A BOOK REVIEW  
By Lois Rose, MGV1998

How Plants Work: The science behind the amazing things plants do
by Linda Chalker-Scott
Timber Press, Portland; 2015
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This little book is packed to the page top with information that we frequently ponder as Master Gardeners, and as gardeners. It is a small encyclopedia of interesting and important information, explained in an easy-to-read style. For example, plants telling time, taking in nutrients, fall changes in color, leaf structure and function are all laid bare. This is the fishing pole to the hungry questioner instead of the fish.

A useful and unique feature of the book is the page on the left side giving a brief summary of a concept, something that has been researched, while the main text of the book continues on the right page.

One such page is called “Sheet mulches.” Chalker-Scott first describes “The Practice” of placing cardboard or newspaper over soil or weeds with something on top of that in layers, what has been called lasagna gardening. Next is “The Supposed Benefits” including killing weeds, preventing sprouting of weed seeds. Next comes “How Plants Respond.” Here is a mostly negative critique about cardboard, which does not break down quickly and leaves the soil underneath without oxygen and water. Roots move upward to grab oxygen, and worms and other organisms move closer to the surface. Paper-based sheet mulches present a similar problem, with water running off of them and creating a parched situation underneath. Her solution is to use chunky coarse organic mulches instead.

I attended her lecture about using very thick mulches at the previous Ohio State Master Gardener Conference near Toledo. I was gob-smacked by her research, which is what her recommendations are based on, and by her recommendations themselves, many of which are not common in the MG community. This attention to what is real in terms of scientific, research-based information, is one of the things that makes this book outstanding.

There are numerous photos illustrating many of the topics, and there is a sense of humor throughout. Linda Chalker-Scott, Ph.D., is associate professor and extension urban horticulturist at Washington State University. At WSU, she is co-chair of the Garden Team and produces science-based extension publications for home gardeners. A certified arborist, she also has impressive blog credentials as one of the hosts of The Garden Professors, with informative articles online, reporting on current research trials and up-to-date items.