

January 2009 COMMUNIQUÉ

Pork Report

WHOLE HOG SUSTAINABILITY

Before chef Jamie Bissonette demonstrated how to butcher a 140-pound pig for the audience assembled at a recent Chefs Collaborative workshop, he described the spread of charcuterie he'd brought along from the Boston-area restaurant where he works. Bissonette discussed techniques for making guanciale, head cheese, and pig's ear terrine. His uncommon charcuterie items were menu stars—delicious, brisk-selling, and profitable, said the chef.

Pork. Most chefs will tell you it's their favorite meat to work with. Between its fat, flavor, and versatility, mastering the art of cooking with pork—using “everything but the squeal”—has lately become a common goal for chefs across the country.

Most of this country's pork supply comes from an industrial system that puts the environment, animal welfare, and public health at risk. For chefs turned off by the lackluster flavor and unsettling back-story of industrially raised commodity hogs, this paper will examine how pork fits into the broader landscape of sustainability.

We will set out questions that we suggest you ask your supplier to find out what kind of pork you're buying. We'll look at the types of pigs you might encounter when seeking out alternatives to commodity pork. We'll talk with chefs who buy whole animals and make it work for their bottom line, and we'll look at the challenges small and mid-sized farms face when trying to get their products to the market.

First, ask the questions. Chefs interested in alternatives can query local farms and their suppliers to better understand the flavor, quality, and origins of the meat they're buying.

Ask the Questions

HOW AND WHERE WERE THE ANIMALS RAISED?

Whether or not the animals were raised in a confinement operation primarily addresses the environmental and animal welfare issues accompanying commodity pork. But it also gets at flavor, since commodity pigs have been bred primarily for rapid growth, lean meat, and large litters. These animals produce the pale, dull “other white meat,” not the dark, rich, marbled pork currently featured on many restaurant menus.

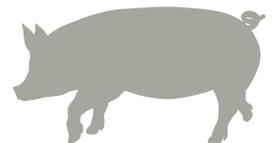
Breeding Interest

Chefs looking for tasty pork that's been humanely raised with low impact to the environment will eventually discover the range of pig breeds being raised on traditional farms across the country. Because pigs fit into small scale farming operations better than cows or sheep, explains Don Bixby of the American Livestock Breeds Conservancy, a lot of these older breeds are found on small diversified farms.

Industrially raised pigs have been bred for high fertility, leanness and rapid growth, not necessarily for flavor or versatility. By contrast, so-called heritage breeds—and modern crosses of these breeds—are favored by farmers and chefs for their deep and nuanced flavors, derived both from diverse diets and the slow growth patterns that allow them to develop intramuscular fat, also known as marbling.

Many chefs have become familiar with Berkshire pork, which has been a popular farm and commercial breed for centuries. But a number of rare breeds are making their way into restaurant kitchens, as well.

TAMWORTH: When Chefs Collaborative and the American Livestock Breeds Conservancy teamed up on a pig fabrication demonstration at ALBC's annual conference this fall, the pig we used was a Tamworth. Known for the high-quality bacon they produce, Tamworths were first brought from England to the U.S. in 1882, according to ALBC. Their meat is lean relative to many other heritage breeds, but the slow-growing Tamworth's intramuscular fat is notable.



There are a number of sustainable alternatives to raising pigs in confinement.

Because they can help turn soil and eat farm byproducts, pigs are a productive addition to diversified farms, where a variety of crops and livestock are raised. Emile de Felice of Caw Caw Creek Farm in St. Matthews, South Carolina raises his pigs in what he calls a “managed wild setting,” where the animals spend part of their time rooting around in the woods. And farmers in hog-producing states like Iowa and North Carolina use structures called “hoop houses,” that provide shelter and deep straw bedding for the pigs.

WHAT DID THEY EAT?

In industrial settings, pigs are fed a corn and soy-based diet. But according to the Union of Concerned Scientists, their feed can legally contain rendered animal parts, antibiotics, and other drugs, plastics, and manure. Between the resource-intensive business of growing corn and soy for feed and the feeding of animal waste and byproducts to livestock, diet alone is a deterrent from buying industrially raised pigs.

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A pig's diet will affect the flavor of the finished product, which is part of the reason why some hogs raised on traditional farms have exceptional flavor.

Diets supplemented with farm byproducts, like windfall apples or leftover whey from cheese making, for example, will influence the pork's flavor, as will a diet that includes acorns and forage if the pigs are raised in pasture or woodland settings.

WERE THE PIGS FED ANTIBIOTICS?

On traditional farms, antibiotics are sometimes used to treat sick animals. But the widespread use of antibiotics in U.S. industrial livestock operations is another story. These drugs are often added to animal feed to stimulate growth and to treat or prevent disease outbreaks in dense confinement operations. The Union of Concerned Scientists estimates that 70% of the antibiotics and antimicrobials in the U.S. are used in livestock production.

The risk to people is in the exposure to antibiotic resistant bacteria through our food. In the science and public health communities, there is consensus that the recent rise in cases of food-borne illnesses is tied to our increased exposure to antibiotic resistant bacteria. There's concern that drug-resistant strains of bacteria will continue to evolve and spread, triggering a global health crisis.

HOW WAS THE WASTE HANDLED?

Depending on the size and type of operation where the pigs are raised, their waste can either be an asset or a liability. Manure is an asset on traditional farms where it is turned into compost and used to enrich the soil. In hoop houses, pig waste is often mixed with the deep, dry bedding material that covers the ground where the animals live. Mixing the waste and bedding helps keep the pigs warm as it breaks down into compost.

In high-density industrial operations, waste is most often stored in liquified form, either in giant ponds called “lagoons,” or in deep pits, then sprayed onto fields. The handling and disposal of pig waste in this way poses enormous environmental and public health risks. Lagoons and pits can leak or flood, sending untreated waste into fields and waterways. When fields are sprayed with industrial pig waste, the fields often can't absorb all of the liquid, causing the waste to run off into the surrounding watershed. Spraying waste also releases toxic airborne particles into the atmosphere.

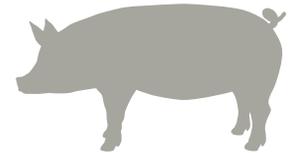
OSSABAW: This rare breed received attention as a subject in author Peter Kaminsky's book, *Pig Perfect*. Ossabaws are a “feral breed that is unique to North America, a distant relative to the renowned Iberian hog,” wrote Chuck Talbott et al in a 2005 research paper on the Ossabaw. These animals thrive in a woodlands setting, foraging for their food and developing abundant levels of “healthy fats”—filled with the oleic acid found in olive oil. Like Iberian hogs, Ossabaws make spectacular cured ham.



LARGE BLACK: These large, hardy pigs are thought to have descended from Chinese breeds.

They didn't have a major presence in the U.S. until the 1980's. New York City area chefs might be familiar with Large Blacks through Flying Pigs Farm, a Shushan, New York farm that raises a number of heritage breeds and markets them to restaurants. This breed is well suited to outdoor production and their meat is tender and fine-grained, says hog farmer Emile de Felice.

Many traditional farms raising hogs use breed crosses—crossing their favorite features of one breed with those of another to best



match the environment and system where the animals are being raised. This practice helps show why it is important for chefs (and consumers) to support heritage breeds by building up demand for their meat.

Basically, if farms don't have a market for their meat, it's not very viable to raise the animals. But without people raising the different breeds, we risk a loss to the genetic diversity of our food system. Without the genetic diversity that these different hog breeds supply, our food supply will become more vulnerable to disease outbreaks and other risks. Chefs can play a key role in supporting biodiversity efforts by helping to build markets for rare animal breeds.

If you're interested in finding heritage breeds being raised in your area, contact the American Livestock Breeds Conservancy (www.albc-usa.org), who can connect you to their national network of producers.



Going Whole Hog

If you're looking for rare breeds (see sidebar pages 1-2), you'll likely find them on small farms. And if that's the case, you have a good chance of being able to buy these animals whole. For a growing number of Chefs Collaborative members, working with whole animals (and lesser-used cuts or parts) is a satisfying and practical way to develop culinary skills and technique.

When you can break down a 100 or 200-pound animal, use all of the parts in a range of applications, and turn a profit off of your labor, says chef Michael Tuohy, formerly of the Woodfire Grill in Atlanta, "you become a better chef in the end."

Matt Jennings, owner of La Laiterie and Farmstead in Providence, Rhode Island, buys whole Tamworth pigs from a friend's nearby farm. He pays \$3.68 per pound (as compared to less than \$0.80 per pound on the commodity market) for the whole animal. "You gotta figure out how to make

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a profit with that kind of expense," says Jennings, who uses every scrap of meat and fat he can. "But I think it's worth the time and money it takes to learn how, because breaking down a whole animal is one of the few things left in a kitchen that really connects you not only to the food but to your craft."

When working in Atlanta, Chef Tuohy bought Berkshire pigs every other week from a nearby farm. He paid \$3 per pound, a cost that forced him to be thrifty, he says. "You make your money back on total utilization," says Tuohy, who has developed recipes for fresh and cured sausages, coppa di testa, pancetta, lomo, and more. He makes stock from the bones, uses all of the fat and the scraps—if he uses absolutely everything, he says, "I've figured out that one \$600 pig can generate \$3000 worth of revenue for me."

To Market, To Market

For many restaurants, buying whole animals directly from producers isn't a practical model. Or they may find that they need more pork than their local farm can supply. When working with suppliers, chefs can ask about aggregator models, like Niman Ranch, for example. Aggregators contract individual farmers to raise

animals according to the company's set of standards. The company then brands, markets, and distributes the pork on a regional or national scale.

Steady supplies of local or regional pork can be hard to come by not for lack of demand, says Jennifer Curtis, who runs NC Choices, a North Carolina network of sustainable hog producers. Central to the issue is the lack of appropriate infrastructure required to process the animals and bring them to market.

The consolidation and integration of the hog industry means that slaughterhouses are often owned or controlled by the same companies that raise the pigs—so independent producers have a hard time finding processors they are able to work with. Meanwhile, independent processors are disappearing.

If pig farmers could come together to create economies of scale, then maybe chefs in a given city or area could join forces to secure contracts for the pork.

Aggregation is a model that could work on a regional level, says Bob Perry, Chef and Coordinator of the Food Systems Initiative at the University of Kentucky. It's a matter of building alliances between farmers, restaurants, and consumers. If pig farmers could come together to create economies of scale, he suggests, then maybe chefs in a given city or area could join forces to secure contracts for the pork. This type of cooperation, says Perry, is needed for small-scale farmers to scale up their operations and meet market demand.

For the restaurant business, a cooperative or aggregator model would also allow for a higher volume of sustainable pork on the market. Chefs who aren't set up to do their own fabrication could still serve pork from a nearby and trusted source.



Ultimately, seeking out and maintaining sources of sustainably raised pork takes extra effort on the part of chefs. But those who work this way are convinced that the additional investment of time and money is worth it in the end—for the higher quality product as well as for the chance to build the market and support producers who are doing right by their animals, the environment, and the public.

Additional resources:

RECENT REPORTS ON INDUSTRIAL FARM ANIMAL PRODUCTION:

CAFOs Uncovered: The True Cost of Confined Animal Feeding Operations, by the Union of Concerned Scientists.

http://www.ucsusa.org/food_and_environment/sustainable_food/cafos-uncovered.html

Putting Meat on the Table: Industrial Farm Animal Production in America, by the Pew Commission on Industrial Farm Animal Production.

http://www.pewtrusts.org/our_work_report_detail.aspx?id=38442

RECOMMENDED BOOKS ABOUT WORKING WITH PORK:

Charcuterie: The Craft of Salting, Smoking and Curing by Michael Ruhlman and Brian Polcyn

Pig Perfect: Encounters with Remarkable Swine and Some Great Ways to Cook Them by Peter Kaminsky

Cooking by Hand by Paul Bertolli

Charcuterie and French Pork Cookery by Jane Grigson

The River Cottage Meat Book by Hugh Fearnley-Whittingstall

The Whole Beast: Nose to Tail Eating by Fergus Henderson

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Chefs Collaborative works with chefs and the greater food community to celebrate local foods and foster a more sustainable food supply. The Collaborative inspires action by translating information about our food into tools for making sustainable purchasing decisions. Through these actions, our members embrace seasonality, preserve diversity and traditional practices, and support local economies.