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## Sunny Outlook



Boyer Farm creating healthier oils for Hoosier consumption

## By Shawndra Miller

»The past few summers, people driving on State Road 18 north of Kokomo have been treated to an arresting sight: vast fields of sunflowers in bloom. Black oil sunflowers, to be specific — all facing east as if about to march straight into the sunrise.

Though this crop is intended to be made into oil, the blossoms are as beautiful to look at as any garden-variety sunflower. "You see where people have been stopping to pick them," says Mark Boyer, who makes cold-pressed culinary oil out of both sunflower and canola seeds. He points out the stub of a stem near the road and laughs. "That's all right. We got plenty." This particular sunflower patch stretches three-quarters of a mile, and it's just a portion of his crop.

In fact, Healthy Hoosier Oil, based right here on the sixth-generation Boyer Farm near Converse, grows 350 acres of sunflowers and canola for its virgin oils. Mark and his father,

81-year-old Craig Boyer, run the operation together from a lean-to built onto a 1940s-era corn crib. (Mark's mother, Nancy Boyer, also helps out.) The air-conditioned facility boasts a small storefront/office, a bottling station, and behind that, the processing equipment that turns seeds into high-quality oils.

The rest of the Boyer family — two more grown children, 10 grandchildren and seven great-grandchildren — all live within five miles of the land that has stayed a family farm since 1848. Mark and his brother, John, grew up farming alongside their father. That was back when the operation included sows, dairy cows and beef cattle in addition to corn, beans and wheat (which they still grow).

"We raised all our own crops, our corn and silage and stuff," recalls Craig as he takes a seat behind the desk in the shop. "But that was my retirement, to quit livestock."

Mark quips that his dad is far from retired, though he did sell off the livestock in 1998 after sustaining a major heart attack. Doctors recommended that Craig slow down and change his diet.

A decade and a half later, those health concerns motivated the Boyers to experiment with producing healthier alternatives to cooking oil.

"He likes fried food, and he likes to eat," says Mark. "When he had to change his diet, he had to give up so many things that he missed." Mark and John had been growing sunflowers and canola for biodiesel, but they took the challenge of shifting to food-grade oils. After they started experimenting with culinary oils, the price of biodiesel fell, so turning their crops into table oils made good business sense.

"This was his vision," Mark says of his father.

With zero chemicals applied either on the fields or in the processing, Healthy Hoosier Oils' products live up to their name. Unlike

typical vegetable oils, which are extracted with solvents, these oils are extracted using pressure, not chemicals.

Mark explains chemical extraction this way: "The oil crop, whether that's canola, sunflower, soybeans, or whatever the oil crop might be, is blended with a solvent," he says. "In most cases (that's) hexane, which is a byproduct from making gasoline. Hexane removes oil from the crop, then it's brought back up to high heat, and the hexane is boiled off to be repurposed."

After the solvent boils off, the oil undergoes further chemical treatment. It's bleached and deodorized and finally treated with an antifoaming agent.

It's a completely different story here in the processing room of Healthy Hoosier Oil. A low-heat press and multiple filtration stages produce the unadulterated, flavorful, sunny liquid that will be bottled in the next room. Cold-pressing oils allows more nutrients to be retained, resulting in a high level of vitamin E, among other antioxidants.

Seeds stored in the repurposed corn crib are fed into the presses through tubes in an automated system. The presses extrude long black pencils of compressed black shells onto a conveyor belt, while oil drips into a covered trough.

The byproduct is shuttled up the conveyor belt to a bay where it will later be bagged as a non-GMO protein source for livestock feed, ready to be sold to other farmers. A nearby neighbor purchases all the canola byproduct for his pasture-raised pork, and the sunflower shells go all over the state.

Meanwhile the "fines" in the oil (bits of hull and solids) settle to the bottom of the trough to be turned out by a special auger. The unfiltered oil is pumped into a tank and from there through a stainless steel line to a filter press with multiple plates. Under constant low

pressure, the oil travels through the 1-micron filtration system, which is a bit like "grandma's cheesecloth," as Craig puts it.

By the end of the filtration process, the oil is ready for bottling and labeling.

Between batches of canola and sunflower, the equipment is steam-sterilized. "We use no chemicals, even in cleaning our equipment," says Mark.

The Boyers' commitment to healthy methods starts well before the processing of their crop. Farming practices are also geared toward health and sustainability. Minimal tillage and careful crop rotation help protect the soil, and the oil crops are never sprayed. Both canola and sunflowers form a canopy that shades out most weeds.

Because sunflowers are reliant on honeybees for pollination, they've partnered with Knightstown's Bastin Honey Bee Farm to install beehives on the land — another incentive to avoid chemicals on the oil crops.

"Our ancestors cleared a lot of this land," says Mark, "so sustainability is very important to us."

Canola gets a bad rap from some health-conscious critics because the Canadian government developed the plant in the 1970s. Its name stands for Canadian Oil Low Acid. However, despite these origins and concerns about genetic modification, Mark notes that the canola seeds he plants aren't treated to be herbicide-resistant.

And it turns out to be great for the soil because of its large tubular root. The big equipment used in farming row crops tends to compact the soil, but canola's roots combat that effect. With minimal tillage, the roots stay under the soil, reducing compaction and aiding drainage. Eventually the roots decay and become humus.

As a winter crop, canola is planted in the fall and harvested in early summer. That schedule makes way for short-season soybeans to go into the same field, another benefit.

While not as much of a showstopper as sunflowers, canola's blooms are also lovely, though short-lived. "Canola is bright yellow when it's blooming," says Mark, "and it's absolutely beautiful. Then it dries out and gets ugly. It sort of turns into a dead bush."

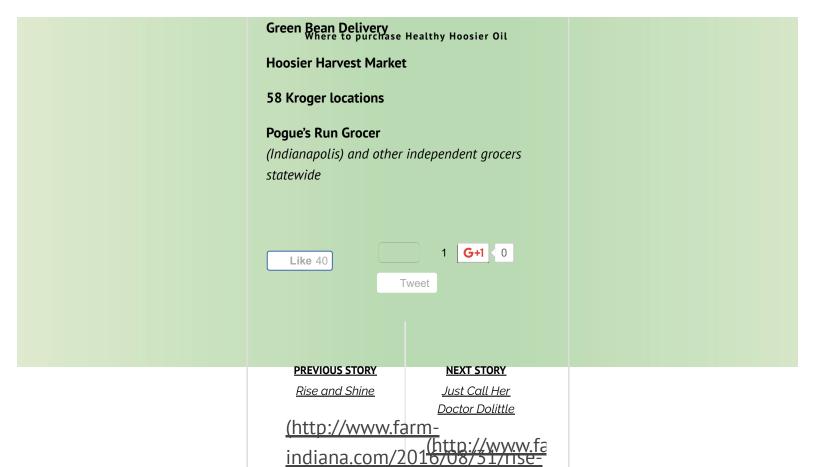
Neither crop is typically seen in Indiana, and the Boyers had no models for the food-grade pressing process they've created.

Noting that some neighbors might think they're nuts, Mark jokes, "I don't know if they're wrong." Marketing locally grown oils is different from selling homemade pies, pastured meats or other consumables that people could purchase on a daily or weekly basis. And it's a gamble, developing a crop that has no other use while gauging an uncertain market. But if the recent decision of Kroger to stock the oils is any indication, this operation is poised to keep growing and continuing to blaze new trails.

By blending canola and sunflower oil, the Boyers discovered they could make a cold-pressed oil suitable for deep frying. Unlike the industry standard fry oil, which has an ingredient list that includes three chemicals, this canola/sunflower blend is simply 100 percent oil — chemical-free and containing zero trans fats.

Up the road at Amboy Market, the bustling mom-and-pop grocery that was first to stock Healthy Hoosier Oil, owner Carol Miller says the products are extremely popular with her customers. "That's what people are wanting," she says, "a healthier alternative."

"People are more health-conscious these days," she says, "and when you learn that this one has chemicals in it" (pointing to a national brand) "and theirs does not, it's a no-brainer."



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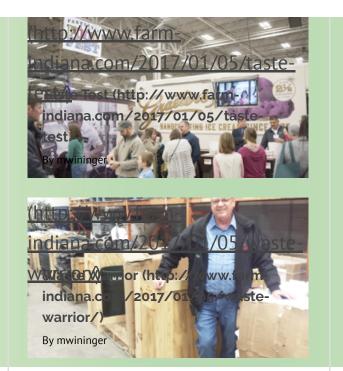
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