

Jerusalem artichoke, an edible 'sunflower'

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Question: I came across a holiday recipe calling for sunchokes.

What can you tell me about this unusual vegetable? What are your recommended techniques for growing them?

Answer: The Jerusalem artichoke (*Helianthus tuberosus*) is a tuberous rooted perennial sunflower of the Aster family (Asteraceae). The plant's underground fist-sized, knobby tuber is characterized by its nutty and sweet flavor. The tuber is also called a sunchoke since its small flowers resemble those of its close relative the sunflower. The stems are stout, pubescent and grow 3 to 12 feet in height.

The plant bears many yellow flower heads in late August and September that are approximately 2 to 3 inches in diameter. The leaf blades are up to 9 inches long and 4 inches across. The thick, rough textured leaves have coarse hairs on the upper surface and fine pubescence underneath. They are opposite on the lower part of the plant and alternate on the upper part.

The Jerusalem artichoke is an American native through and through. Native Americans grew it for centuries as a staple food. The explorer Champlain took



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Jerusalem artichokes from North America to France in 1605. By the mid-1600s it was widely used as a human food and livestock feed there. In fact, Jerusalem artichokes are more favored as a food plant in Europe and China than in North America.

Today some of the types grown are, in fact, French cultivars, such as White and Red Fuseau. There are many varieties, but only a few heirlooms are extant and even they are hard to find. The cultivar that is most widely available is Stampede. It produces prolific clusters of white, fat tubers. Other varieties include Clearwater and Golden Nugget. Waldspinel, an Austrian cultivar, yields small, deep red fingerling type tubers. The name translates as "Gem of the Forest".

As a food, Jerusalem artichokes are quite nutritious, with measurable amounts of several essential minerals and vitamins. The sunchoke is 100 percent starchless. It stores its carbohydrates in the form of inulin rather than starch. Jerusalem



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The flower of Jerusalem artichokes, also known as sunchokes, resemble the closely related sunflower.

artichokes have almost no fat. Because of these facts, medical authorities strongly recommend it as a substitute for other carbohydrates.

They can be eaten raw or cooked, and are a sweeter, nuttier vegetable than potatoes. Sunchokes can be used in many of the same recipes as potatoes. Their crisp, white flesh is excellent raw, sliced into salads or served with a dip. They can also be baked, boiled, mashed or fried, and prepared in combination with other vegetables.

Jerusalem artichokes are easy to grow. Jerusalem artichokes grow in almost any type of soil that gets at least six hours of sunshine per day. They thrive best in a well-drained garden soil with high fertility, especially potassium.

Plant the tubers in the fall or early spring. Plant the individual tubers 2 to 3 inches deep spaced 24 to 30 inches apart. Since the plants can reach 6 feet in height, you should allow a couple of feet between rows. The Jerusalem artichoke needs water only during extremely dry periods. The plants themselves can survive long dry periods, but the tubers will not develop without a regular supply of water. The large, woody tops that resemble sunflowers should be cut off above the ground before harvesting, usually around September. Since freezing doesn't injure the Jerusalem artichokes, the tubers are best left in the ground and can be dug as needed. Also, a supply can be harvested and stored in plastic bags in the refrigerator.

Any tubers not harvested can be left to grow for next year's crop. They are free from disease, highly productive and completely frost hardy. They do have a tendency to spread so they must be cultivated with care or they may become troublesome. For this reason, it is best to give them an out-of-the-way, somewhat permanent planting location that is a reasonable distance from other garden vegetables or flowers. A good location may be along the garden edge where the tall sunchokes won't overshadow other plants. They are also useful to use as a colorful screen.

Mulching your Jerusalem artichokes is a

good idea both for weed control and soil moisture conservation. A yearly application of rich compost can help to maintain desirable fertility.

Growing Jerusalem artichokes in your home garden can be an interesting and rewarding experience. If you care for your plants properly, you can obtain enough sunchokes for your family from a relatively small area for many years.

Do you have a gardening question? Please email, call, or visit the Douglas County Master Gardener Plant Clinic at douglasmg@oregonstate.edu, 541-672-4461, or 1134 S.E. Douglas Ave., Roseburg.