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September 14, 2012

North America's nearly-forgotten native vegetable

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Gardeners looking for low-maintenance, perennial plants that can take the heat in the summer and the cold in the winter know that natives should be at the top of the list. This isn't commonly considered for the vegetable garden, though. In fact, few perennial vegetable crops are commonly grown in the Midwest. Outside of asparagus and rhubarb, most gardeners can't think of perennial vegetables. There is, however, a native, perennial vegetable sitting on the edge of obscurity in popular culinary culture: the Jerusalem artichoke.

Also known as sunchoke, the Jerusalem artichoke is a sunflower (*Helianthus tuberosus*). It is not as attractive as *Helianthus* species marketed as sunflowers, but the plant does produce 2-3 inch wide flowers in late summer, increasing its ornamental value. As the Latin name suggests, Jerusalem artichokes develop tubers, which are the edible portion of this plant. This plant is unrelated to the globe artichoke whose edible portion is the developing flower bud.

This tuberous growth contributes to the notorious spreading habit that may explain the limited cultivation of this plant. Many people who are familiar with this plant don't praise its value as a vegetable crop, but instead despise its ability to aggressively take over large spaces. Keep this in mind if you consider planting sunchoke and place them in an area that is appropriate for "naturalizing." Many reports indicate that once you've planted them, you'll have them forever.

Like Irish potatoes (also tubers), Jerusalem artichokes are planted as sections of cut up tubers. Whole artichokes should be cut into two ounce pieces with at least two "eyes" just prior to planting. Don't let the tubers dry out before planting as you would for Irish potatoes. Seed tubers are available by mail order in either fall or winter. Fall planting can be done, but soil temperatures need to be in the low 40s to prevent shoot growth before winter. Sunchoke may also be planted in spring, as soon as the soil can be worked, but sourcing the seed tubers at this time may be more difficult given the relatively low quantities available for purchase. Plants should be spaced at least one foot apart in rows at least two feet apart.



Jerusalem artichokes are adapted to most soil types, including heavy clay soils.

Photo Credit: The Ohio State University

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Plants can reach heights of ten to twelve feet throughout the season. Tuber development does not occur until very late in the season when plants sense cooler temperatures and begin to deposit energy into the underground stems. Harvest should be done after killing frosts wilt the top growth. Sunchokes that are harvested later into the cold season will be sweeter than those harvested earlier. Since the plant is a perennial and the tuber is not at threat of winter dessication, delay harvest until just prior to use. Replanting is typically not necessary because it is difficult to completely harvest a stand of tubers. Those that remain in the soil will produce next year's crop.

While the Jerusalem artichoke can grow well in most of North America and is adaptable to a broad range of soil types, including heavy clay, tuber formation will be best in loose, fertile soils that are well-drained.

There are many recipes for Jerusalem artichoke that are readily available, many of which simply substitute out Irish potatoes since they are quite similar. Of principle importance to diabetics is that the energy of a potato is stored as starch which is converted to glucose when consumed. In sunchokes, the energy is stored as inulin which is converted to fructose when consumed.

For more information on Jerusalem artichokes, visit <http://extension.org/search> or contact your local Extension office.