The Bio-Integrated Farm: A Revolutionary Permaculture-Based System Using Greenhouses, Ponds, Compost Piles, Aquaponics, Chickens, And More
The Bio-Integrated Farm is a twenty-first-century manual for managing nature’s resources. This groundbreaking book brings system farming and permaculture to a whole new level. Author Shawn Jadrnicek presents new insights into permaculture, moving beyond the philosophical foundation to practical advanced designs based on a functional analysis. Holding his designs to a higher standard, Jadrnicek’s components serve at least seven functions (classical permaculture theory only seeks at least two functions). With every additional function a component performs, the design becomes more advanced and saves more energy. A bio-integrated greenhouse, for example, doesn’t just extend the season for growing vegetables; it also serves as a rainwater collector, a pond site, an aquaponics system, and a heat generator. Jadrnicek’s prevalent theme is using water to do the work. Although applicable in many climates, his designs are particularly important for areas coping with water scarcity. Jadrnicek focuses on his experience as farm manager at the Clemson University Student Organic Farm and at his residence in the foothills of the Blue Ridge Mountains. These locations lie at the cooler northern edge of a humid subtropical climate that extends west to the middle of Texas and north along the coast to New Jersey. He has created permaculture patterns ranging from raising transplants and field design to freshwater prawn production and composting. These patterns have simplified the operation of the 125-share CSA farm while reducing reliance on outside resources. In less time than it takes to mow his two-acre homestead, Jadrnicek is building a you-pick fruit farm using permaculture patterns. His landscape requires only the labor of harvesting, and the only outside input he buys is a small amount of chicken feed. By carefully engaging the free forces of nature—water, wind, sunlight, convection, gravity, and decomposition—Jadrnicek creates sustenance without maintenance and transforms waste into valuable farm resources. The Bio-Integrated Farm offers in-depth information about designing and building a wide range of bio-integrated projects including reflecting ponds, water-storage ponds, multipurpose basins, greenhouses, compost heat extraction, pastured chicken systems, aquaculture, hydroponics, hydronic heating, water filtration and aeration, cover cropping, and innovative rainwater-harvesting systems that supply water for drip irrigation and flushing toilets.

**Book Information**

Paperback: 384 pages  
Publisher: Chelsea Green Publishing (March 3, 2016)  
Language: English  
ISBN-10: 1603585885
This is an interesting book. It is packed full of clever ideas, but you better love plastic. It's everywhere. Also, you better love plumbing, pumps, and digging trenches. It spends much of its efforts giving the reader some real-world examples and advice. It clearly doesn't expect the reader to implement all or even most of the ideas, but I am confident that there are a few things just about anybody could apply to their situation, weather you are a suburbanite, urbanite, or a rural dweller.

I was surprised by the extensiveness of instruction in chicken and pond fish rearing. I think this book would be a decent chicken primer, though not as thorough as Harvey Ussery's book. But one must realize that most of the advice and the schemes in this book are all very site specific. For example, his chicken coop wouldn't be nearly large enough in most of this country where weather gets cold enough a few or more weeks per year that chickens must be protected in a shelter. Also, I was surprised that he feels that bleach washing eggs is a given. From my perspective washing eggs is needed because of a defect in the management, usually putting too many chickens in too small of a coop or too few of roost boxes or not changing the bedding frequently enough.

The book is very upbeat, enthusiastic, and friendly while not condescending, arrogant and self-congratualtory. When there is insufficient information, the reader is at least pointed in the right direction via a reference, but usually there is enough information to actually accomplish many of the projects in the book. Like all Chelsea Green books it is well produced, has an index, and is generally attractive. Why not five stars? Because, like many books of its kind, it is mis-titled in my opinion.

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The Complete Compost Gardening Guide: Banner batches, grow heaps, comforter compost, and other amazing techniques for saving time and money, and ... most flavorful, nutritious vegetables ever. Frank Martin: A Bio-Bibliography (Bio-Bibliographies in Music)


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Integrated Assessment of Scale Impacts of Watershed Intervention: Assessing Hydrogeological and Bio-physical Influences on Livelihoods

How to Build Floating Docks and Decks For Ponds Step by Step: Step by step guide with images and plans to build a floating dock pier and a farm pond deck.