We’ve all heard of Old Wives Tales and some of us may even practice them. Admit it! But do they have real science behind them? Horticulture is no exception and its’ lore has been passed down from generation to generation. Yes, I admit it! I do in fact practice those family lore!

Let’s just see what scientific basis we can find in just a few of these Old Wife’s Tales!

**Bury a banana skin under each rose when you plant it. Sound like the fish story… a fish with each kernel of corn.** Well they are both correct. Fish and bananas have good amounts of calcium, magnesium, sulfur and phosphorus, all-important nutrients for your rose bush. Here is the BUT! They have to decompose to release those nutrients.

Here’s another garden tidbit! **Let the pumpkin tendrils sip milk from a saucer!** Half-truth? Milk has lots of calcium but does the pumpkin’s tendrils have the ability to feed the calcium through the tissue (foliar feed).

There has to be a better way to get these nutrients into the plant. We all know that plants can readily take up nutrients if they are in a soluble form, through both the leaf tissue and root hairs. Bananas and fish do not have their nutrients in a soluble form and will take time to release. That is the key! Availability! The nutrients must be in a soluble form.

Another example! When you spread a granular product on your turf or put it into your pots, the majority of those ingredients are not in a soluble form. It takes time for those nutrients to weather and become available. Some nutrients do it faster than others. An example is phosphates. They come in the form of totally unavailable phosphate rock or in pure food grade phosphoric acid, which is instantaneously absorbed by the plant. Calcium sources run the same gamut - Calcium phosphate is completely unavailable. Calcium **chelates** in the form of citrates and glucoheptonates are readily available to all plants. The word “chelate” comes from the Greek word “chele”, meaning “claw”! This claw action takes place when a metal ion is drawn into a cage-like molecule.

Just think of a bar of iron. Yes 100% iron but not in a form that the plant can use. Imagine chemically reacting the solid iron with a chelating agent and BINGO you have a liquid Iron chelate. The BINGO is a little more complicated. Through chemistry, you are changing the physical property of a solid material into a liquid form. It the same as taking two gases, Oxygen and Hydrogen when combined form a liquid … H₂O! There are many different types of chelates on the market, some more or less suited for your special needs. They can contain any where from 6 to 10% Iron, 8% Calcium, 3 – 5% Manganese, etc. **X-Xtra Iron** and **Iron Max** are good examples. These heavy-duty liquids weigh in at 11 ½ lbs to a gallon.

Let’s return to our pumpkin story. We don’t know if the tendrils will in fact absorb that calcium, but we certainly know that all plants absorb nutrients through their leaf tissue. Turf grass is no exception. An afternoon spray of a good chelated Iron will show results in 24 hours. All other minors such as Ca, Mn, Mg, Cu, Zn, B, Mo are readily taken in through the leaf tissue. Your soil can be a big hazard to your micronutrients. So can all of those phosphate fertilizers that you have been applying. **The big advantage of foliar feeding micronutrients is that problematic soils, too high or too low a pH will not interfere with foliar feeding.**

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