Dredgings boost crop growth

By Susan Campbell
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Farmers could use local river-bottom dredgings to boost corn and other crop growth, making use of sediments that are filling up local disposal spaces.

The findings, released Monday in a study prepared for the Brown County Harbor Commission, showed corn yield and nutrients were higher in a one-acre plot spread with 30 tons of dredgings than in an identical plot covered with 100 pounds of nitrogen.

The plots on the Jerry Lancellotti farm in De Pere were spread with soil dredged from the Fox River and bay of Green Bay.

"We’re putting top soil back on the ground. That’s where I get real excited about this concept of beneficial reuse," said Michael Dovichi, vice president of Robert E. Lee & Associates, the engineering company hired for the study.

"Let’s do something that’s worthwhile, instead of just putting it in a landfill somewhere. There’s just a finite amount of topsoil in this world, and we’ve got to use it," Dovichi said.

Dovichi studied the effects of various sediments from the Fox River on corn yield and nutrient uptake. He found that the dredgings had a positive impact on crop growth.

One of the key findings was that the dredgings contained nutrients that were beneficial to the crops, such as nitrogen and phosphorus. The study also showed that the sediments could be used as a soil amendment to increase the fertility of the soil.

Dovichi recommended that the commission should consider a more extensive study next year using a larger field and earlier planting and studying the effects on different soils and crops.

In the meantime, Dovichi said he would submit his report to the state Department of Natural Resources to seek permission to market dredge spoils in the same manner as sewage sludge.

Dovichi said the dredgings would help benefit crops other than corn, and could be used on golf courses and for horticultural purposes if desired.

The presence of lead in the dredgings is the only chemical drawback, but Dovichi said the concentration is so low it isn’t a threat.