

Turkey Basics

by Dan Gill, Ethno-Gastronomist



This is the first turkey I ever smoked

Cooked on my new Weber Smoky Mountain in 1998

*I was hooked -
Little did I know it would launch a career
culminating in "Something Different"*

I know a thing or two about turkeys. I was raised on a turkey farm and hold an advanced degree in Poultry Science. Growing up on the farm, we bred, fed, hatched, raised, dressed, cooked and ate a lot of turkeys. At one point we hatched about 400,000, raised about 40,000 per year and had the largest turkey hatchery East of the Mississippi. At the store, we smoke-cook turkey breasts at least once a week and custom-smoke breasts or whole turkeys for customers. We use homemade turkey stock as the basis for most of our soups and The Virginia Sandwich spread, made with smoked turkey and country ham, is our signature sandwich.

Turkey is traditionally associated with fall holidays. Under natural conditions, poults (baby turkeys) hatch in the spring and are not ready for market until fall. Prior to the 1940's, there was no commercial turkey industry and turkey was a special treat reserved just for holidays. Turkeys were raised by small farmers and often died before reaching market size. It was then found that turkeys were susceptible to several diseases carried by chickens. Simply removing turkeys from the proximity of chickens and contaminated ground significantly reduced disease problems. This discovery and the availability of sulfa drugs and antibiotics allowed for the establishment of large turkey farms such as ours. Birds raised in the early days were thin with narrow breasts. Geneticists and breeders quickly developed "broad breasted" and hybrids strains. We had a national champion once that dressed out right at 50 pounds. He was displayed in the window of Marshall's Drug Store in Urbanna and given to an orphanage.

World War II marked the real turning point in the fledgling turkey industry. The economy improved, jobs were plentiful, demand for meat and poultry was high and technology provided for improvements in all segments of the industry. Prior to the war, if you wanted a Thanksgiving or Christmas turkey, you went to the farmer or a live market and picked out your bird "on the hoof". You could either take it home live and deal with it yourself or have it "dry-picked" on the spot and handed to you "New York dressed" with the head, feet and viscera intact. Eviscerated, dry-picked turkeys were also packed in

wooden barrels for rail shipment and hung up in shops for sale. Dry-picked birds have a longer un-refrigerated shelf-life than turkeys that are scalded and wet-picked as long as they are kept absolutely dry - even one drop of water activates bacteria on the skin and the birds quickly spoil. As the industry grew and refrigeration improved, birds were wet-picked and packed in *Cryovac* bags.

When we operated our small processing plant, we put the dressed turkeys in large vats filled with water and ice to chill overnight, then packaged them the next day. Daddy said we chilled them overnight to “remove the animal heat”. Actually, the overnight chilling allowed time for rigor mortis to take place and for the meat to become tender prior to being frozen or sold as “fresh”. Meat and poultry is most tender when cooked immediately after slaughter and before rigor mortis sets in.



Goats and lambs are often handled this way, especially in Mediterranean and Middle-Eastern countries. Once the rigor processes begin, muscles contract and the meat is exceedingly tough until rigor is over and the muscles relax again, 12 to 24 hours in an unfrozen state. In modern processing plants, dressed birds are quick-chilled and flash frozen. It is therefore possible to thaw them quickly and cook them while they are still tough. This is one reason to thaw poultry slowly in the refrigerator and another good reason to brine overnight.

Today, the unwary consumer is faced with several confusing choices when shopping for a commercially processed turkey: 1) Fresh or frozen? I always opt for frozen and only partly because I am a skinflint - stores often sell frozen turkeys as “loss leaders” during holidays. I also know they were frozen immediately after being processed. “Fresh-dressed” birds may have been processed weeks ahead of time, treated with anti-bacterial agents to extend shelf life and then sold at a premium. When you find a good deal, pick up several of the largest toms that you can find and stick them in your freezer for future meals. 2) Self-basting or not injected? I opt for non-injected. Self-basting birds are “value enhanced”, meaning the consumer is charged extra for water and seasonings. I can accomplish the same thing by brining overnight. 3) Toms or hens? For any given breed, toms (males) are larger at maturity and have longer bones, most noticeably in the length of the leg bone. For larger breeds, mature hens will dress out in the 12 to 16 pound range and toms will range from 16 to 30 pounds or more. There is no appreciable difference in taste or tenderness, but yield improves with larger birds of either sex. In other words, yield will be much better with a 16-pound hen or a 25-pound tom when compared to a 16-pound tom.

If you have several days and extra room, thaw your turkey in the refrigerator. Otherwise, remove the bag and thaw your turkey in a pot in the sink with slowly running cold water or change the water every 30 minutes. Never leave a turkey on the counter to thaw as all of the (now active) bacteria are on the surface, which can warm to the danger zone while the interior is still partially frozen.

For a 20-pound non-basted bird, mix up a brine with at least a quart of buttermilk, an equal amount of water, 1 ½ cups salt, ½ cup sugar or molasses and ¼ cup black pepper. Find a plastic, glass or stainless container slightly larger than the turkey, cover with brine (you will probably have to add some water and buttermilk) and put in the refrigerator overnight. Alternatively, put the turkey and brine in a large plastic bag and put it in an insulated cooler with some ice.



When you are ready to cook, pre-heat your oven and place your bird breast-up on a rack in a roasting pan with a little water in the bottom to keep the drippings from scorching. The recommended temperature in a conventional oven is 325° F. Small birds can be cooked a little hotter and large birds should be cooked at a lower temperature. Reduce temperatures by about 25 degrees for convection ovens. Brined birds can safely be cooked at a lower temperature. They also cook faster and are more tender and juicy than un-brined turkeys. I cook large brined turkeys and breasts at about 275° F in the pits and convection ovens at the store.

Use published cooking times only as a rough planning guide and allow an extra 30 minutes or so for the bird to rest before carving. Always use a good accurate thermometer and cook to 165° F in the thickest part of the breast. At 170° F the breast begins to dry out. Cook stuffing separately. By the time the stuffing reaches the required 165° F, the breast meat will be overcooked and dry. Lastly, the skin can be basted several times, preferably with butter, during the last half of the cooking time to help it brown and crisp evenly.

Remember those cheap turkeys in the freezer? After the holidays, thaw one and remove the legs and wings - they are great deviled, braised, smoked or grilled. Next, remove the breast meat from the bone. It's easy: just cut down each side of the breastbone and follow the bone down and out. The breasts can be sliced across the grain into turkey steaks or cutlets to be marinated, or breaded and fried, or oiled and grilled, or diced for stir-fry or a Thai-style curry paste-peanut-pineapple-coconut milk concoction simmered until the turkey is done and served over rice. No measurements necessary – just have fun. Leave the other breast whole for grilling or baking. Possibilities are limitless and turkey takes

seasoning and flavors so well that you can do practically anything with it. Break up the carcass so that it will fit into a stock pot, cover with water, throw in a few carrots, a couple of onions, some celery and bay leaves and bring it to a simmer for a few hours, then strain. Now you have a flavorful, nutritious stock for any soup you care to throw together. By the time you are done, you will have fed a family with low-fat, nutritious, interesting and healthy meals for a week for what one meal in a restaurant would cost – and all without much effort.

Deviled Turkey Legs: This is an old family favorite. We usually used big drumsticks, but wings and thighs work well too. Make four or five long slits in the drumsticks, stuff with yellow mustard and douse well with Worcestershire sauce. Brown in a hot skillet. The slits will open and you can stuff in more mustard and douse again with Worcestershire. Repeat several times during the first 20 minutes of braising. If you think you are using way too much mustard and Worcestershire, you are probably doing it about right. Add a little water, cover and braise for an hour or so, turning occasionally, until the meat is fully tender. Remove the legs and deglaze the pan with only enough water to make a rich, dark brown sauce. Serve with rice.

For further information, tips and recipes, visit the National Turkey Federation website at www.eatturkey.com. Related subjects covered in previous writings, published in Pleasant Living and found in the “Blurbs” section on the pine3.info web page, include “THE Virginia Sandwich”, March – April 2005; “The Magic of Buttermilk”, May – June 2006; “Barbecue 101 Part III: The Meat”, May – June 2007; and “Barbecue 101 Part IV-B: Seasoning Methods”, May – June 2008.

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