Restoration Agriculture

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Around the globe most people get their calories from annual agriculture - plants that grow fast for one season, produce lots of seeds, then die. Every single human society that has relied on annual crops for staple foods has collapsed. Restoration Agriculture explains how we can have all of the benefits of natural, perennial ecosystems and create agricultural systems that imitate nature in form and function while still providing for our food, building, fuel and many other needs - in your own backyard, farm or ranch. This book, based on real-world practices, presents an alternative to the agriculture system of eradication and offers exciting hope for our future.

Restoration Agriculture Details

Date	:	Published August 16th 2013 by Acres USA (first published January 1st 2013)
ISBN	:	9781601730350
Author	:	Mark Shepard
Format	:	Paperback 313 pages
Genre	:	Nonfiction, Science, Agriculture, Gardening, Environment

From Reader Review Restoration Agriculture for online ebook

Grant says

Mark Shepard is a talented public speaker, with a body of work growing in the soil that may be unmatched. Given his tremendous accomplishments, I would hope a much better editorial staff had been utilized before publishing this book.

The core idea of this book - that a perennial polyculture agricultural system is both an attainable and realistic ideal - is grand. This concept is best conveyed in a one hour keynote presentation, this book falls short as both a how-to manual and a clear explanation of the end goal.

Alas, the content is only better presented in Ben Falk's The Resilient Farm and Homestead.The Resilient Homestead: Innovative Permaculture Systems for the Home and Farm--Based on Research and Development in Earthworks, Perennial Crops, Cold-Climate Rice Production, and Nutrient-Dense Food/Medicine from the Whole Systems Research Farm

If you're open to the idea of changing agriculture as we know it, give it a read, but don't judge the message upon editorial skill.

Danni says

Every year there are more and more books published about Permaculture. Some of these new books show lovely example sites and explain a hundred inspiring techniques for using Permaculture. It's getting harder to tell which books are worth your time to read, though. Restoration Agriculture stands out in this ever increasingly crowded topic area. I've yet to read such a easy and exciting treatise that really addresses the "Why" of Permaculture like Restoration Agriculture.

Readers are treated to chapters that clearly outline what brought the author to Permaculture and how he uses it on his farm and in consulting practice. In every chapter he shows respect and admiration for his conventional neighbors and the dying agricultural communities throughout the country. This book is really meant for those folks. It is meant for the countless farmers looking for real ways to feed the world and survive in the communities they love. I adored reading his chapters laying out how conventional agriculture "feeds" the world and how restoration agriculture can nourish the wold.

If you are looking for a Permaculture book to really kick you into high gear for the new year, this is it! I don't think I've read a nonfiction book so fast and loved so much of it before!

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Adam says

Mark Shepard's presentation at 2013's MOSES organic farming conference was among the most influential, rousing, and revelatory moments of the past few years of my life. He said nothing I didn't already know, but he put all the pieces together in a way that seemed new and showed me that the oft-discussed but rarely practiced ideal of a perennial polyculture could feed people really, really well, and restore ecosystem functions, and be a phenomenally successful restoration ecology project. A farm could heal the land and create nutritious diets in a totally ethical way at the same time, with little compromise.

It was everything I had ever wanted, and it was finally a real option on the table. I am presently about to graduate, I have no debt, and I benefit from an unusually strong support network. I have the opportunity to make Mark's dream my reality. It was also clear that every goal I planned to attend graduate school to accomplish would be simple to do on the farm: fulfilling curiosity by reading academic papers and books, but also by looking and watching and taking pictures: learning to understand ecology by doing it, trying to put the complex system back together and tune it up.

Mark's book, in consequence, was a rather large disappointment. I'd imagined that the presentation was sort of a teaser for the book, but having read it, it's clear Mark is a much better speaker than a writer, and more importantly that his book is nothing like the practical how-to manual he made it out to be. It's essentially an extended explanation of the system and an advertisement for it, with only the most cursory advice for an aspiring practitioner (though of course there were plenty of interesting ideas I took away - I'll get to that in a bit).

Restoration Agriculture is sorely in need of an editor, or a flock of them (in leader-follower mob grazing rotation, perhaps!). It is rife with typos, embarrassing things like "it's" instead of "its" or "compliment" instead of "complement." The prose is invariably clumsy and unpleasant to read. You can see Mark typing it out in Word or something - it doesn't feel polished from that point at all.

Worst of all, he just butchers native bee taxonomy. He implies that all N. American natives are Megachilids, while all Eurasian natives are Apids - ignoring the other families entirely. He goes on to speculate that there is "something about North America" that discourages sociality in bees - dismissing the achievements of all bumblebees and a few Halictids who have been doing just fine at social living here for millions of years.

Mark's treatment of scholarship is upsetting. He constantly throws out claims (most of which I'm sure are true and backed by at least a fair amount of research, since most of it is stuff I'm familiar with from more responsible sources) with clauses like "scientists claim" or "there is reason to believe." He essentially doesn't cite anyone but Paul Martin, and that case feels more like a recommendation than a citation. This betrays not only a lack of respect for the scientists whose work he is taking advantage of, but also a relatively ideological and thin understanding of the material in general.

This is symptomatic of Mark's conflicted relationship with science and research overall. His claims are based

in a complex and rich body of work. At many points throughout the book he bemoans the lack of research and development on restoration agriculture systems. This is right - part of the reason perennial polyculture systems are perceived as financially unfeasible is because none of the efficiency-increasing equipment for them has been designed yet. But often he seems to scorn "science" and "scientific theories" and in his presentation he actively encouraged the audience to go plant trees instead of going into research.

This hits close to home for me, of course, because right now I'm essentially trying to decide between going into doing restoration agriculture or being paid to research it (and of course practicing it on the side). Mark makes two things clear that definitely support the latter option: farmers, even those with low input costs, diverse crops, and high-value products, don't make enough money to support themselves, so there's no shame or failure in seeking off-farm work to support yourself; and research is desperately needed, and is still so rare that any new entries would be extremely helpful in guiding new practitioners. Yet in his presentation and speaking to him in person, he constantly heckled (it seemed like) me to not wait, to plant the trees now! Very stressful, confusing, annoying.

While it's clear that literally anything is better than an industrial cornfield (even parking lots are accompanied by drainage ponds, and have lower pesticide loads) and Mark's system is substantially better than any other agricultural system I know of, I'm interested in doing him one better. He has a cavalier disregard for invasives, going so far as encouraging people to plant the Siberian Peashrub because of its vigor. His system probably reproduces many of the ecosystem services we might expect from such a plot. But it doesn't go as far as it could in actually monetizing restoration of modified native ecosystems. The system is advocated for its benefits to the farmer and to society, and the "restoration" aspect is only vaguely referred to with some handwaving about bird species and tree frogs. Mark seems to be implying that if you put together something that resembles an ecosystem, the self-repairing aspects of ecology will take care of the rest.

Thus Restoration Agriculture lacks the flavor of deep ecology, bioregionalism, of love of place, that, for instance, Richard Manning communicates so beautifully in Grassland: The History, Biology, Politics and Promise of the American Prairie. There's a little too much of the engineer. Members of each canopy layer are interchangeable parts, altering the hydrology is a water harvesting strategy, not a return to free meandering rivers and the “story the land calls forth.” In some ways it's still an organic machine. This isn't just a sentimentalist complaint tied to a misled vision of wilderness – it's pragmatic: it influences the choices you make and the results you get.

On the flip side, this pragmatic lens is a clear advantage. Mark is far more interested in monetizing good practices and achieving financial sustainability than in remaking the pre-Columbian Exchange oak savannah. This is a really, really important line of thinking because it unlocks a wonderfully appealing transition path. With restoration ag, we can restore cornfields to functioning ecosystems resilient to climate change, produce enough food to not only feed urban populations, but feed them in a way that solves serious nutritional issues, and at the same time engage in a restoration agriculture project that pays for itself in cold, hard dollars. Mark makes a number of suggestions that make this track seem feasible, but most of them boil down to putting in every niche an organism that yields marketable products. Large animals in the system are completely replaced with livestock; trees are chosen for their growth rate, timber quality, and edible bits; trees are laid out in patterns that facilitate mechanical harvesting and soil management. Even most of the ecosystem services are meant to reduce work and investment by bootstrapping themselves into perpetuity.

I've been ragging on the book quite a bit, so I want to emphasize the quiet enormity of Mark's idea. He doesn't express it very well (hopefully I can write a better book a few years down the road ;) but it really is totally revolutionary.

Mark does what sustainable agriculture practitioners have been saying they want to do for ages but have

never thought they could really get away with. He uses ecological means to manage weeds, pests, diseases, and fertility. He makes food production compatible with wildlife – theoretically all of it. Mainstream organic farmers, on the advice of the Xerces Society, install hedgerows and insectary plantings and windbreaks that provide marginal habitat for insects on the borders of fields. The fields themselves are still essentially "sacrifice zones." Mark builds the solutions into the system. It's organic farming that finally makes sense, that finally fulfills its promises.

It's the same in nutrition. Organic farmers play up the lack of poison and the nutritional density of fresh vegetables. They're marketing a product that is easy for them to produce, and they're right about those claims, but they aren't actually putting themselves in a position to solve global nutrition issues. Mark instead looks at what people eat and want to eat, and asks how he can supply that in a restoration agriculture system. Unlike most organic growers, he is attempting to create a nutritionally complete diet. Of course, this is the only way the movement can ever fulfill its goals. We can only end the devastating reign of industrial agriculture by replacing it completely.

So Mark's brilliant, incomparable, and endlessly worthwhile contribution is simply the explication and proof of concept of a great idea – perennial polyculture food ecosystems – but there were a few other great ideas in the book as well. His concept of on-farm plant breeding is empowering and exciting, and likely a necessity in dealing with the vicissitudes of catastrophic climate change. It takes the long view of diverse outcomes in succession, acknowledging that if we are going to shape artificial but permanent food-producing ecosystems, we will need to shape the genetics of each component as well, mimicking the locally specific and therefore regionally diverse gene pools found in nature.

While he wasn't particularly good at focusing on deep ecology and his particular place, he did make great strides in integrating environmental history into his design. He brings it back to pre-Clovis North America, to the Pleistocene megafauna, and uses that lens to translate functioning ecosystem traits (like what I saw in Tanzania) into lessons for the farm. I think a lot of the problems organic farmers have when implementing solutions stem from the fact that few people have a grasp of what truly rich and healthy ecosystems are actually like. This insight made me appreciate my lessons in Tanzania much more. It really puts the lie to the zero-sum thinking that encourages specialization and simplification of agroecosystems, showing that many different plant and animal species can coexist productively together. It is the norm in natural ecosystems.

Chuck says

This is a permaculture resource book that is up-to-date, inspirational, informative and transformational. Mark makes the case for a new vision of perennial agriculture as a way for humans to live sustainably on the planet. And it's full of practical discussions of the reality of annual/tillage farming as compared to his own data from his demonstration perennial-based farm.

Alex says

Great introduction to agroforestry with a permaculture flavor. Shepard makes a great case for the necessity of nothing short of an agriculture revolution. I was hoping for more practical details about how to actually do my part on my property. But he does point the reader in the right direction and mentions where to find more info. The writing is crisp and personal.

Zach says

This is, so far, the best collection of permaculture philosophy that points toward a specific system of planting that yields food and replenishes the soil. Most of the permaculture books I've read are either broadly preaching to a set of sparkly principles or a reference book lacking a compelling narrative, but this manages to do both. It doesn't get into the daily details of maintaining such a system, but the point is also to develop plants that survive neglect, which is cool for this lazy, lazy gardener.

Some of his points could use some explanation (i.e. how has *every* civilization reliant upon annual plants failed?), and I lost momentum toward the end, but it's still a fantastic book that gets me excited to plant a bunch of trees on land I don't yet own.

-Me says

This is a fabulous book about permaculture principals and why a perennial, polyculture farm is more productive and healthier than an annual, monoculture counterpart. The descriptions are clear and concise. I would highly recommend this book to anyone interested in the subject.

Anna says

I hate to be the nay-sayer to this book. Mark Shepard has a fascinating story to tell about his 106-acre food forest. Unfortunately, he doesn't tell it! Instead, he titillates us with tidbits of hands-on information (which might cover about 20 pages), then rants and regurgitates for the rest of the book.

Luckily for you, I've written a lunchtime series with those useful tidbits in it, so you don't have to go gold-mining in this book.

John says

This book is a big deal. There has always been the question: is permaculture actually physically and economically feasible as an agricultural practice on a large-scale, in a way competitive with conventional farming, while not compromising on ecological measures? This book makes a broad case that the answer is yes, both by qualitative and quantitative measures, and explains how this agriculture is done in an accessible way. In short, these practices takes both techniques from permaculture, such careful perennial plant combinations and keyline-style water management and plowing, with a natural farming approach to variety selection and pest control (namely, if a plant is going to die without constant tending, a working polyculture farmer doesn't have time to deal with it).

This book includes a great overview of the polycultures Mark uses, including silviopasture (integrated herd management), bee-keeping (the history-driven explanation of how bee colony collapses are caused by modern bee-keeping technology, and the alternative historical practice, was eye-opening), and fungi harvesting, but also points to other systems appropriate to other regions, and gives credit to further resources, such as the Center for Agroforestry. It describes the transition to these practices from annual agriculture. The book also provides a numerical comparisons of the yields seen today by conventionally-raised corn in terms

of nutrition, useable caloric output, and input costs.

The book does repeat itself, but not in a way that I found off-putting to my reading, but more in the sense of "here is yet another example of X", continually marshaling evidence and pointing back to points made before, in a way I found kept a certain rhythm with my particular pace of reading.

Finally, besides explaining and defending, this book is also a call to action, urging farmers, ranchers, and land-owners to undertake these practices, others to support their efforts, and "doing-based" non-profits to build these efforts. I cannot help but be excited about the

Let's talk about what the book isn't. The purpose of this book is not to provide a complete agricultural-design practice or to be a step-by-step guide of what to do when. Others have found "The Resilient Farm and Homestead" to be better for this purpose, and so far I'm enjoying that too. I suggest it can't hurt to read both. It's also not written for conventional farmers to enjoy, though I can't tell exactly how inflammatory it is.

What readers may find astonishing is that this book does not exhaust all that Mark has to say. I've initially heard Mark speaking on a variety of podcasts, and I recommend maybe listening to a few of those first, so that you can hear the voice of the book.

Mark says

There are more and more books on the market concerning permaculture and for good reason. The recent upsurge in interest regarding organic foods and humanely raised animals for food will eventually lead to the concept of permaculture. Mark Shepard's book, Restoration Agriculture, is a good example of this. Shepard's farm, located in Wisconsin, is the living example of what permaculture is.

The book offers solid suggestions on how to get started and what it takes (time) to begin the journey towards food revolution. However,I would suggest that this particular book on permaculture is not limited to real-world solutions. Rather, Shepard spends the first third of the book explaining the evils of agribusiness and the inevitable consequences of mixing cash profit with long-term realistic goals. Make no mistake, Shepard is correct in his doomsday scenarios.

However, I think the book should explore in more detail the suggestions that he makes regarding permaculuture practices rather than giving an expose upon the agribusiness that is causing so much of the environmental degradation that we see today.

I would recommend Shepard's book to those "just getting started" in the business of growing their own food. While I am one of those beginners, I have read several other books on permaculture including Sepp Holzer's book concerning the topic. Shepard is certainly a cheerleader for the permaculture movement, but I think that the title is a bit misleading. Restoration Agriculture is not just about restoring the tortured land that surrounds us, but is about uncovering uncomfortable facts about the real cost of how many of us live today.

Blanche says

An incredible call to arms, and a hopeful vision for a future we could build.

Warren says

It is an inspirational book - not only does Mark explain restoration agriculture but only offers methods to practically set up such a system.

Karen Mahtin says

I read Acres U.S.A. magazine, and I have to say that the quality of editing (lack of proofreading) of this book is entirely consistent with the magazine's. I have to wonder if anyone at Acres read the book, or why they seem to have a policy against editing. It can actually interfere with the reader's comprehension of the text. For instance, there's the use of the word "decent" instead of "descent." Can you imagine being a non-native English speaker (aka "English learner") and trying to understand this kind of thing? There are also issues such as agreement of subject and verb, misuse of commas and hyphens, etc. Here's another example- I'm watching a video interview with him and he misquotes the same kids' song as in the book: "and the green grass grew all around, all around..." Uh, it's "grows." A quick Google search verified this for me.

These typos take away from the credibility of the entire work. They also make the reader ask oneself over and over, "Did the editors ACTUALLY READ THIS BOOK?!"

The book is slow to start, with a lot of background about ecology and stuff like that. Like many Acres U.S.A. publications, it doesn't have a lot of recommendations for plants to use in Californian (although Shepard does cover the oak savannah). The chapters in the middle of the book cover different things that you can have on your farm, like livestock and bees. I actually learned a lot from the bee chapter.

Harry says

This book has some really great information in it and is obviously the culmination of a lifetime of dedicated work. There are some tremendous ideas that are described, demonstrated, and ways to put them into practice. Unfortunately the author felt a need to spend a lot of pages attacking big Agriculture and defending his lack of credentials. The writing throughout is clear but the tendency to start preaching is a negative to the book and would have earned a poor rating from me but the information is so compelling I want people to read it.