

Organics versus Chemicals

In Caring for Plants & Ecosystems

By guest contributor
Steve Houser

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Are you pro organic or pro chemical? Being an Arborist, Naturalist and Gardener, the standard answer is that I am "pro common sense and pro research". Although the media often portray organics as good and chemicals (or synthetics) as bad, the underlying facts are seldom exposed, leaving the public without a clear understanding of the issue. To tout one or the other as a panacea for all plant and ecosystem related problems ignores the sound research behind both approaches. The answer lies in current research and finding a balanced, common sense way to approach problem resolution. Just to be clear, the term "plant" includes trees as well.

Which method is best? If the problem is not a great threat to the future health or value of the plant, do not use either method. If current research shows that natural defenses exist to resolve the problem to an acceptable degree, take the holistic approach and leave it to "Mother Nature". However, Mother Nature and the organic approach cannot solve all plant or ecosystem problems (in part) because the inner-urban environment of today does not represent the natural world of the past. Poor air and water quality, as well as invasive, non-native plants, pathogens and pests (such as Chinese privet invading our natural areas or Oak Wilt, a deadly pathogen) prevent Mother Nature from functioning normally in our urban areas. As a result, there is no sound research that provides organic answers to stop the spread of Chinese Privet or effectively treat Oak Wilt symptoms as well as other difficult problems in our communities. Mother Nature cannot solve all inner urban problems on her own. The choice in many cases such as Oak Wilt is to stay organic and lose trees or consider chemical options.

If you choose to stick with organic methods, it is wise to use only products and techniques that are proven by scientific research regarding the full effects to the entire environment (air, water, soil, animals and humans). Unfortunately, many believe that "organic" means it is safe for humans and the environment, which is not always the case. The misuse of materials (organic or chemical) and a lack of research regarding their proper usage (especially in mixing the materials) can lead to problems in the biological balance of nature. It is impractical to think that all problems can be resolved with either approach without any negative consequences. It is also unreasonable to promote an organic material, chemical or "mixture" without solid research.

Using organic materials to improve the soil or resolve plant problems is not new science. Existing research quantifies the benefits of adding compost or humus to the soil as a way to stimulate biological activity, which improves soil and plant health. However, the full effect of multiple applications containing many materials (organic and sometimes chemical) throughout the seasons, year after year, is not always well researched or clear. As a result, the answer is to have a balanced approach to problems that can adapt to current research plus minimize the impact to our ecosystems as well as our health. The best approach is: 1) Let nature solve it 2) Use organic products if sound research exists 3) Use chemicals as a last resort for only major problems. What constitutes a "major problem" requires a value judgment by each individual and may vary from person to person as a result.

Does anyone fully understand our urban ecosystems and how they interact as well as function or should function in the future to reach our regional goals of sustainability? The answer is no! There are experts in wildlife, plants, soils, water and many others. However, I do not recall hearing of any urban ecosystem expert that claims to fully understand how our inner city ecosystems should function in relation to each other. As a result, how can the organic or chemical crowd claim that one or the other is the only answer to resolve all plant as well as ecosystem related problems? If one is better for a problem, prove it with sound research or be responsible and wait for the facts before using or recommending either one. Unfortunately, a pure organic or chemical approach will not provide all the answers to the existing problems we currently face in the urban environment. A balanced, common sense and fact based approach is required to reach ecological sustainability in the future.

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“FIELD NOTES IN FOCUS”



Bluebird



Titmouse

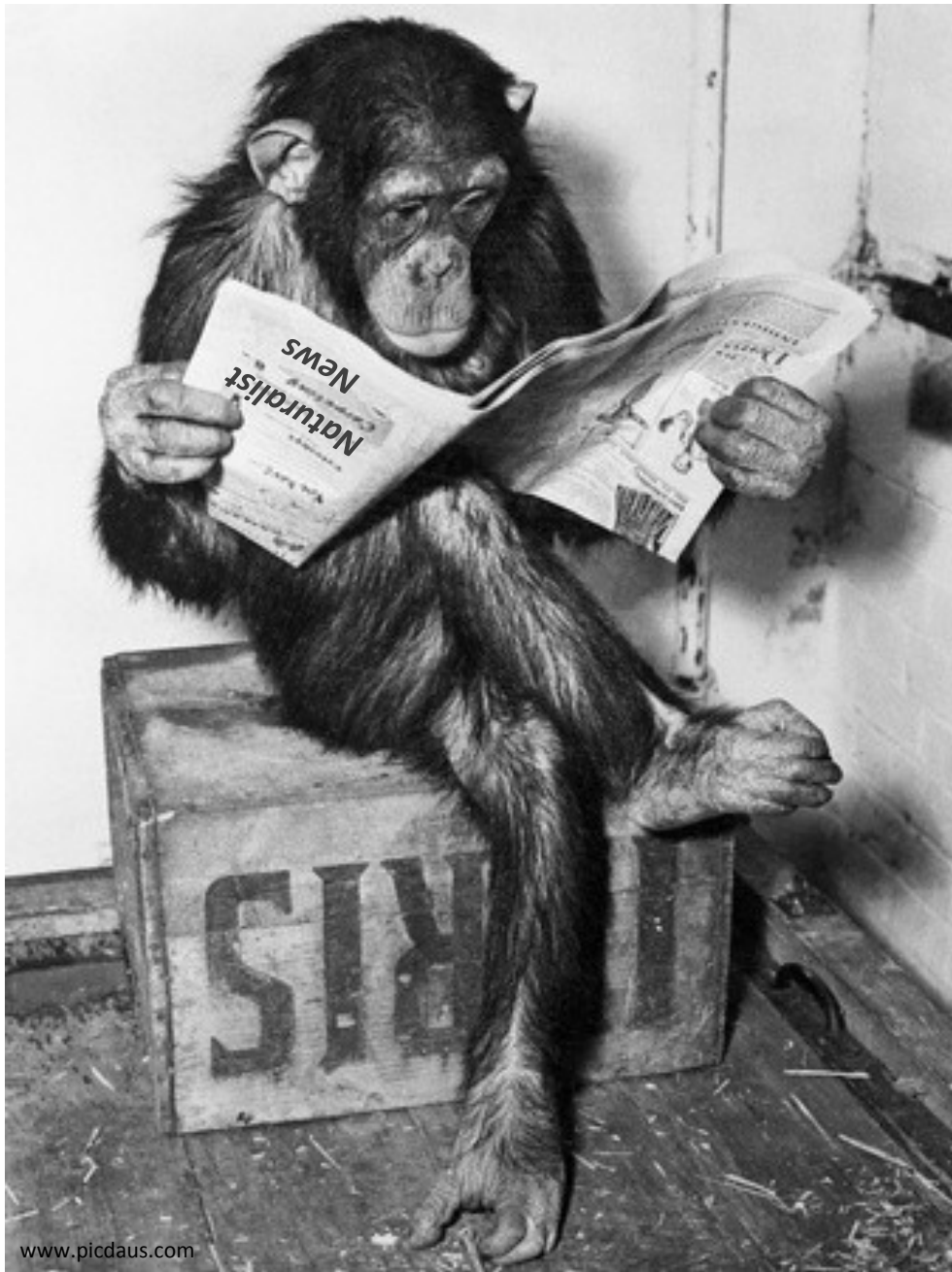
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**Next meeting April 17, 2014—Will McClatchey and
Karen Hall: New Research at BRIT**

**Meeting May 15, 2014—Jim Bednarz: Behavior of Red-
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**Location: Joseph A. Carroll Bldg., 401 W. Hickory Street,
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