

**Origins of the Organic Agriculture Debate.** By Thomas R. DeGregori. 2004. Iowa State Press, Ames, Iowa, 211 p. US\$54.99 hardbound. ISBN 0-8138-0513-9.

When did the debate begin over organic agriculture? Why is there a debate? Why are there so many proponents of what the author terms “rejected science”? Apparently the debate began when “vitalism” was “banished” from science over a century ago. However, the author would argue that the vitalist view was never abandoned, as many believe, but that it lives on in alternative science and is defined as rejected knowledge, including such knowledge as homeopathic medicine and organic agriculture. The author argues, “...technology creates resources. I do not know of any idea more calculated to keep people impoverished than the idea that resources are natural, fixed, and finite.” “This book is largely about science and technology providing us with our daily bread, science and technology are about much more than bread alone.” The author states “this is a partisan book in that I argue that these vitalist beliefs are largely harmful in their impact.”

The book contains 11 chapters: Science, Technology, and the Critics of Modernity; Science, Integrated Inquiry, and Verification; Reductionism: Sin, Salvation, or Neither; On the trail of DNA: Genes and Heredity; Vitalism and Homeopathy; Disenchantment and the Cost of Rejected Knowledge; Rejected Knowledge, Nature, and the Occult; Vitalism, the Organic, and the Precautionary Principle; Feeding Six Billion People; Romantics and Reactionaries; Risk, Representation, and Change. A preface, an introduction, epilogue, a reference section, and an index are also present.

This book analyzes 2 historically contrasting views. The first view comprises the ideas in chemistry and biology that have created the world as we know it. Advances in modern medicine and agriculture, among others, are extensions of these advances. The second view is the “vitalist” position rejecting modern science in favor of outdated and disproved knowledge.

The author excels at providing examples that support his point that “the integrating thesis of all my writing is that modern science and technology have provided an increasing number of us a quality of life and the longevity to enjoy it unprecedented in human history...to use this science and technology to create a better world for all.” Unfortunately the author deviates from one of the core rules of persuasive writing, i.e., when writing about a subject that is highly controversial (organic agriculture and alternative medicine certainly qualify) avoid try-

ing to prove a point in a way that says “I’m right and you’re wrong.” The author alienates his audience early on by writing from the standpoint of why he is right. This book would certainly be better if it focused on “the origins of the organic agriculture debate”, its history, proponents, examples of its implementation, and the potential consequences suffered by blindly following either “modern science” or “vitalism”.

The author gives many examples of disastrous consequences that have occurred in medicine. Two homeopathic doctors in Germany who opposed the measles, mumps, and rubella (MMR) vaccine are now being blamed for a measles epidemic involving over 7 hundred children. “Thirty children have been taken into hospital and the authorities fear there could be deaths if the infection rate continues to rise. The 30 children to be treated in hospital so far have ear, lung, and larynx infections brought on by measles”. “Classical child diseases permanently strengthen the child’s immunity and aid progress in the development of the child” is a claim made in a pamphlet circulated in Coberg, Germany, by homeopathic practitioners (Hall 2002).” The author cites many papers, with many examples, that have stories which support his point of view. However, what does homeopathic medicine have to do with organic agriculture? The primary commonality is that homeopathy is a vitalist principle, but if the reader is looking for a balanced discussion on the origin of organic agriculture, and discussion of whether going organic is a good idea or not, they won’t find it here.

Regardless of the reasons not to buy this book, there are several good reasons to purchase it. It provides the reader with in-depth knowledge of the arguments used by those opposed to organic agriculture. If the reader is of the view that organic agriculture is the only way food should be grown, this book would help them know their opposition. Also the author’s tendency to alienate a reader with an opposing view provides a good lesson, which ideally will result in future authors writing in a more effective, persuasive manner. The author states that “I write books and articles with the uncompromising and undiminished faith that the light of reason will shine through the darkness of even the most organized ignorance, and that science, technology, and other human knowledge and understanding will show us the way to that future that we all desire and that the least privileged individuals desperately need.”

Let us hope the light of reason will shine through the darkness of following purely what we think we know. We once thought that DDT was the “silver bullet” of insect

management, but in less than a decade insects became resistant and food chains were forever altered. The author states, “To an increasing number, the more that science and technology improve our lives, the more fervently they believe that it is harming us.” “Life on Earth is killing us” is one study’s conclusion.

“The author asks: “if science and technology are killing us, why are we living so long? If our food is so lacking in nutrients and our medicine and pharmaceuticals so ineffective, then why are we so healthy?” He says he would appreciate someone making a modest effort to answer these questions. Well maybe a better question to ask is how long can we continue farming in a way where we mine the soil? Are using petroleum derived fertilizers such as nitrate and urea to grow crops with higher yields and also using pesticides to ensure those yields, relatively sustainable when compared with growing lower yielding varieties that require less inputs?”

The green revolution produced many great crops and fed millions of people; however this revolution was not without cost. New high yielding varieties of rice were introduced into the Far East. These varieties replaced traditional varieties that had evolved over the centuries to be resistant to the native insects and pathogens. The new rice varieties were not resistant to insect attack, and had not armed themselves with a means of coping with insect damage to the extent of the older varieties. However, we had insecticides! We were saved by chemicals, which were formerly not required, leading to the infamous “pesticide treadmill,” i.e., once you get on, it is difficult to get off. Many pesticides endanger the applicator, and our ground water could be and often has been contaminated. The author states “Serious issues require serious debate and no issue is more important than how we will feed nine billion people in less than a half century from now.” How will and how should we feed those people?

I am not a proponent or opponent of organic agriculture. I don’t think that conventional agriculture can answer all our needs, nor do I believe that organic agriculture can. The way to solve our problems is not by shouting “I am right!” It is about what do you think, what do I think, and what seems the right direction for our society and our world.—*Chase W. Metzger*, Washington State University, Pullman, Washington.