



Clayton Keith “Clay” Yeutter
23rd United States Secretary of Agriculture

Clayton Yeutter (December 10, 1930 – March 4, 2017) is one of four Nebraskans who served as United States Secretary of Agriculture. Yeutter served under George H. W. Bush from 1989 to 1991, developing the 1990 Farm Bill (the Food, Agriculture, Conservation, and Trade Act of 1990).

Born and raised in Eustis, Nebraska, Yeutter graduated from the University with High Distinction in Animal Husbandry in 1952. Rather than returning to the farm, he embarked on a career that would lead him to both a JD and Ph.D., a faculty position at UNL, and then on to decades of public service and leadership positions in the private sector. Still, Yeutter reflected, “I once wanted to stay in Nebraska and be a successful farmer. There are days when I get a yearning to return.”

- 1952 BS NU, College of Agriculture 1st in Class
- 1952-1957 U.S. Air Force, Basic Airman (1957-1975 active reserve)
- 1960 NU faculty, Ag Economics, Agricultural Law
- 1963 J.D. NU, Cum Laud, 1st in Class
- 1966 Ph.D. NU, Agricultural Economics
- 1966-1968 Executive Assistant to the Governor of Nebraska
- 1968-1970 Director of the NU Mission in Columbia
- 1970-1971 U.S. Department of Agriculture (USDA)
Administrator of Consumer and Marketing Service
- 1972 Regional Director & Director for Agriculture,
Committee for the Reelection of the President
- 1973-1974 USDA Asst. Secretary of Agriculture
for Marketing and Consumer Services
- 1974-1975 USDA Asst. Secretary of Agriculture for
International Affairs and Commodity Programs
- 1975-1977 Office of the President, Deputy Trade Representative
- 1977-1978 Senior Partner Nelson, Harding, Yeutter & Leonard
- 1978-1985 President and CEO Chicago Mercantile Exchange
- 1985-1989 United States Trade Representative
- 1989-1991 U.S. Secretary of Agriculture
- 1991-1992 Republican National Committee Chairman
- 1992-1993 Counselor to the President
- 1993 Senior Advisor, Hogan & Hartson L.L.P, law firm

WHICH IS IT: PINE, SPRUCE, or FIR?

There are a few simple ways to tell the major Yeutter conifer genera apart based on two main morphological features: leaves and cones.

LEAVES or NEEDLES:

1. *Pinus* (Pine): attached to the twigs in bundles of two, three, or five. (Larch trees also have needles in bundles.) Although there are short-needled pines, in general, pine needles are longer than those of spruce and fir.
2. *Picea* (Spruce): needles are square, hard and sharply pokey at the ends, and can be rolled between your fingers. They are attached to the twigs by little stalks.
3. *Abies* (Fir): needles are soft and flat with blunt ends. They cannot be rolled between your fingers. They are attached directly to the twig, with circles at the base that look like little suction cups.



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2



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SEED (FEMALE) CONES:

1. *Pinus* (Pine): can be small or large, short or long; but all hang downward and are stiff and woody.
2. *Picea* (Spruce): can be small or large, short or long; but all hang downward and are soft and flexible with thin scales.
3. *Abies* (Fir): always grow upward, are cylindrical, and may be blue or purple when young



1



2



3



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EARL G. MAXWELL ARBORETUM

Spruces and other Conifers of the Yeutter Garden



① ***Chamaecyparis pisifera* · Sawara Cypress**
☀️🌵 20'+ in cultivation (50-70' in the wild), native to Japanese islands of Honshu and Kyushu. Zones 4-8. Prefers moist, well-drained soils. Red-brown vertically-fissured bark; the foliage is arranged in flat sprays and the adult leaves are scale-like.

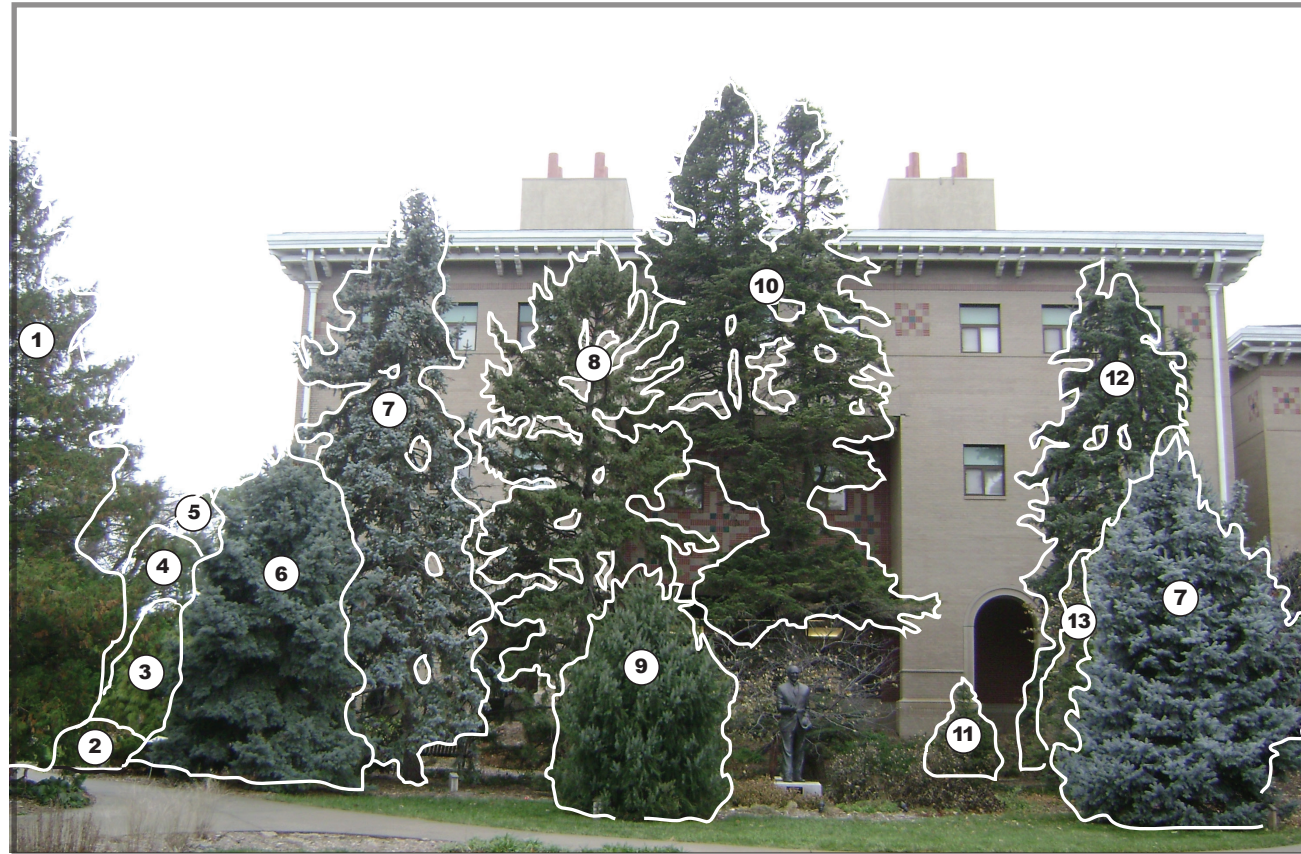
② ***Pinus mugo* var. *pumilio* · Dwarf Mugo Pine**
☀️🌵 3 -5' × 6 - 10'+ Zones 3-7, native to the high mountains of central and southern Europe. Dark green rigid needles, 1 to 2 inches in length, appear in bundles of two.

③ ***Pinus strobus* ‘Pendula’ · Eastern White Pine**
☀️🌵 6-15' × 10-20' Zones 3-8
‘Pendula’ is a semi-dwarf cultivar with weeping, trailing branches that may touch the ground. Its form is variable depending upon pruning and training. Branches typically spread horizontally for a short distance before drooping. Foliage is green to blue-green.

④ ***Abies koreana* · Korean Fir**
☀️🌵 15-30' × 6-12' Zones 5-7, native to only four small areas in the mountains of South Korea, three on the mainland and one on Jeju Island. The total area of occupancy is only 4.6 square miles and the tree has been designated endangered. Its decline is thought to be the result of climate change. Best in well-drained, not heavy clay soils. Compact pyramidal to conical form, short needles are dark green and glossy above, with two silver stripes beneath. Upright purple cones are produced at a young age. A good choice for smaller yards.

⑤ ***Picea omorika* ‘Sky Trails’ · Serbian Spruce**
☀️ 15 - 25' cultivar of Serbian Spruce known for its blue-green color and upright weeping form. Silvery-white stomatal bands on the undersides of the leaves stand out. See **9**.

⑥ ***Picea pungens* ‘Bakeri’ · Blue Spruce**
☀️ Slow growing to only 12 - 20' Zones 2-8
This Blue Spruce cultivar originated as a seedling selected in the late 1920s in Massachusetts and was introduced to the nursery trade in 1933 by R. Ellery Baker, manager at Hiti Nurseries, Pomfret, Connecticut. It has silvery-blue needles which are longer than the typical spruce's and a strong pyramidal habit.. See **12**.



⑦ ***Picea pungens* ‘Hoopsii’ · Blue Spruce**
☀️ 30-50' × 15-20' Zones 2-7,
This cultivar is known for its silvery-icy blue needles. Densely pyramidal with pendulous magenta-purple female cones. Introduced in the 1950s, ‘Hoopsii’ is a Royal Horticultural Society Award of Garden Merit winner. See **12**.

⑧ ***Picea glauca* var. *densata* · Black Hills Spruce**
☀️ Generally 20 - 25'+ Zones 3 - 6
This is a variety of White Spruce that grows only in and around the Black Hills of South Dakota. It is the region's only native spruce. Many consider it a superior landscape tree to the species because of its denser habit and brighter green to blue-green needles. It is smaller than the species with a slower growth rate. Genrally grows at around 6000'. A good tree for birds and small mammals. The state tree of South Dakota.

⑨ ***Picea omorika* · Serbian Spruce**
☀️🌵 40' - 60' × 15 - 20' (in cultivation) Zones 4-7, native to only four small locations in the Drina River valley of the Balkans totaling less than 125 sq. miles leading to its designation as endangered. A narrow, pyramidal, spire-like tree with pendant branches that ascend at the tips. Needles are bright green above, lighter below with two distinct white stomatal lines. Seed cones emerge dark purple. Woody plantsman Michael Dirr has said that the Serbian Spruce is “one of the most graceful and beautiful spruces.”

⑩ ***Abies concolor* · White Fir**
☀️🌵 40 - 70' × 20 - 30' (in cultivation) Zones 3-7
Native to mountain slopes of the western U.S.
A narrow, conical tree whose upper branches are ascending and lower branches are declining. Flat blue-green needles with two pale stomatal lines below; waxy white bloom above and below. Barrel-shaped upright female cones are green to purple when young, maturing to brown, and disintegrating at maturity to release their seeds.

⑪ ***Picea engelmannii* · Engelmann Spruce**
☀️🌵 40 - 50' in cultivation, twice that in its native range of the mountains of western Canada and the U.S. Zones 3-5
Densely pyramidal and spire-like. Stiff, sharp blue-green needles, seed cones purple-brown and pendent, bark scaly. Named for physician and botanist George Engelmann (1809-1884). Used by numerous Native nations for material culture (cordage, building, etc.) and medicine.

⑫ ***Picea pungens* · Blue Spruce**
☀️ 30 - 60' × 10 - 20' (in cultivation, 100'+ in the wild), Zones 2-7, native to the Rocky Mountains from Idaho to New Mexico.
A favorite in landscping, especially the bluer forms, probably over-planted. Stiff, sharp needles, green to blue-green. Pendent 4” light brown cones with flexible scales. Its medicianl properties were put to good use by Native peoples for colds, rheumatism, and stomach problems. Though many of them have died over the years, *P. pungens* were the original trees planted in front of Lenin's mausoleum at the Kremlin in Moscow.

⑬ ***Tsuga canadensis* · Eastern Hemlock**
●🌵 40 - 70' × 25 - 30' (in cultivation), native from New Foundland to Wisconsin, south along the Appalachians to northern Georgia and Alabama.
Flat sprays of foliage, short, dark green needles, undersides have two white stomatal lines. Small, pendent tan-brown seed cones.
Hemlock woolly adelgid (HWA) is a tiny sap-sucking insect related to aphids that is a serious threat to the survival of native hemlocks in the wild.

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