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Food Detective Speaks on Corn, Sustainable Farms

Acclaimed Author Discusses Impact of Corn on American's Diet and the Environment

“Our industrial food system is making us sick,” stated Michael Pollan, a naturalist, highly acclaimed author and journalism professor at University of California Berkeley. “Over 60% of our population is obese,” and “it all goes back to our production - or overproduction - of corn and soybeans.”

Mr. Pollan spoke as part of the Drew Heinz Lecture Series at Pittsburgh's Carnegie Music Hall March 5th, where he read excerpts from his critically acclaimed book, “The Omnivore's Dilemma: A History of Four Meals.” The third book by Pollan, which made several top-ten lists in 2006 and nominated for the National Book Critics Circle Award, brought to light issues re in what he dubs “the Industrial Food Chain.” He disseminated the origins of what Americans eat today and the impact of America's diet on farming and the environment.

Pollan's research began when he questioned why the human race has such a difficult time determining what to eat. With that, he began to ask, “What *am* I eating?” To help create answers, he became what he cleverly calls, a “food detective.” Pollan embarked on a food trek, tracking eatables backwards-from his plate, to the store, to the farm, and finally to the ground. He concluded, “Everything we eat begins with photosynthesis of plants...everything.”

So what are Americans eating today? Well, the answer may be surprising. According to Pollan, grocery store consumers across the country are made primarily of corn. Almost everything we eat comes from, or is made with, that golden vegetable grown in America's heartland. “The Mexicans used to be the corn people. Now, it's scientifically proven that Americans are composed of more corn than any other culture.”

Corn, or “maize,” contains a specific derivative of carbon called C-13. This particular atom allows corn to be modified into almost anything – and the food industry discovered its many uses. Corn sweetens our soda, is baked in our bread, fills our salad dressings, and makes up the oil which fries our food. Over 80% of grocery store labels list corn derivatives, like high fructose corn syrup, maltodextrin, xanthum gum, and corn oil.

Corn is also passed to us through consumable meat. As beef, pork and poultry are put on feeding farms, they are fed three times a day with corn. That corn gets transferred to us when we purchase grocery store steaks, chicken breasts, and pork chops to feed our family. “Corn is all around us,” Pollan said, “It is used in the glossy magazine covers lining the checkout lines, the linoleum floors in the store, and even in the paint covering the walls.” Corn is even inside the Twinkie (amongst other chemicals which come primarily from petroleum companies).

So, why is this much corn bad for us? The problem originates with the 88 million acres of the crop being planted on Midwestern farms. With increased demand from the food, and other industries, farmers must create ways to keep up demand. According to Pollan, the increased production comes with a high environmental cost.

With acreage running low, corn must be genetically engineered to grow with less sunlight, in less space. That amount of genetically engineered corn causes a huge nutritional drain on the farmer’s soil. To compensate, the farmers use large amounts of chemically engineered fertilizer. This fertilizer causes a nitrate runoff into nearby rivers and has environmental consequences. In Des Moines, Iowa, “blue baby days” are alerted when tap water nitrate levels are so high, people are not permitted to drink it. The nitrates ingested by drinking the water cause oxygen depletion in the blood, resulting in numerous infantile deaths. But the nitrate depletion doesn’t stop there.

Pollan noted a “dead zone” where the Mississippi River empties out into the Gulf of Mexico. Just off the coast of New Orleans, there is an area “in which 44 million gallons of water are uninhabitable by marine life.” The nitrates flowing from Iowan farms consume all water-soluble oxygen and don’t allow fish to breathe. Only certain types of algae are able to exist, causing a maritime wasteland.

And it’s not just the fertilizers. The chemicals farmers are utilizing as pesticides and herbicides are ruining our water and the food we eat. One such chemical is called atrazine. Atrazine, originally developed during WWII for chemical warfare, is currently sprayed on our farmlands to prevent bug infestation. Quantities as little as 1 part-per-billion of this chemical mutated lab frogs into hermaphrodites. The chemical gets absorbed into the corn and is passed along through the water. Pollan says, “We are consuming these products every day and don’t even realize it.”

Good food is out there, Pollan stated. He suggested investigating local alternatives to the industrialized food chain. He spoke of something rather unheard of these days – a self-sustaining

farm. This is a farm in which the animals, plants, and farmers work in synergy to create totally organic, all natural products. Pollan researched farms across the nation and came across one such farm in eastern Virginia. After much deliberation with the farm's owner, Pollan worked as a farm hand for two months gaining insight on how the system functioned.

Pollan stated the farmer had devised a way to move the cattle from pasture to pasture with portable fences. Once the cattle consumed the right amount of grass, as they do naturally, the cattle were moved through a gate to another area that needed grazed. Then, after a certain amount of time, chickens were then brought on the land in portable coops, to consume bugs and spread the waste left by cattle - which they naturally do. The cow and chicken waste acted as a natural fertilizer, helping the grass grow. After an adequate amount of time, when the grass was ready, the cycle repeated. Pollan stated, "Of course, moving these fences was hard and in my naiveté decided to go in June – when the days were longer than any other time of the year. It was one of the most grueling summers ever worked."

Pollan is a huge advocate for local farming. Non-industrialized farms, close to home, tend to provide an array of products and tend to use less chemicals. Not having to travel as far means a fresher, more natural product.

The Pittsburgh region is home to several organic farms. The Penn's Corner Farm Alliance, located in Shelocta, PA, is a cooperative farming institution that presented informational material in the lecture hall's lobby before and after Pollan's lecture. At this nearby co-op people can purchase one of three levels of co-op shares. Also labeled "community supported agriculture," the Alliance provides fresh produce, most of which are organic, as well as herbs, cheeses, and eggs. A participant chooses from a list of designated pick up locations around the Pittsburgh area and a full box of products awaits them. It is a "commitment between farmers and their community."

This type of farm offers a healthier alternative to grocery store shopping. Other institutions, such as the East End Food Co-op in Point Breeze, offer a similar alternative. Whole Foods also offers partial or totally organic products. But Pollan, who thoroughly enjoys shopping at his Berkeley Whole Foods Market writes, "you may be surprised to find many of these products come from as far away as Argentina."

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