

My view

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In this brief essay, I want to deal with two thoughts: the importance of agriculture to society and survival and the importance of good thought and good writing to the communication of the importance of our science to our society. The relationship between the two is important.

We often hear that we live in a postagricultural, postindustrial, information age economy. Some (Davis and Meyer 2000) suggest that we are already halfway through the information economy that began in the late 1940s and will end in the late 2020s. The dominance of the information economy will give way to dominance of the bioeconomy (Davis and Meyer 2000). The bioeconomy opened to science and for business in 1953 when Watson and Crick discovered the structure of DNA. According to Davis and Meyer (2000), the information economy has been in its first or gestational phase ever since. It is now moving into its growth phase from which it will mature and decline. Today's young weed scientists may live during all four phases of the new bioeconomy, and the most perceptive among them will observe the next wave that will dominate the economy. It could be shopping, leisure, service, or some other thing that we do not know.

Davis and Meyer (2000) claim that "the first four industries to be infused by the bioeconomy era will be pharmaceuticals, health care, agriculture and food." The evidence affirms their prediction. However, for one who has spent most of his life in agriculture, the claim that agriculture and food are somehow separate is surprising and deeply disturbing. The claim that agriculture and food are distinct illustrates that society sees them as separate, unrelated enterprises. Agriculture is farming and ranching; it is growing something. Agriculture is hard work and drudgery. It is what some must do, but it is not what most want to do. Food production is something else. It is not just hard work; it is a business, and it is profitable. People understand that food comes from the grocery store. Farms and ranches may be involved, but the connection is obscure.

I believe it is conceptually, scientifically, and intellectually wrong to separate agriculture and food. Manning (2001) says it clearly: "The dense package of storable carbohydrates produced by agriculture becomes the basis of all else—of permanent settlement, of the need for information, of art, trade networks, writing, religion, hierarchy, and disease. All this flows from seeds. The world's great civilizations, the root of what we call the developed world, are all based on agriculture."

We live in a postindustrial, information age society, and we may be moving rapidly toward the bioeconomy. But we do not live in a postagricultural society. We live in societies with an indigenous or an external agricultural base, or both. As Manning (2001) claims, everything we know and have is dependent on that base. We in agriculture know and appreciate the significance of that fact. Most people do not.

Therefore, although we know the value of what we do, we must recognize that most people do not understand or

appreciate the agricultural foundation upon which all they have and want rests. I suspect most members of our society would affirm the desirability of sustaining agriculture. If we were to probe for what that means, most of our friends and neighbors would not be able to articulate what achieving agricultural sustainability requires. I suspect that most people think that it is agriculture's responsibility to develop a sustainable system and that if it fails, it is the fault of those who practice agriculture, not of the society that benefits from agriculture. Sustainability, however, cannot be just an agricultural responsibility; it is a societal responsibility. The question of sustainability should not end with what weed management practices we can develop, how to stop soil erosion, or what new cultivars must be developed. The question of sustainability must change from one of agricultural sufficiency, resource conservation, and rural community well-being to one that asks what should be the style and shape of the societal institutions that govern agriculture. It is a societal not just an agricultural question. Achieving sustainability is not what farmers and ranchers must do; it is a task we share, and we will achieve it collectively, or we will fail.

But what has that to do with writing? Writing is one of the important ways we communicate the importance of what we do. Inevitably, when we write, someone else will review, edit, and criticize what we have worked so hard to produce. The review of our thoughts and the marks of the reviewer and the editor are a kind of bond between the writer and the reviewer. It takes a long time to review a manuscript carefully. I rejoice when I receive four- or five-page detailed, constructive reviews of a manuscript. These colleagues have entered the thoughts of the authors and are trying to improve what has been written. They are helping each of us improve the completeness of our work, and each written piece may help tell all about the importance of what we do. A recent note from Anne Légère had a quote from H. G. Wells (work unknown): "No passion in the world is equal to the passion to alter someone else's draft." How true, and how unsettling it is to have our words challenged by others! It is that challenge that makes each of us better communicators of the importance of agriculture as the foundational human activity.

We live in the information age, and moving to the bioeconomy, but we depend on writing and reading to communicate what is important. Much may be read on a flickering screen, but written words move us to act. That power is as great as it ever has been and will not diminish as we move into the bioeconomy and on to the next economy. We will continue to write to tell others what we do. Others will edit because they care enough to help each of us to make our message clear.

Literature Cited

- Davis, S. and C. Meyer. 2000. What will replace the tech economy? *TIME* May 22:2.
Manning, R. 2001. *Inside Passage*. Covelo, CA: Island Press. 33 p.