Agricultural Leadership for Yesterday’s World


For things to reveal themselves to us, we need to be ready to abandon our views about them. (Thích Nhất Hạnh)

Sociocultural diversity and environmental degradation are arguably the greatest challenges that humans face today, at both global and local scales. Learning to live with each other and without (more) severely altering the Earth’s biophysical systems are mandates that require integration into all areas of research, education, and production, including agriculture. Because externalities are no longer out of sight or mind, developing strategies to feed ourselves that lie within agreed parameters of environmental, social, and economic sustainability is our challenge and requires new forms of problem solving and leadership.

Forty US states have agricultural leadership programs (www.karlprom.com/resources/iapal-directory) that are often a combined public education (land grant university or polytechnic) and private industry endeavor, with many other programs targeted specifically at industry or academia. A recent contribution to leadership training specifically for agriculture is the 2013 book Leadership in Agriculture: Case Studies for a New Generation. Unfortunately, this book is most notable for its shortcomings regarding agricultural leadership in the twenty-first century: a failure to recognize cultural or gender diversity, a sense of reverence accorded to private industry and the military, and a virtually absent contemporary context. For example, there is only passing mention of climate change and nothing about mitigation or adaptation, virtually no attention to the impact of social media and information availability, and a failure to raise the gaze of leadership to the larger social and environmental implications of an endeavor. These omissions make it impossible to construct useful models for leadership in agriculture for the twenty-first century.

It is hard to argue with the value of individual character, which is the topic of a chapter and a theme that is central to the book. Few would deny the importance of honesty, integrity, prudence, and justice in those with decisionmaking positions. Indeed, we can hope that those are considered desirable traits no matter who you are. However, the authors’ framing of leadership character on the basis of “cardinal virtues” and relying heavily on associated terminology confines the book to a Western, Christian tradition in a manner inappropriate for a multicultural, secular society.

In nine brief, accessible case studies, the authors describe examples of leadership in action, including the recovery of a US Department of Agriculture research center in post-Katrina Louisiana, the establishment of the National Research Initiative (now the Agricultural and Food Research Initiative) and CAST (the Council for Agricultural Science and Technology), the creation and coordination of a state–federal–university pest-control program, and the development of a leadership training program for state experimental stations.

Now more than ever, leadership and problem solving require the capacity to recognize and question one’s own biases, but this book exhibits a disappointing lack of objectivity. One case study, prepared with Monsanto staff under the direction of the company’s public affairs team leader, is about the change from a chemical company to the largest of the corporate giants constituting the global seed oligopoly. This case study, which is twice as long as the others, has the feel of a foundational myth, complete with selfless visionary heroes, tireless labor, and stunning success. The story might be a justified inclusion if the authors—our guides to leadership—had questioned—or even acknowledged—it as a highly subjective, self-serving corporate yarn, but they do not. Another example is the CAST case study, which repeatedly describes opposition to agricultural technologies, such as pesticides or genetically modified crops, as “emotional” and “lacking scientific rigor”—a problem that CAST was formed to remedy. This may be an accurate assessment of some opposing arguments but certainly not all of them, and many have been made by well-respected scientists.

There are good reasons for scientists to be investigators of—not cheerleaders for—certain agricultural technologies. These reasons include the impact of some synthetic agrochemicals on the environment (Relyea 2012) and human health (Gray and Lawler 2011). Also important are the consequences of herbicide-resistant transgenic crops for long-term weed management (Mortensen et al. 2012) and pest-resistant transgenic crops for the durability of the most useful biological pest management chemical currently
available, Bt (Bacillus thuringiensis; Tabashnik et al. 2013). The fact that several of the largest corporate producers of pesticides, transgenic seeds, and their matched herbicides are CAST donors is a powerful reason to question the scientific rigor of the authors’ claims and a significant oversight in leadership in an organization committed to public understanding and education. Overall, although the authors repeatedly celebrate the contributions of industry, there is good evidence that a more circumspect approach is called for, especially on the part of those with the authority to make significant decisions. (For documented examples of the influence of industry in public universities and science, see Food and Water Watch 2012 and UCS 2012, respectively.)

There is broad recognition of the need for change in how agricultural research and education are conducted and that collaboration at many levels and in many directions is imperative (McIntyre et al. 2009, NRC 2009). This will require honing skills such as interdisciplinary understanding, respect, empathy, and a readiness to analyze one’s own ideas and values. Responding to the challenges we face will require more than perfecting strategies that have spelled success for a department or industry in the past but that are flawed in terms of their larger consequences. We need a fresh approach to working together. In fields such as psychology, neuroscience, and behavioral economics, we are now learning that empathy and cooperation are important and evolutionarily adaptive (Manner and Gowdy 2010); that a sense of equity may be just as innate as one of competition (Dawes et al. 2007); that transparency and a clear disincentive for greed effectively enforce prosocial behaviors (O’Gorman et al. 2009); that there are fundamental biophysical benefits to helping others (Fredrickson et al. 2013); and that all of us, including Nobel laureates, need to consciously, consistently push to keep our analytical minds engaged in order to avoid habitual, less-than-optimal solutions to problems (Kahneman 2011).

A focus in current leadership research is the importance of followers (Kellerman 2013), a term unfortunately given pejorative connotations but describing a group in which all of us are members at multiple levels. Followers are far more numerous than leaders are, and different types of followers’ behaviors are seen as defining much of the form and direction of leadership. Information accessibility and social media can mean that engagement takes different forms and may increasingly be influenced by the experiences of followers. This will facilitate greater fluidity as some leadership roles change over time and as they vary by region. In agriculture and in other sciences, this shift is visible in the rise of participatory research, including participatory plant breeding and citizen science, or PPSR (public participation in scientific research), both of which have experienced resistance from some in leadership roles.

Leadership in Agriculture’s authors—who are all male—state that they have backgrounds in the military, which explains the quotations of and referrals to various generals. I do not doubt their intent in using the military as examples of leadership, but agriculture is not battle. Given the scope and nature of the challenges we face, and the imperative that we must join together in new, collaborative ways to effectively face them, I am more inclined to believe that we need leaders who demonstrate the wisdom of bodhisattvas rather than the wisdom of generals.

References cited


[UCS] Union of Concerned Scientists. 2012. Heads They Win, Tails We Lose: How Corporations Corrupt Science at the Public’s Expense. UCS.

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