



While talking with a friend recently, the topic of “organic” came up. He said he did not have a terribly high opinion of it; that it had become more complicated than worthwhile. Although I did not agree with him, this conversation made me think of how that one word has at least three different uses: organic gardening, soil organic matter, and organic chemistry.

The first meaning is one that those of us who garden might recognize, and that my friend was rejecting. This is Organic Horticulture or Agriculture, organic gardening. It was not until the mid-1990s that the US Department of Agriculture promulgated guidelines for organic agriculture and its many components. Within these regulations, it is clear what is permissible to use. Organic practice consists of far more than avoiding conventional pesticides and fertilizers; rather it seeks to create a healthy ecosystem. It looks at horticulture as a suite of interactions among the components of soil: living, like bacteria and fungi, and inert clay. All of these then interact with creatures growing in the soil, like plants and insects. Finally, we all interact. In principle, when this happens in a balanced environment, all beings involved are healthier. This holistic network of life is the hopeful core of the organic movement.

The next use of this word is soil organic matter, also known as “compost.” This stuff is essential to organic horticulture, but they are not the same. Organic matter is what is left behind in the soil after something, plant or animal has died and decomposed. When looking at this residue, it is obvious that soil organic matter is far removed from its origins. It appears to be a rich soil, but is rather a soil amendment. It is nutrient dense, hence plants benefit from it as a slow release fertilizer. Because it has a rather spongy character, it can both hold moisture and permit the excess to drain away – another advantage for plants, which need ready access to water, yet will die in muddy and airless soils. Organic matter benefits the gardener by making soil more workable. Anyone who has struggled to dig in Mojave soils knows how much they need improvement. Curiously, soil organic matter may not be “organic”. If it were produced from colored paper, for instance, or if its components had recently been treated with pesticides, then it would not meet the USDA standard.

The third use of this word is in “organic chemistry.” This discipline is far removed from organic horticulture. Originally, it studied compounds found exclusively in living systems, but it expanded so it now works with the structure, properties and reactions of chemicals that contain

the element carbon. All life on earth is carbon based (proteins and DNA, for instance), but organic chemists can create brand-new complex substances, from antibiotics to pesticides to enzymes.

These are only three uses of “organic.” It is easy to see how this word can be confusing, depending on its context, but it is a good idea to know exactly what it is supposed to mean.

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