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Couple finds ideas at 10th annual clean energy conference

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An Ilwaco, Wash., couple who attended last week's 10th Annual Harvesting Clean Energy Conference went home with new enthusiasm for producing renewable energy.

Jim and Vera Karnofski use biochar in their quarter-acre raised-bed garden.

"We find the soil is much more alive with the biochar in it," he said.

Jim, a retired nurse, described biochar as coal that's manmade for soil-enrichment.

"That's how we go fishing," said Vera, an occupational therapist. "We grow vegetables. People come and get vegetables and give us fish."

Jim makes his own biochar in a burner he made from a couple of barrels. His feedstock is kiln-dried hemlock and fir scraps from Elkhorn Truss.

"Biochar is gold," Jim said. "You only get a few pounds out of a burn, maybe 5-10 pounds."

Biochar has been used for centuries, he said, but it hasn't been "seriously rediscovered."

Researchers have studied biochar more in the past decade than before.

"There's really no negatives they've found," he said. "One of the most beneficial things is you're taking carbon out of the atmosphere, decreasing greenhouse gases."

The Karnofskis are interested in enlarging their operation to commercial proportions. That's what drew them to the renewable energy conference. It included two workshops titled "The Promise of Biochar: Generate Energy, Improve Soils, Store Carbon."

Karnofski has been visiting with Kathleen Sayce, an ecologist who works at Shorebank Pacific in Long Beach, Wash., as an associate vice president and science officer.

She's interested in biochar as a soil improvement mechanism.

Adding carbon material to sandy soils, in particular, helps the soil retain moisture and nutrients, she said. Adding compost helps plants absorb fertilizer and adding charcoal

helps even more. Besides, it decomposes slowly; therefore, its benefits last.

"This is a more long-term solution, adding carbon to the soil by adding charcoal to the soil," Sayce said.

Her discussions with Karnofski have had more to do with their common interest in biochar than her job as a banker, she said. The bank is not financing any renewable energy projects for the Karnofskis.

"I don't think it's quite ready for prime time yet, but it's coming," Sayce said. "It's definitely something we want to keep an eye on."

Karnofski recognizes he faces a major challenge.

"At this point, it's going to be difficult to make money," he said. "At best, it's break-even right now. It's best done as co-generation with farmers and industries."

However, biochar might be produced commercially using waste streams on the Long Beach, Wash., peninsula, he said. To that end, Karnofski has been invited to make a presentation April 20 to the Pacific County Solid Waste Advisory Commission.

Diane Carter, an owner of Peninsula Sanitation and a commission member, said she invited him to address the commission after he stopped by her office a few weeks ago.

"Any kind of a project would have to come through us," she said.

Attending the renewable energy conference also gave the Karnofskis other ideas for tapping nature for energy production on the Long Beach peninsula. Jim said hydroelectric project could be built and so could wind projects.

"We have constant wind," he said. "Why can't we harvest that?"

He's also thinks Pacific County needs an industrial park.

Vera added, "We need positive incentives for people who want to create jobs."