Beyond Just N-P-K

~Story and Photo by Robert Treadway

"What do you fertilize with and when?" is a question I hear often. My choices have changed some through the years but I prefer a fertilizer program that combines both organic and inorganic components. I don't follow a 100% organic path but I do believe that there are things that organic fertilizers and amendments add to the soil and plant health that synthetic fertilizers simply can't provide.

The common recommendation for fertilizing Louisiana irises is to apply a balanced granular synthetic fertilizer such as 8-8-8, 10-10,10, 13-13-13 or something similar in the spring and fall. While that works well, especially on a commercial level, it has never been my method of choice and one I seldom use. I never felt I could get adequate distribution to all of the garden by broadcasting granular fertilizers. Some areas would always get more than they needed and others would get less.

Time released fertilizers can feed plants for up to 6 months. This method has the same drawbacks for me as granular fertilizer in terms of distribution. It does work exceptionally well in containers but high heat and frequent watering may exhaust the nutrients sooner than expected.

I'm not in favor of adding copious amounts of phosphorus (the middle number in fertilizer analysis) and think that the amount in most balanced fertilizers is enough to meet the demands of the plants and provide adequate bloom. The old advice of applying super phosphate in the spring or fall may eventually cause more harm than good. In fact, most of the instances of problems with buildup of any one single fertilizer component in the soil usually comes back to high phosphorus levels. Soil tests are available through state extension services that can tell you exactly what the nutrient levels are in your soil. Most tests do not check nitrogen levels since a portion of nitrogen that isn't used is volatized into the atmosphere or lost to leaching so isn't static in the soil. A nitrogen test can be requested but there may be additional cost for it.

Water soluble fertilizers work extremely well on Louisiana iris and that is how I choose to apply synthetic fertilizers. A "volume specific" hose-end sprayer makes application of liquids easy. Simply drop in the amount of product suggested on the package and spray plants and soil. I usually use a sprayer that makes 6-gallons of product. While it may be time consuming, it is the quickest way to get any nutrients into the plant and I believe gives better distribution of product.

Louisiana irises are heavy feeders and I prefer a 20-20-20 formulation but it is often hard to find locally. All Purpose (24-8-16) and Boom Booster's (15-30-15) are the two most common formulations available and either work equally well. I do believe that Louisiana irises need more nitrogen so the All Purpose might be a better choice in the long run. There are other formulations with phosphorus levels up to 55 percent but I'd discourage using them very often.

I'm a firm believer in the use of organic materials. They can be mixed into the soil before planting and added as a side dressing throughout the growing seasons. Louisiana iris are ferocious feeders and will constantly be depleting the organic matter and available nutrients. Annual or semi-annual applications to the surface provide both the soil and the plant with nutrients to fill in any gaps possibly left when inorganic sources are exhausted. The most common organic material is composted manure. It has been used for centuries as a fertilizer and soil conditioner. Gardeners often think of using manure only on the front end before planting and don't use it after planting their irises. Annual surface applications work well and while manure isn't high in any fertilizer component (0.5-0.5-0.5) it does supply organic matter, bacteria and microorganisms to the soil that promote both soil and plant health.

Cotton seed meal (6-2-1) is a great addition whether it's added to the soil in the beginning or sprinkled on the top as side dressing. Do not spread it on too thickly. The plants won't mind a thick application but any dense layer will go through a

fermentation process and your nose will not appreciate the aroma! It can lower the pH but any change in pH will be minor under standard application practices.

Alfalfa pellets or alfalfa meal are good additions to the soil with a (3-1-2) analysis. Alfalfa in either form can be broadcasted but it may take several rains to get the pellets to melt and disappear into the soil. Triaconatol is a growth hormone found in alfalfa which can encourage a new flush of growth in some plants. If buying pellets look for compressed alfalfa on the bag. Currently, my favorite organic fertilizer is composted chicken manure (3-2-2). This pelletized material melts quickly into the surface of the beds. It has an earthy but not overly offensive smell. I apply it in the spring and fall and more often if the plants seem to be lagging behind in growth and foliage color isn't as green as I'd like it to be. It isn't "hot" and I don't know if you could over use it or not. I wouldn't pile it up on newly planted irises but generous applications have shown no ill effects here on established plants. A relative new addition to my fertilizer arsenal is blood meal. It isn't a balanced fertilizer (12-0-0) but is a good form of slow release nitrogen. I've been using it on my seedlings this summer and it has kept them green and growing right through the intense heat. Foliage turns a distinct blue green color when the nitrogen in the blood meal reaches the plant.

Don't forget to apply or reapply compost and mulch. Both are great at keeping plants and soil healthy and happy.

The thing to remember about all of the organic sources is that they aren't a quick fix. Don't expect to apply any of them today and see results tomorrow. Often they are used to unlock nutrients and micronutrients in your soil that the plants can't use in whatever form they are in. Organic materials have to be consumed by soil bacteria and converted to a chemical the plant can use. Alfalfa and blood meal do seem to get a quicker response than the other organic sources. For a quick fix fish emulsion is an option but one I usually reserve for seedlings or something that needs a little extra push.

Careful observation is an important gardening tool. If your irises are less green and shorter than usual, there is a good chance that fertilizer (especially nitrogen) may help get them back on the right track. Additional fertilizer during the summer along with more frequent watering will keep the irises growing in hot conditions. I encourage you to experiment and try new and different things on your irises. It is highly doubtful that you will be rewarded with anything other than more vigorous growth and abundant blooms.