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Spinach Packs a Nutritional Punch

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Many of us leafy greens lovers grimace at the high price tag for that little bag of spinach when shopping for the week's groceries. Spinach is such a quick-maturing, easy plant to grow; there is really no reason not to sow a few rows in the vegetable garden.

Not only is spinach delicious to eat, raw or cooked, but it is highly nutritious. The tender, succulent leaves contain a number of vitamins like A, C, K and B as well as considerable amounts of iron and calcium. They are loaded with antioxidants such as lutein. Eat spinach when it is fresh and if cooked, do not overdo it. The nutrients diminish with time and prolonged cooking.

Some people notice a gritty feel in their mouths after chowing down on spinach salad, sometimes referred to as 'spinach tooth'. This is because the leaves of spinach contain oxalic acid. When chewed the oxalic acid combines with the calcium to form tiny calcium oxalate crystals, which are fairly insoluble in water or your saliva so sometimes one feels a slight grainy texture when eating fresh spinach. This is really only a problem if the diner is prone to kidney stones and they are usually told to avoid spinach and other high oxalic acid foods like rhubarb, beets, nuts, strawberries, chocolate and dried beans.

Spinach varieties vary in the shape, size and texture of the leaves. Smooth-leaved varieties are typically lighter green in color but easiest to wash. They also tend to grow more upright and reach maturity quicker. Savoyed and semi-savoyed selections have crinkly leaves and often slightly longer maturation dates. The puckery leaves take longer to wash as the soil tends to collect in them.

Some favorite smooth-leaved varieties include 'Space' and 'Flamingo'. 'Bloomsdale' is a long-time favorite savoy type spinach while 'Emperor' and 'Reflect' are two semi-savoyed varieties to try. 'Red Kitten' has medium green leaves with red veins. Pick when leaves are small for tasty and attractive baby greens.

Spinach usually matures in 27 to 55 days depending on the variety being grown. It is a cool season crop that can be planted fairly early in the spring. The directions on the packet often say plant when the soil is workable but it is often a better bet to plant when the soil temperature reaches 55 degrees F, which about the time the first leaves on the lilac appear.

For optimal production, a good site and good soil is imperative. Select a spot that receives at least 6 hours of sun each day with a well-drained soil. Lots of succulent green leaves is the goal when growing spinach so make

sure the soil has adequate amounts of nitrogen. This nutrient can be worked into the soil before planting either by using synthetic or natural organic sources. Natural organic sources include bloodmeal, cottonseed meal or alfalfa meal. Without a soil test, follow the directions on the package. Spinach also appreciates soils with moderate amounts of organic matter and a pH in the mid 6's.

Plant seeds ½-inch deep and 1 inch apart in rows 8 to 12 inches wide. As the seeds germinate and young plants grow, thin out plants so the leaves are barely touching. Use the thinnings in salads or stir fries. A couple of more sowings at 2-week intervals will usually have time to mature before the temperatures start to climb.

Spinach leaves can be harvested starting about 6 weeks after planting by pinching off the individual leaves. Use the older ones first leaving the central crown intact. As the days grow warmer, spinach plants will go to flower and set seed, a natural process referred to as bolting. Unless you have an open-pollinated spinach variety that you want to collect seed from, bolting signifies the end of the spring spinach harvest because the leaves get bitter. Some varieties are slower to bolt than others and this information will be listed in seed catalogs. Once you notice the central stalk elongating, cut the plants at soil level and harvest all the leaves that you can. Bumper crops can be blanched and frozen. A fall crop can be planted in early September.

The most annoying spinach pest is the spinach leaf miner. The adult fly lays eggs on the leaves. The eggs hatch and the larvae munch their way into the leaves where one can see their meandering trails or mines. Since they are inside the leaf, there is nothing one can spray on the insects to kill them. Sometimes preventative sprays to the foliage, before the eggs hatch, will offer some control but home gardeners often try to avoid pesticides. Attentive gardeners may be able to squish the larvae in the leaves when they first notice feeding damage or remove infested leaves. Since spinach does not require pollinators (unless you are collecting the seed), plants can be protected with row covers or grown under hoops draped with screening material to keep the flies out. Crop rotations are also useful for minimizing the damage done by this pest.

Grocery store spinach can't compare to the mouth-watering, crunchy, leaves picked fresh from the garden. Plus one can purchase a packet of spinach seeds for probably less than a package of spinach leaves. This year, give spinach a try.

For information on growing spinach or any other gardening query, call the UConn Home & Garden Education Center (toll-free) at (877) 486-6271, visit www.ladybug.uconn.edu, or get in touch with your local Cooperative Extension Center.