



**Superfoods:**

# kale and spinach

Deciding what to plant in a vegetable garden can easily be as difficult as deciding what to put in the grocery basket. Different varieties of vegetables have different qualities, including conditions needed for growth and nutritional value. Which qualities are most important to you? Seed availability, current trends? Taste preference? Beauty?

If planting the most healthy varieties is your goal, plan your garden from that perspective. You may have the most beautiful and thriving plant stands in the neighborhood, but if the garden is full of sweet corn, russet potatoes, and iceberg lettuce, you haven't maximized special nutrients over what you might buy in the store. Choose plants that will make gardening worth the reward in the kitchen and your health. When planning a new garden, consider a variety of bright colors. Colorful vegetables often have a higher amount of nutrients in their skin and tissue. Nutrients come in the form of vitamins, minerals, phytochemicals and fiber. All can support our immune system and provide healthy benefits, from cholesterol to eyesight. Colorful changes can be subtle; plant red onions instead of white, or colored potatoes instead of russets.

The “super vegetable” is a trendy term right now that suggests some veggies have more nutrients than others, and are just more popular. While it would be exciting to fill gardens with all the popular super-veggies found on the internet, here in Montana we are limited by growing conditions. Our plant selection must coincide with growing days (which are few), soils (which are varied) and moisture (which is slim). Any gardener worth their soil will know that those three limiting factors can really put a damper on exotic plant choices. But not all are exotic, and some are even well-suited to our Montana climate.

Kale (pictured on page 11) is possibly the most popular trending super-veggie right now. Pretty remarkable considering that a decade ago it was used as garnish on a salad bar. Nutritionally, it far exceeds what most other leafy greens can produce. In comparison, it's easy to see why kale is considered a super food.

- Iceberg lettuce offers just 15% of daily recommended vitamin K
- Romaine lettuce offers 94 % of vitamin K and 16% of vitamin A
- Kale provides 525% of vitamin K, 107% of vitamin C, and 47% of vitamin A, as well as high levels of copper, potassium, magnesium, protein and fiber.

([www.supertracker.usda.gov/default.aspx](http://www.supertracker.usda.gov/default.aspx))

Kale is a hardy plant, well-suited to our climate. When direct-seeding, plant shallow, making sure to keep seeds at ¼- to ½-inch depth, and keep them well-spaced. Kale is very capable of surviving spring frosts, it's recommended to plant five weeks before the last frost, or two weeks after. If harvesting during the fall, seed six to eight weeks before the first frost. Choosing frost dates in Montana can be as difficult as guessing winning lotto numbers. Visit [mtmastergardener.org/climate.html](http://mtmastergardener.org/climate.html) for data on frost periods, growing days and precipitation. Be cautious of the plant getting too warm during long days. During harvest, pick young tender leaves, or wait for more mature leaves to emerge – but anything bigger than the size of your hand can be stiff and unappetizing. For the plant to continue producing, avoid picking the center bud.

Spinach (pictured on page 10) has become another favorite as a leafy super-veggie – it certainly was for Popeye! Like kale, it has higher than average levels of nutrients, especially vitamin K (161% of daily recommended value). Spinach also contains folate, a parent to folic acid, and expectant mothers need this to promote fetal health. More importantly, it offers consistent levels of required minerals, and for many folks it's also more appetizing than kale.

Spinach is made for Montana weather in a few ways. It is a very hardy plant, resisting most Montana frosts, but the trick is in avoiding the long, hot days of summer. Too much heat and the plant will produce bracts and flowers. At that maturity, leaves tend to be far less appetizing. Planting dates are comparable to kale and other hardy species. In spring, get seeds in the ground six weeks before the last frost, but be sure to get them in the ground at least seven weeks before mid-summer. It's best to direct seed spinach, as it doesn't transplant well. Spinach is mostly tolerant when planted closely together, but aim for three to six-inch spacing. Planting depth should be between ½ - 1 inch deep. When harvesting spinach, take leaves as you need them and avoid overly stiff stems, as they can be unappetizing.

From salad bars to superfoods, kale and spinach can be consumed in salads, cooked dishes, and kale can even be baked into crunchy chips. You don't need to be a professional gardener to grow healthier vegetables, and species such as kale and spinach are easy because of their hardiness. Even the most novice gardener can keep a healthy garden made of vibrant and nutritious plants. Utilize composting to promote high organic matter in your garden, something that both of these plants require. Organic matter also contributes to good drainage in garden soil. Keep a consistent watering schedule to avoid over- and under-watering plants. It's very easy to "love" our plants to death, and over-watering can rush plants to an early demise. Lastly, don't be afraid to experiment with new species and varieties. There are many options available to expand healthy vegetable choices for our bodies and gardens. ■

**K**ale can have a bitter taste, and some say leaves are sweeter when they mature in cooler weather or endure a light frost. Some use a frost as a way to tenderize tough stalks before cooking. Frost or not, there are multiple preparation options to offset or highlight the taste of kale. For more information, see MSU Extension food fact sheets 'Kale' and 'Leafy Greens': <http://msuextension.org/publications/HomeHealthandFamily/EB0212.pdf>

