

A Framework for the Conversion to Food System Sustainability: Editorial for JSA 33(1)

With this issue the Journal of Sustainable Agriculture embarks on some new directions. As you can see, we have reformatted the layout of the journal and changed the cover to reflect the broader focus on food system sustainability. The larger page format will allow us to include more articles in the same number of pages. But as can also be seen in the inside cover, we are also redefining our directions and goals as a Journal. We are looking beyond the common focus in agriculture of concentration primarily on yields, and instead, critically analyzing the multiple and complex issues that are needed to ensure that all components of the food system reflect and contribute to sustainability.

As the Journal moves into this expanded focus, we will be looking for contributions that emphasize the steps needed to transition our food systems to sustainability. We can think of these steps as a series of levels. The first level is where our agricultural research has excelled for a long time – searching for ways to improve yields through the development and refinement of current technologies and practices that increase the efficiency of conventional practices in order to reduce the use and consumption of costly, scarce, or environmentally damaging inputs. Although these kinds of efforts reduce the negative impacts of conventional agriculture, they do not help break its dependence on external human inputs.

The second level substitutes conventional inputs and practices with alternative practices. The goal at this level of conversion is to replace resource-intensive and environmentally-degrading products and practices with those that are more environmentally benign. Organic and biological agriculture are examples of this level. The basic agroecosystem structure is not greatly altered at this level, hence many of the same problems encountered in conventional systems continue to be problems with input substitution.

At the third level, overall system design eliminates the root causes of many of the problems that will still exist at levels 1 and 2. The focus at this level is the redesign of the agroecosystem so that it functions on the basis of a new set of ecological processes.

Problems are recognized and thereby prevented by internal site- and time-specific design and management strategies, instead of by the application of external inputs.

Finally, at what can be considered to be the fourth level of conversion, we recognize that any transition takes place within a cultural and economic context, and that context must support conversion to more sustainable practices. There is the reestablishment of the more direct connections that used to occur between those who grow the food and those who consume it, and out of the relationships that are formed through these connections, we can move towards building a new culture and economy of sustainability.

I invite contributors to the Journal of Sustainable Agriculture to consider where their research lies along this series of levels of change. When you submit manuscripts to the Journal, think about how you can locate your own work along this continuum, and consider the importance of moving your work to the highest level in the conversion process as you can. There is an urgent need to carry out the type of research that will help us find answers to larger, more complex questions, such as what food system sustainability really is and how we will know we have achieved it. I welcome all of you to this important task.

Steve Gliessman, Editor