

Edible food forest to benefit WMU students

By Alyssa Barraco

An edible food forest will demonstrate other ways to think about how food is grown and its impact on our environment.

Forests: lush, living, wet, green, dark and edible. That's right -- edible.

Forests are now being recognized as a serious food source at Western Michigan University. The [edible food forest](#) at WMU is located on the west side of the [Gibbs House](#) and will be a little over a half acre in size. Planting the first layer of the food forest began during the second week of April.

Mother Nature has been nurturing the trees, shrubs and plants that make up forests for about 370 million years and that cover about 29.6 percent of Earth's total land area said Soji Adelaja, a professor at Michigan State University who specializes in agricultural and food and resource economics.

A food forest is a type of permaculture and the ultimate purpose is to develop a site until it meets all needs of its inhabitants, Adelaja said. The food forest has seven basic food layers, Adelaja said.

"Mother Nature has refined the way to grow self-sustaining forests better than anyone. It stands that Nature is obviously the best, and realistically, the only model available for us to imitate for growing forests," Adelaja said.

Permaculture, in its simplest form, asks how can we live well in a place permanently and how do we make a permanent culture, said Josh Shultz, the permaculture program coordinator for WMU's Office for Sustainability.

The WMU food forest is being planted to demonstrate other ways to think about how food is grown and the impact it can have on our environment and our culture, Schulz said. The seven-layer food forest will be designed like an actual forest, he said.

The Gibbs House food forest will consist of edible tall nut trees, fruit trees, bushes and canes, a herbaceous layer, a root layer, ground cover that will keep weeds to a minimum and finally, vine plants that will climb the trees while providing edible crops, Shultz said. The food forest will also include deeper woods areas, open field areas, walking paths, art installations and education spaces, he said.

"It was an idea that I suggested during the initial phases of designing the property. As this is supposed to be a permaculture demonstration site, I thought it was appropriate that we demonstrate perennial agriculture in one of its most sustainable forms, a forest," Shultz said.

A food forest is simply a mimic of a natural forest ecosystem, Shultz said.

The seven-layer food forest will provide many benefits to WMU students as well as making the campus a more sustainable place, Shultz said. One of the most important benefits to WMU's campus is providing food for students as well as for wildlife, he said.

"It will benefit campus by demonstrating that a beautiful space can be more than just decorative trees with a grass lawn underneath," Shultz said.

"Students will have the opportunity to pick fruit right off the tree and interact with a much more complex and stimulating environment than what can usually be found on a university campus. The food itself will also benefit both campus and its students by being grown without harmful chemicals or tilling of the soil," he said.

Students at WMU are also looking forward to the upcoming food forest.

“I’m very excited about the food forest being installed at the Gibbs House,” said Shaana Way, student at WMU and a Gibbs House fellow. “It’s something not many campuses have, and it’s just a step in the right direction for making campus a more sustainable living place for students.”

One of the main reasons the Gibbs House is planting a food forest is to take the next step in making campus a more sustainable place, Shultz said.

“This will also make the campus more sustainable because it will be able to produce large quantities of food without the regular energy needed to plow, fertilize, weed and irrigate. Once the perennials are planted the only inputs the system needs are occasional pruning, pest monitoring and harvesting,” he said.

Not only will WMU benefit from the food forest, the Kalamazoo region will also benefit from it.

On a small scale like this, the Kalamazoo region wouldn’t be affected much at all, but if the food forest is successful in demonstrating its virtues, we would see dramatic changes in the Kalamazoo region, Shultz said.

“If others start converting their land from either mono-crop farmland or grassy lawn over to a perennial food system, we could see a whole new Kalamazoo,” Shultz said.

Mono crop farmland is the use of land for growing only one type of crop and perennial food system is when plants have a life cycle lasting more than two years.

“Forest cover would increase, which would regulate the temperatures between day and night and season-to-season better. Rainfall would increase, erosion would decrease, chemical use would decline in agriculture and soil carbon would begin building up again helping mitigate some of our carbon dioxide emissions,” Shultz said.

One of the biggest challenges in a food forest system is learning the life history and management techniques for so many plants, Shultz said. An industrial farmer only has to learn one or two main crops, a couple of cover crops and a handful of weeds that they will encounter on their farm.

“Managing the harvest schedule for so many diverse crops is going to be one of the most problematic things we will face,” Shultz said. “And what a great problem to have, too much food to keep track of.”

The Office for Sustainability permaculture team will lead the planting of the food forest.