STRAIGHT TALK FOR CHEFS ON SUSTAINABLE FOOD

A pioneer in sustainable agriculture talks with Chris Koetke, Kendall College School of Culinary Arts.
AS CHEFS, nothing is more important to us than the food we source every day for our guests. However, unlike areas such as energy and water conservation and waste reduction, there are no easy answers about food to guide us. That's why this month I've reached out to one of the experts in sustainable agriculture to help clarify some of the issues. Dr. Fred Kirschenmann is a distinguished fellow with the Leopold Center at Iowa State University, Ames, Iowa. He also owns a family farm and has been involved with sustainable agriculture since the early 1980s. He had so much valuable information that this is the first part of a two-part interview.

CHRIS: Chefs spend most of their time concerned about customers, operations, menus and those kinds of day-to-day things. Unfortunately, there is little time to really get deeply inside the issues around sustainable food. What I’m hearing from my fellow chefs is that there’s a lot of confusion out there. As a case in point, I was in Hilton Head, S.C., recently doing a presentation, and I talked to a chef who asked me, “Which do you believe in, organics or sustainable?” I’m hoping you can help us navigate the waters, so that when we’re talking about terms such as “organic,” “biodynamic,” “sustainable” and “local,” you can give us your thoughts and some context.

FRED: I will address that in a second, but I want to tell you a story. I have the good fortune of being here with Chef Dan Barber at Stone Barns Center for Food and Agriculture in Pocantico Hills, N.Y., and he tells me there are two schools of chefs now: those who buy products without paying much attention to taste or quality, and then use all kinds of molecular techniques to transform that food into the kind of great tasting food they want to serve their customers; and chefs who establish unique relationships with the farmers who are producing the kind of quality food that has wonderful taste without artificial enhancements, who he calls “farm-to-table” chefs. And, in fact, Dan now likes to say that it’s really the farmers who are the chefs. 

CHRIS: When we talk about foodservice, it’s such an enormous market space, although it’s often the high-end restaurants that garner all the press, and if you look at the big players, it’s fast food, it’s fast-casual. There’s a whole slice in the middle that doesn’t belong to either end, and they’re saying, “I’ve got to make a profit at the end of the month.” If we can give them tools to understand the food they’re purchasing, that’s where I come in, and I want to make sure we’re able do that.

FRED: I wanted to tell that story because it does play into the question of organic vs. biodynamic vs. local vs. sustainable. There’s not a lot of peer-reviewed research around this yet, but there is growing anecdotal evidence that when food is grown on biologically healthy soil, that is, soil that has been managed to feed the soil’s biological community, it has a much better taste. The only way you can feed that community is by putting the waste, preferably in composted form, back into the soil. We’ve been experimenting with that here at Stone Barns. We’re working with farmers here, looking at different types of soil management and compost—and now, biochar—and how they affect the taste quality of the food.
Chris: Biochar?

Fred: The term “biochar” began appearing about 10-15 years ago in soil science literature. It was discovered in South America. Within a relatively depleted area, this incredibly rich piece of soil was found that went 10-15 feet deep, and they couldn’t figure out how that could be possible in an area that was basically depleted of soil health. As they checked back into the history, they found out that a community of indigenous people who lived in that area had burned wood for cooking, but only to the point where it was a particular kind of charcoal, which they called “terra prima,” and they would put that back into the soil. So we’re experimenting with it here, and we’ve discovered that if you mix a small amount of biochar in with the compost, it improves the quality of the compost tremendously, and that, in turn, improves the taste quality, as well.

Chris: Can you talk a little bit about organics?

Fred: One way to look at organic food is that it meets the national standard. I served on the National Organics Standards Board when we developed the rules for implementing the law. Several of my colleagues and I wanted to make sure that organic production systems could only be certified if they also paid attention to soil health. We drafted some language, and the staff was interested in incorporating it into the standards. However, when we ran it by the lawyers, they said we couldn’t do it because regulation relies on yes/no answers, and there was no way to answer the complex soil quality issue in that manner. So we ended up with a rule that says you can use any natural products that aren’t listed on the “prohibited” list, such as arsenic, and all synthetics are prohibited except those on the “allowed” list. That means you can have a certified organic operation that simply uses natural inputs instead of synthetic inputs, yet doesn’t pay any more attention to the biological health of the soil than a conventional system.

When you buy some certified organic foods, and they get their natural inputs, such as seaweed, from Japan, etc., is that what someone like Sir Robert Howard, founder of the organic farming movement, would consider organic? The answer would be no. In terms of the quality, that isn’t to say certified organic foods don’t have certain benefits, such as the absence of toxic chemicals, etc., but in terms of the kind of quality some associate with organic, you don’t always get that. So, I’m sorry to say it, but it becomes a more complex issue when you begin to peel back the covers just a little bit.

Chris: So, as a chef, when I’m purchasing something that is organic, are you saying that I’m purchasing something that is certified by a standard, but it doesn’t mean that the farmer who produced it is necessarily being the best steward of the land?

Fred: That’s right. And it also doesn’t necessarily mean that it’s sustainable. If you get your seaweed from Japan and your Chilean nitrate from South America, its associated energy costs go up, and that’s probably not sustainable.

Chris: So, tell me a little bit about biodynamics.

Fred: The original concept of biodynamics, in Rudolf Steiner’s view,
was that the farm was an organism. What he meant by that was the farm needed to be self-contained, like an organism, so that everything you used on the farm was part of the farm—nothing was brought in from outside. That meant you had to have the right number of animals to produce the manure needed for composting, etc., but not so many animals that you stressed the system. That’s not strictly adhered to anymore in the biodynamic standards. It’s preferred, but you can find biodynamic farms that don’t have any animals on them at all.

The fundamental difference in organic and biodynamic is that while the fundamental standards are similar, with biodynamic, there’s strong emphasis on maintaining the biological health of the soil and, in addition, you’re required to use a series of preparations that go back to Steiner. In my view, those preparations are overrated; Steiner himself said that the preparations only enhance the components of the system and are useless unless you have the system in place.

**CHRIS:** Do you have any idea of the percentage of agriculture that is actually biodynamic?

**FRED:** In this country, it’s very small, but in Europe, where it started, it’s actually quite significant.

**CHRIS:** From a chef’s perspective, I’ve heard of some biodynamic wines, but I don’t know the last time somebody said you can have this case of tomatoes that are organic or this case raised in a conventional fashion or this case that is biodynamic. Why is that?

**FRED:** I served on the biodynamics board about 20 years ago, and part of the reason was, at that time, it really was a bunch of old white guys. I tried encouraging them to market the biodynamics system, and just at the mention of marketing, they thought you were headed down a slippery slope and you’d ruin the integrity of the whole system. I tried to tell them that marketing, done with integrity, is just telling your story, and we needed to tell our story. They just wouldn’t have any of it, and I left the board. Jim Fullmer, director of Demeter® USA, Philomath, Ore., which is a certifying body for biodynamics, has started an association that markets biodynamic wines, and I think that’s a great strategy. Everybody I know who’s tasted biodynamic wines talks about how great they taste. The strategy Fullmer is using is to get biodynamic wines recognized as a symbol of quality, and then start to market other products that are biodynamic.

**CHRIS:** And how about sustainable?

**FRED:** Sustainable, that gets even more complex. I’ve been involved with the sustainable agriculture movement since the early 1980s, and my own view is that one of the early problems was that those involved wanted to come up with a precise definition. I was kind of on the sidelines in that debate, but it intuitively just didn’t feel right to me. I was managing our family farm at the time, and we had started transitioning to organic in 1976. The more I struggled with what it meant for my farm to be sustainable, the more I realized you couldn’t come up with a precise definition because it kept changing. I had to keep abreast of the changes coming at me and adapt to them, and somehow that had to be integral to the concept of sustainability.
We’re still caught up in this notion that we somehow have to come up with precise definitions for marketing purposes, and it’s a fool’s errand, because sustainability has to be a process, not a prescription. There’s the notion of what I call “steady state sustainability,” which assumes the context in which everything functions will stay the same, and then all we have to do is “green it up,” make it more environmentally friendly, and then we’ll be sustainable. That’s simply just not the case; that’s just more greenwashing.

There are a new group of thinkers addressing this, not directly with agriculture, but on a broader basis. The Resilience Alliance, whose thinking is informed by ecologists such as C.S. Holling, says that resilience has to be a component of sustainability. You have to build resilience into the system so that when disturbances occur, there is sufficient resilience in the system so it doesn’t cross over into a different kind of functioning. Secondly, if the disturbance is dramatic enough that it does cross over into a different kind of functioning, you have to have sufficient redundancy so that you can recreate the function. The more I’ve thought about it, I think that gets at the heart of what sustainability needs to be. As we anticipate a future with the end of cheap energy, more unstable climates and depleted water resources, we have to build resilience into the systems. Fortunately, I’m seeing this more in the literature, and I think the need for resilience is really gaining some traction.

(The remainder of this conversation will be continued next month.)