READY FOR BRINE TIME

Salt and spices put old-fashioned flavor back into modern meats

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Wednesday, March 25, 1998

URL: http://www.sfgate.com/cgi-bin/article.cgi?file=/chronicle/archive/1998/03/25/FD107260.DTL

Have you had it with tasteless, juiceless pork chops and sawdust chicken breasts? Many professional cooks have, too, which is why they're turning to an age-old technique to restore the flavor and moistness that many meats used to have naturally.

In a growing number of restaurant and home kitchens, brining is putting the juice back into pork chops and at least some taste back into factory-raised chickens. By soaking the meat for hours or days in a seasoned salt-water solution, cooks find that they can transform lean pork and poultry with minimal cost and effort.

``This brining, it's become an urban legend,'' says Pam Anderson, Cook's Illustrated executive editor who has written about brining for the magazine and jokingly calls herself ``the brine queen.'' Anderson once roasted more than 30 turkeys to find the best cooking method, settling on an overnight brine as an essential first step. ``Every time we do a poultry story now,'' says Anderson, ``we find that salt is the answer.''

With brines, cooks like Anderson are trying to compensate for the shortcomings of modern animal husbandry. Chickens raised to market weight quickly on carefully formulated feed don't have the flavor of those old-time barnyard hunt- and-peckers. Nor does pork have the taste appeal it used to. Bred for leanness to accommodate contemporary concerns about fat, American pigs are 50 to 70 percent leaner than they were 20 years ago, says East Bay sausage maker Bruce Aidells. Fat, whatever its other failings, contributes moisture and flavor.

``When they decided to market pork as the new lean white meat, they completely ruined the product,'' complains Nancy Oakes, chef at Boulevard in San Francisco (and Aidells' wife). ``If you cook pork loin at home, you end up with this hard, dry, very lean white meat.''

In response, Oakes began brining pork several years ago at L'Avenue, her former San Francisco restaurant. At Boulevard, a spit-roasted pork loin, brined for four days, is a menu fixture, and brined turkey breast with applesauce is a favorite staff meal.

Aidells, too, is a brining convert. His forthcoming book on meat, due this fall from Chapters Publishing, will include a small treatise on the practice. ``To be honest with

you," says the meat maven, ``unless you're really careful, it's damn near impossible to produce a decent pork chop without brine."

The succulent cider-cured pork chop at San Francisco's 42 Degrees testifies to brining's merits. Chef Jim Moffatt swears by the technique, not only because it infuses the meat with flavor but because it gives the kitchen a larger margin of error. A brined chop will stay moist even if it's cooked a little too long.

By what mechanism does a little salt water work such magic? ``It's our old friend osmosis," says Harold McGee, the Palo Alto specialist in the science of cooking. ``If there's more of a diffusable chemical in one place than another, it tries to even itself out."

Because there's more salt in the brine than in the meat, the muscle absorbs the salt water. There, the salt denatures the meat proteins, causing them to unwind and form a matrix that traps the water. And if the brine includes herbs, garlic, juniper berries or peppercorns, those flavors are trapped in the meat, too. Instead of seasoning on the surface only, as most cooks do, brining carries the seasonings throughout.

Aidells calls this technique ``flavor brining" -- done not for preservation (which would require a saltier solution and longer immersion) but for enhancing texture and taste. Even a couple of hours in a brine will improve bland Cornish game hens, says Anderson, or give chicken parts a flavor boost before deep-frying or grilling.

Brines vary considerably from chef to chef, as do recommended brining times. But generally speaking, the saltier the brine, the shorter the required stay. And, logically, the brine will penetrate a Cornish game hen or duck breast much faster than it will penetrate a thick muscle like a whole pork loin or turkey breast. Meat left too long in a brine tastes overseasoned and the texture is compromised, producing a soggy or mushy quality.

Most cooks start their brine with hot water, which dissolves the salt and draws out the flavor in the herbs and spices. But they caution that the brine should be completely cold before adding the meat or it will absorb too much salt.

By playing around with the liquid base and the seasonings, chefs give their brine personality. Some use apple juice or beer for some or all of the water. The smoked turkey that Jeff Starr of Stags' Leap Winery produced for a food editors' conference in Napa Valley last year was brined in orange juice, rice wine vinegar and apple cider vinegar; some who tasted it swore they would never cook a turkey any other way again.

Seasonings can run the gamut from thyme, rosemary, bay leaf and garlic to cinnamon stick, star anise or vanilla. Many cooks put some sugar in their brine to sweeten the meat and make it brown better when cooked. Others avoid sugar, arguing that it makes everything taste like ham.

Whatever their recipe, brining advocates keep looking for other uses for their favorite technique. Anderson says some people brine shrimp for half an hour; she herself has begun soaking chicken parts in salted buttermilk before frying to get the benefits of brine with the tenderizing effect of the buttermilk. If cooks like Anderson and Aidells continue to preach the gospel of brining, diners can kiss sawdust chicken goodbye.

WHAT THE PROS KNOW

Here are some tips to start you in the brining business:

--A heavy-duty plastic tub, earthenware crock, stainless-steel bowl or even a re-sealable plastic bag can work as a brining container as long as the meat is fully submerged. Weight with a plate if necessary to keep the meat fully covered by brine.

--To determine how much brine you'll need, place the meat to be brined in your chosen container. Add water to cover. Remove the meat and measure the water.

--Start your brine with hot water to dissolve the salt (and sugar if using) and to draw the flavor out of any herbs and spices. Chill brine completely in the refrigerator before adding meat.

--Although some cooks prefer lighter or heavier brines, 1 cup of salt per gallon of water is a happy medium. Use kosher salt that has no additives.

--Experiment with seasonings. Salt is essential, but everything else is optional. Consider garlic, ginger, fresh herbs, juniper berries, clove, cinnamon stick, vanilla bean, mustard seed, coriander seed, star anise, hot pepper flakes or Sichuan peppercorns. To give pork a sweet edge and encourage browning, add 1/2 cup sugar to each 2 quarts of water.

--You don't need to rinse meat after you remove it from the brine unless the brine is highly salted (more than 1 cup salt per gallon).

--Don't salt brined meat before cooking; it is already salted throughout.

--Don't reuse brine.

-- Janet Fletcher

HOW LONG TO BRINE

The thickness of the muscle, the strength of the brine and your own taste determine how long to brine an item.

For a moderately strong brine (1 cup salt to 1 gallon water), the following brining times are rough guidelines.

If you aren't ready to cook at the end of the brining time, remove the meat from the brine, but keep the meat refrigerated.

--Shrimp: 30 minutes

-- Whole chicken (4 pounds): 8 to 12 hours