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Researchers studying algae for biofuel

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Slimy green algae may be an answer to the global oil crisis.

With a renewed interest in converting algae into biofuel, researchers are studying ways to cut costs and improve conditions for growing this marine scum.

“Algae represents a promising opportunity for renewable and sustainable fuels,” said Qiang Hu, director of the Laboratory for Algae Research and Biotechnology at Arizona State University.

“Many innovations and breakthroughs are required in many technical areas.”

Biofuel experts from around the country convened Friday at the Center for Marine Biotechnology at the University of Maryland Biotechnology Institute in Baltimore for a symposium on algal bioenergy.

Water, sunlight and carbon dioxide are needed to grow algae, which is abundant in the Chesapeake Bay. The algae contains oil that can be harvested and converted into fuel, using far less land and water than traditional agricultural products used for biofuel.

Algae also consumes rather than emits carbon dioxide, another benefit for the environment.

The interest in algae as fuel waned about 10 years ago when a report on the industry warned of exorbitant costs for the technology, said Yonathan Zohar, director of the center.

But now researchers are finding new ways to create ideal conditions and harvest the oil from the plant, making it a far more efficient biofuel source than corn, soybeans and grasses.

“The time is right now,” Zohar said.

One way to cut costs is to connect the algae farms with power plants, using the wastewater and carbon dioxide to feed the algae, said Feng Chen, a researcher at the Center of Marine Biotechnology.

“It doesn’t take a whole lot to grow algae,” said Feng, who studies samples of algae from the Bay.

Although copious amounts of sunlight are key for algae growth, Maryland’s climate is conducive for

some kinds of algae.

“There are different species here, but the yield might be as high,” Chen said.

The Chesapeake Bay Commission, a legislative group, has been exploring so-called “next generation” biofuels beyond corn-based ethanol, which has dominated the biofuel industry. A federal cap on how much biofuel can come from corn — a critical food source — has prompted researchers to explore other options.

In a report released this fall, the commission recommended states in the Chesapeake Bay watershed encourage the production of alternative biofuel sources on unused land, create economic incentives and provide funding for pilot projects.

“The Chesapeake Bay region is well-positioned to take leadership in this revolutionary shift to greener, renewable fuels,” the report states, “and to enjoy its economic and environmental benefits.”

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