuliptree. This particular tree is not doing well; to see a very healthy one, go on the "Around Clark Administration" Tree Tour.

The two trees a few feet farther up the sidewalk toward Orvis Nursing Building at number 22 are Thornless Honeylocust (scientific name *Gleditsia triacanthos var. inermis*, planted 1988), another popular Northern Nevada tree. Native to the Eastern and Midwest U.S. It has compound leaves; look at the connection with the branch, and you will see that there are both a central stem and side stems with 20 to 30 roundish leaflets perpendicular to them. Honeylocust, once established, is a tough tree. The zig-zag twigs and twisted dark brown 6-inch-long seedpods easily identify Honeylocust, as do the greenish-yellow compound flowers. Honeylocust has bright yellow Fall color.

This concludes the "Fleischmann Ag Quad" Tree Tour.