



They Call Him

THE BIODIESEL MAN

Flint Holbrook

South Carolina native Flint Holbrook is working to further research in sustainable fuels. **BY CLAIRE VATH**

You could say that Flint Holbrook found his calling with a Dr. Pepper bottle and used vegetable oil. Sounds like a bizarre experiment, but it was Holbrook's high school FFA project, which put him on the fast track to much bigger things.

Holbrook has made waves in the biodiesel industry, speaking to groups and offering experience. A scholarship bears his name and he's part of the inspiration for a new building wing in his former high school. Around his community he's known as the Biodiesel Man, and he has his own ag news web site. And, oh yeah, he's only 20 years old.

The college freshman grew up on a few acres just south of Charlotte, S.C. His grandparents farmed, but Holbrook wasn't a farm kid. Yet when perusing the high school course catalog, agricultural education classes piqued his interest.

Upon joining FFA, Holbrook's longtime family friend, John Parris, who is also the state director

of public affairs for the FFA Association, made a request. "I shared that I wanted him to serve as state FFA president by the time he was a senior in high school," says Parris.

FUELING AN INTEREST. Holbrook initially knew little about biofuels. A few weeks into his first year of high school, a teacher talked about the energy crisis and mentioned biodiesel and its advantages to the farmer. After class, Holbrook went home and began fervently researching the subject, cataloging what he found.

A year later, he gathered supplies and home-brewed biodiesel batches in Dr. Pepper bottles. "Some were successful; some weren't," he recalls.

But his curiosity with alternative fuels was captured and he began to set his sights toward bigger endeavors. "A Dr. Pepper bottle of fuel isn't enough to run anything," he concedes. So he turned his sights toward building equipment capable of handling enough fuel to run a tractor.

Six months later, he had created a 100-gallon processor. Holbrook used restaurant oil to produce biofuel and ran it in tractors, Ford diesel pickups and some construction equipment. "I never had a problem with anything running," he says.

In tenth grade, Holbrook addressed a statewide

seminar on alternative fuels hosted by the South Carolina Soil and Water Conservation Society. “That presentation was so successful, he was invited to address conferences around the Southeast,” relates Parris.

Holbrook left high school behind with a bang. Parris’ hopes for Holbrook’s appointment as South Carolina FFA state president came to fruition, as did numerous awards, including being named Outstanding Young Entrepreneur in South Carolina and winning a national FFA Alternative Fuel Proficiency award.

BLAZING INTO THE MIDWEST. Once he left the small agriculturally-rich town of Clover, S.C., Holbrook moved to another area of farm country to attend Oklahoma State University and major in Biosystems and Agricultural Engineering. He received almost \$100,000 in scholarships.

College did nothing to dampen his enthusiasm for biofuel research, and he quickly signed on to two ongoing projects. The first works with the Oklahoma Bottling Company in Tulsa, which generally produces about four truckloads of waste a week, explains Flint.

“That’s about 40,000 gallons,” he adds, “which is a tremendous amount of waste. Fifteen percent of that is sugar, which can easily be made into ethanol.”

The other project is something Holbrook is really excited about: algae. Algae can generate 15 times more oil per acre than other plants currently used for biofuel. And Holbrook’s research team is looking to find a way to produce algae continuously, “rather than having to start new strains. Algae grows mostly in a one-week period,” he explains. “We always want to keep it to a one-week period.”

To do that, Holbrook and his team are working to measure growth rates, determine a control system that can handle measuring and adjust growth chambers to produce a maximum result.

SPEAKING UP FOR BIOFUELS. Though he whet his appetite by speaking to groups in high school, Holbrook still works to educate others about biofuels. And he’s got plenty to say on the subject.

The No. 1 thing he does is address misinformation. “We hear a lot about ethanol and hydrogen and fuel cells,” he explains. “A lot of the information is misdirected and taken out of context.”

Holbrook believes the United States has made considerable progress, but still has a long way to go toward finding alternative fuel sources. “We need to be extremely careful in how we look beyond that so we don’t get involved in fuels that aren’t worth it.”

And Holbrook doesn’t think the answer lies

with ethanol. “Corn ethanol increases petroleum consumption by 1.7% each year,” he says. “I don’t think we should give ethanol subsidies.”

So what is the solution? With a nod to one of his research projects, Holbrook believes sustainable fuel can be created using algae. But, he concedes, there are still major challenges—which his research team is addressing.

“We need to try to spread urgency to ag and others in hopes that they’ll pressure political representatives. I’d love to see farmers producing oilseed crops to create their own fuel,” he says.

While Holbrook is out there publicly championing biofuels, he’s also taken to other media platforms. Last winter he created a web site, agriscribe.com, to take ag news releases from large agricultural companies and put them all in one place, sortable by state and category.

And though it’s just in the planning stages now, his alma mater, Clover High School, plans to name a wing of a future building after him. In addition

to volunteering his time, Holbrook donated all his biodiesel production equipment to the school, and “they’ll set up a Renewable Fuels classroom,” he says.

The high school’s FFA chapter also has established the Flint Holbrook Agricultural Leadership Scholarship.

“South Carolina is fortunate to have a young man of Flint’s caliber preparing for an exciting career in alternative fuels,” says Parris. “The first scholarship will be awarded to an FFA member this spring.”

That’s quite a resumé for a 20-year-old. And Holbrook has no intention of slowing down. “I want to have a job in the ag field,” he says. “Whether it’s renewable energy or ag chemicals, I want to have an impact on the community and the people I’m around.”

Without a doubt, the Biodiesel Man has already made great strides in his community. “Knowing and working with Flint has been among the highlights of my professional career of more than 50 years,” says Parris. “He is definitely programmed for greatness.” ●



When he left his small corner of South Carolina Holbrook continued his biofuel research at Oklahoma State University.