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For researcher, organic farming comes naturally

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Agricultural Research Service Horticulturist Eric Brennan records data on weed seedling growth between rows of a young cover crop at the USDA's certified organic research plot in Salinas, Calif.

Brennan is first and only organic researcher at ARS

By TIM HEARDEN

Capital Press

Eric Brennan's love of agriculture came early in life.

Born in Papua, New Guinea, to American parents, he felt at home amid soil and vegetation.

"I grew up in the middle of a subsistence-agriculture community," the 45-year-old said. "Agriculture was always what we did for fun as kids. We made gardens, and my master's research actually was conducting an organic farm in Hawaii."

Brennan's love for nature led to his current job as the USDA Agricultural Research Service's first and only researcher to focus solely on organic production.

Based in Salinas, Calif., the horticulturist has broken new ground on discovering just how valuable cover crops are in providing nutrients for soil -- a useful tool for any farmer and a crucial element for organic growing.

"I don't do organic-conventional comparisons," he said. "I just focus on organic systems, trying to see which organic systems are the best and designing better ones. ... There have been many researchers that have done organic-conventional comparisons. To focus just on organic systems, there had not been any prior to this job."

The position was created about eight years ago after U.S. Rep. Sam Farr, D-Carmel, pushed for such a researcher to be based on California's Central Coast, where a large portion of the U.S. organic cool-season vegetation is grown.

Brennan was hired a year after earning his doctorate in plant biology at the University of California-Davis. In Salinas, he's working with a 25-acre organic plot owned by ARS and is also doing research on local farms.

Brennan found that standard seeding rates that many organic farmers were using for cover crops were far too low, he said. A lot of weed seed was being produced, which had a negative impact on subsequent years' vegetable crop costs.

"It costs a lot to weed a field," he said.

He and other researchers also found that regular cover cropping is important.

"If you don't cover crop often, at least every two or three years on our soil type, the soil quality declines quite quickly, and you can't make up for the lack of cover crop by adding compost," Brennan said.

Many farmers prefer to leave their fields fallow because it's easier to plant in the spring without the residue from a cover crop to deal with, he said. However, fallow fields are susceptible to erosion, causing pollution of ground and surface water, he said.

"The unfortunate truth is a lot of farms leave all of their fields fallow during the winter, especially conventional farms," Brennan said. "Organic farmers have to cover crop more often than that, but even some of them ought to be cover cropping more if possible."

Brennan's work with cover crops and other aspects of organic farming recently earned him recognition from the Organic Farming Research Foundation, which honored him at a reception in San Francisco.

"His focus on cover crops is an awesome and important need for organic producers," foundation spokesman Ted Quaday said. "The fact that he's the first researcher within the ARS dedicated solely to organic production tells us not only that he is focused in the right direction, but also the ARS is moving in the right direction."

Brennan credits individual farmers for boosting the USDA's attention to organic agriculture. As more organic farms are succeeding, the need for more research to support them is apparent, he said.

"Some researchers have speculated that by 2050, 50 percent (of farms) might be organic, but it's hard to say," Brennan said. "I think what's easier to say is that over time, more of the practices that are common in organic (farming) will hopefully become prevalent in conventional systems.

"With organic research, although we're directly helping organic farmers, a lot of the things we're learning have applications in conventional systems," he said.

Eric Brennan

Occupation: USDA Agricultural Research Service horticulturist

Age: 45

Location: Salinas, Calif.

Education: Doctoral degree, University of California-Davis

Quote: "I think ... over time, more of the practices that are common in organic (farming) will hopefully become prevalent in conventional systems."