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Review of *A Garden of Marvels: How We Discovered that Flowers Have Sex, Leaves Eat Air, and Other Secrets of Plants*, by Ruth Kassinger

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A Garden of Marvels: How We Discovered that Flowers Have Sex, Leaves Eat Air, and Other Secrets of Plants. By Ruth Kassinger. New York: Harper Collins, 2014. xviii + 395 pp. Illustrations, references, index. $19.58 hardcover; $14.23 paper.

Given how vitally important plants are to our very existence, it continually amazes me how cavalierly most humans treat them and how little we really know about them and how they work. Most of us have only vague notions remembered, if at all, from our past education about the development of plants as they grow, interact with one another and their environments, and reproduce.

I took college introductory biology and botany courses. Before writing this review, I looked over those courses' textbooks. The biology course text does not tell how biologists came to their understanding of how plants worked. The botany text does not either, but does describe the lives of plants in such detail that the mind (at least my mind) boggles! My course profes-

sor, Dr. Arthur Shively, did force students to commit to memory the complete classification of fifty different species of trees found on the campus. I still remember the names of many of those today, more than fifty years later. Thanks, professor!

Until I read Kassinger's book I clearly did not have the historical perspective necessary to appreciate the incredible lives of plants and how botanists have come to their present understandings of same. Kassinger, a gardener by avocation, cut out most of the jargon, defined terms that she does use, and wrote simple and compelling tales of the histories of discoveries about the various parts of plants and how those parts work together for the benefit of the plant and, ultimately, for our benefit.

The author starts out by telling readers that she began doing research on plants after becoming a plant "murderer." She had a kumquat tree that she grew successfully in her home for more than six years. Even though she did everything she could to nurture it, the tree died. This story is similar to many tales of woe from the public that I have heard recounted over the years on the popular Nebraska Public Television show *Backyard Farmer*. She did everything as recommended and death still ensued. Why? Why did other plants thrive and this one die? She decided to learn about the science of plants and ran into the same problems that I had in that botany course decades ago. The books were too bloody complex by half. So intrepid soul that she is, she started research on all things plant and on how plants live and grow. Kassinger traveled widely during her research, going as far afield as a citrus nursery in Florida, the Land Institute in Kansas, and the University of California Riverside. What she came up with is a book that any gardener or other interested person with a modest background in plant biology can understand. It covers all plants, so even the "rots and spots" guys on *Backyard Farmer* and their fans will find something of interest here.

Kassinger's book is great fun. So much so that I decided to read it a second time. One can't give an author a much greater compliment than that. I especially liked her tale of her pursuit of a citrus cocktail tree for her conservatory. For the uninitiated, like me, this tree is a concoction of various types of citrus grafted onto a hardy rootstock species, in this case a Hamlin orange. No local nurseries or garden centers near her home carried or grew such trees. She called places in Florida and eventually was led to a nursery there where the owner agreed to start one for her. All fine and good, but after having the grafts take and the tree ready for delivery she discovered that she couldn't legally take it out of Florida. She had the tree but couldn't take it home. The solution to this problem was to leave it in the care of her mother, who lives in Fort Meyers, Florida, and to visit it and her from time to time.

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