Angelica

ABG Herb Study Group Presentation, April 2019, E. Bluemink

Family: Parsley (*Apiaceae*)
Genus: Angelica
Other Names: Wild celery, Holy Ghost, Root of the Holy Ghost, Aleut celery, masterwort, ground ash, *kvann* in Norwegian, Urisaq (*oo hee' sa ck)* in Alutiiq
Species: ~60 species
Hardiness: Described as USDA Zone 4-9 but native species range to the Canadian Arctic Archipelago and Siberia

Overview:

Angelica is a biennial or short-lived herbaceous perennial. It is hapaxanthic which means it flowers once in its life cycle and subsequently dies.

Angelica plants form a basal clump of large, three-sectioned, bright green, toothed or serrated leaflets. In the second or third year, the plant sends up a hollow, ribbed bloom stalk, usually 4 to 6 feet but sometimes up to 10 feet tall. The flowering parts are wrapped in a sheath which opens up with large umbels of tiny flowers. The flowers are followed by ribbed green seeds that turn brown. All parts of the plant are fragrant, and the flower nectar attracts bees. Roots are long and spindle-shaped and can be enormous in the first year (up to three pounds).

Cautions:

Angelica and other wild plants in the Parsley family have been confused with poisonous *Cicuta douglasii*, the western water hemlock, which almost always grows with its roots in standing water but can be found in Alaska growing near angelica. Even botanists have difficulty making positive identification. Generally unlike angelica, water hemlock roots have large transverse chambers that are separated by "shelves." People have also used the vein pattern of leaves to differentiate between the plants. Apparently neither technique is reliable. The seeds are a better way for making positive identification. *A. genuflexa*, *A. archangelica*, and *A. sylvestris* have winged seeds, unlike *Cicuta* seeds. Unfortunately, *A. lucida* does not have winged seeds. Also, *Cicuta* seeds are laterally flattened and angelica seeds are dorsally flattened.

One Kenai professor hypothesized years ago that poison hemlock and angelica are hybridizing in the wild, but no one has been able to prove it, and many believe it is impossible or unlikely. There is some evidence that angelica plants have the same chambering effect if they are growing in swampy areas. If cutting open a root that might be water hemlock, it's very important to clean the knife and avoid skin contact.

The name wild celery is used for other species including *Heracleum lanatum* (cow parsnip), which causes painful rashes or blisters.

It's easy to confuse young *A. lucida* with *Ligusticum scoticum* (beach lovage) which is harvested for fresh greens in spring and early summer in Alaska coastal communities.

Like many other plants, angelica contains furocoumarins that can cause an allergic reaction for some people. Handling or eating raw angelica plant parts may cause contact dermatitis.

Major Species:

European wild and cultivated species:

- *A. archangelica ssp. archangelica* – garden angelica, wild celery and Norwegian angelica
    - Grows wild in Scandinavian countries, Russia, Georgia, and the Himalayas, and cultivated in Europe, Korea, and India. Found high above treeline in Norway.
- *A. vossakvann* – historically cultivated in Norway for its sweet-tasting stalks
- *A. archangelica ssp. litoralis* – sea garden angelica
    - Grows along rocky seashores of Scandinavia and often considered inedible due to harsh taste
- *A. sylvestris* – wild angelica, woodland angelica
    - Considered an invasive weed in eastern Canada maritime provinces, now more common there than native angelica

Asian species:

- *A. gigas* – Korean Angelica, giant Angelica, purple parsnip and dang gui
    - From China, Japan and Korea; roots are used in traditional Chinese Medicine.
- Others include *A. sinensis* (China), *A. acutiloba* (Japan)
    - *A. sinensis* is known as dong quai or female ginseng

North American species

- *A. atropurpurea* – purplestem angelica, great angelica, American angelica, high angelica and masterwort.
    - Ranges from Canadian Arctic to southeastern United States and as far west as Iowa.
- *A. lucida* – seacoast angelica, wild celery, St. Paul putchki, strong putchki, or sea-watch.
    - Ranges along North America coastlines (including U.S. and Canadian Arctic), the Alaska Range, and eastern Siberia.
- *A. genuflexa* – kneeling angelica, bent-leaf angelica

- Ranges from Alaska Peninsula to northern California
- Less common than *A. lucida*

Culinary Uses:

Some sources describe angelica as one of the oldest cultivated vegetables in the north. It is now used mostly as a flavoring, condiment, or herbal supplement. Its flavor or fragrance has been described as similar to juniper berries or celery.

The Sami people ate peeled angelica stems raw or cooked, and sometimes with fish oil. They also used the young flowers to make a porridge with reindeer milk.

In Iceland, the Faroe Islands, and Norway, angelica was harvested from the wild and grown in gardens as a cooked vegetable or salad dish. Crushed roots were used in bread and the roots and stems were eaten or cooked, often with butter, sometimes with the leaves for flavoring. It is still eaten as a vegetable in Greenland and the Faroe Islands, where uses include cooking the stems and stalks with rhubarb and grilling young flowerheads or adding them to omelets.

The most common culinary use of angelica is the candied stalks decorating cakes, trifles, and holiday bread. Most of the angelica used for this purpose is grown in France. Making candied angelica is a multi-day process. Another way is to boil the stalks, peel off their outer fibers, and infuse in honey for a month.

The essential oils of the root and seeds are used in liqueurs, ice creams, and candies. Alcoholic beverages containing angelica include vermouth, Benedictine, Chartreuse, Strega, Galliano, gin, and angelica vodka (Iceland).

Leaves are added to cooked fruit dishes and preserves, soups, stews, fish and poultry. The ripe fruit is used in teas.

Medicinal/Folk Uses:

Angelica has been used as a "cure-all" around the world. Therapeutic actions are carminative (relieving flatulence), diaphoretic (sweat-inducing), diuretic (increased urination), expectorant (increases mucus), emmenagogue (stimulates blood flow in pelvic area), stimulant, stomachic (assists digestion), and tonic.

The leaves of *A. lucida* were brewed by Aleut people for a tonic and gathered by Alutiiq people for use in steam baths and treating skin ailments and rheumatism. Roots were used by Inupiat people to treat most illness and feelings of malaise. Eating a small piece of root daily was preventative medicine. Fumes of the burning root were inhaled by Siberian Eskimo people to treat seasickness. Dena'ina Athabascans considered

"Aleut celery" to be strong medicine and used the mashed and boiled (or soaked) root in poultices for infections, cuts, and aches.

Scandinavians used and exported angelica in ancient times. It became popular in Europe to prevent or treat contagious diseases and as a cure-all. It was believed to protect against evil spirits and witchcraft.

Legends abound for how it came to be called angelica. It blooms on the feast day of St. Michael the Archangel. The plague-fighting abilities of angelica were allegedly revealed in dreams to a medieval monk or herbalist by an angel, or St. Michael himself.

Monks introduced angelica to western France's Marais Poitevin and the town of Niort in the 12th century, for medicinal purposes including preventing the plague. In the 19th century, nuns in Niort began using angelica for culinary purposes. The municipality of Bessines has an angelica celebration every year.

Known as *dong quai* or woman's ginseng in Chinese medicine, the processed root is used to regulate menstruation and expel afterbirth.

Other Uses

Traditional: Angelica was planted in cemeteries in the North to keep away septic viruses in corpses and allegedly can still be seen growing in Faroese cemeteries. Saami people made a flute of the stem and their children made toys with it. The dried root was smoked or chewed by Norwegian peasants. Leaves and roots were common flavorings in herbal tobaccos.

Modern: The oils of angelica root and seed are used in various products including facial steams for oily skin, herbal baths, toothpaste, and perfumes.

Cultivation and Harvesting Notes:

Angelica can be grown from seed or root division. It prefers damp loamy soil and partial shade. Some sources say that seed will not remain viable unless stored at low temperatures. It's best to sow the seeds after they drop. Seeds need light to germinate so don't cover them with much if any soil. Saved seeds tend to have a low germination rate.

Scandinavian households traditionally kept angelica gardens. These were small enclosures along a south wall. Ash, charcoal, and/or seashells were used in spring to fertilize the plants and keep weeds away. Young plants with three leaves were ready to have their outermost and largest leaf harvested.

Roots are best harvested in the fall of the first year during dry weather. To dry angelica roots, cut in slices or pieces and dry for 3-4 days at 95F. Leaves and stalks are usually harvested in the spring of the second year.

Angelica is often described as a plant suitable for commercial production in northern climates, but the market is limited, according to the Ontario Ministry of Agriculture, Food and Rural Affairs (2012). Most of the commercial crop is used for essential oil.

Notes from Alaska gardeners:

S.M.

- Has an angelica plant but hasn't used it for anything. A friend puts angelica leaves in jam.

E.H. and G.H. (ABG Herb Garden)

- ABG has grown both *A. archangelica* and Korean angelica
- Angelica seems to take over space and squish its neighbors
- M. noticed *A. a.* didn't flower in the NW bed in summer 2018 but flowered and seeded in the NE and SE beds.
- Every year, seedlings are removed if they are encroaching; stalks and leaves have been trimmed back when they grow tall and wide.

D.H.

- Has grown angelica for years and has made tinctures with it in the past. It reseeds prolifically and she pulls it out by the "bushel-ful."

Main Sources:

- *Angelica: From Norwegian Mountains to the English Trifle,* by Ove Fossa, published in Wild Food – Proceedings of the Oxford Symposium on Food and Cookery 2004
- *Alaska's Wilderness Medicines: Healthful Plants of the Far North,* by Eleanor G. Viereck
- *Discovering Wild Plants, Alaska, Western Canada, the Northwest*, by Janice Schofield
- Wikipedia
- Herb Society of America's Quick Facts
- Kew Science, Plants of the World Online
- Conversations with Howie Brounstein and Marilyn Barker