

Up, down and all around

SOMETIMES POPULAR PHRASES never really disappear. They just go dormant and then come back again. We might refer to them as being recycled, but I prefer using the word “dormant” since this is a garden column.

The phrase “up, down and all around” was commonly used in garden training sessions in the 1970s and 1980s, and of course it refers to the three numbers on every fertilizer box or bag. The first number is for nitrogen (N), which promotes top growth. The second number is for phosphate (P), which promotes root growth. And the third number is for potassium (K), which is to promote the all-around vigor of the plant. I thought this phrase had gone dormant until several months ago when I saw it referred to in an article in the Salem Hardy Plant Society newsletter.

While gardening practices have not changed as rapidly as other technologies — such as computers, cell phones, instant messaging, and voice commands — technology has impacted the way we garden. University scientists are constantly researching the way plants grow, and their findings frequently impact many of our gardening practices.

Think for a moment about the fertilizer we use and how and when we apply it, the compost we add to our garden, or the soil mixes we use in our containers. Think of the sprays we use, or perhaps don't use. Think of the diversity of the plants that we grow. Think of how all of these have evolved during the past few decades.

I have been a lifelong gardener, and I am always searching for new information to improve my garden. Not only do I read new research publications, especially those from reputable local sources, but I also visit with other gardeners to learn what practices they are using. Some of those might be applicable to my garden as well.

I would be remiss not to mention that many of my longtime gardening practices might be based on myths. They still are in my gardening database, because that is

how I learned to garden.

Is added phosphorus needed?

At a recent meeting of the Portland Rose Society, the guest speaker was a representative of the society's custom fertilizer manufacturer. They use a formula of 15-10-10. He talked about why the NPK numbers are specific for different plants.

My understanding is that area soils already contain sufficient phosphorus, and we may not need to add more. I asked the speaker about that and his reply was that the issue is controversial and there was not a clear answer.

An accurate response is very dependent on the local area in which you are gardening. I pondered his reply and realized that the controversy may be more related to the effect of the phosphorus on our environment than it is to any specific plant.

Several years ago, in a conversation with Harry Landers — who at that time was the curator of the Washington Park International Rose Test Gardens, in Portland, Oregon — I commented on how beautiful the garden looked. I asked him what kind of fertilizer he was using. His response surprised me. For the past few years, they had been using a fertilizer with nitrogen only.

Harry explained that every two years, he had the soil tested from several different areas in the park. Each test indicated that the phosphorus level was extremely high. Thus, he decided to eliminate the phosphate in the fertilizer that they use. Looking around the garden on that beautiful June day, it was hard to dispute his decision.

The proof is in the soil test

The information that Harry had given me seemed to be the opposite of everything that I had learned. When I discussed this issue with others, one of the constant responses was, “Have you had your soil tested?” My answer was no, I had not.

So, last spring, I had a conversation with Brian Pickett, an arborist representative for Bartlett Tree Experts in Clackamas,



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Oregon, and had my garden soil tested. For the past several years, I have been using fertilizer products with no phosphorus — either blood meal (13-0-0) or feather meal (12-0-0) — so I was certain that the phosphorus level in my soil would be low.

As Brian took two soil samples from my garden, I was surprised at how deep he went to get the soil for the test. I asked about this and he said that to have a test on the top few inches would not have given an accurate reading for our purposes, since the shrubs and trees have roots that are growing well below this top layer.

Several weeks later, I received the results, and my phosphorus level was a shock to me. It was very high — almost off the chart. Brian said that he has done many soil tests and he has never had a phosphorus deficiency from soils our area.

With this new information, I am rethinking the fertilizer that I use in my garden. I continue to search for information on this topic because the research is ongoing. The phosphorus topic continues to intrigue me. It makes me wonder how many garden myths, are simply just that: myths.

The opportunity for retailers

Most garden centers sell many types of fertilizers, including ones with phosphorus. All types offer an excellent opportunity for staff members to offer educational sessions that explain why certain fertilizers work well for specific plants.

This would expand not only the knowledge base of gardeners, but also the sales opportunity for the garden center. ☺ ➤