

AQUA *chef*®



COOKBOOK

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chef®

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**The AquaChef Cookbook is filled
with delicious, gourmet recipes
for you to try with your new
AquaChef Cooking System!**

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INTRODUCTION

Finally an answer to the hassle of home cooking! AquaChef is the revolutionary cooking aid that not only cooks your food, but does it well. AquaChef cooks your food in a water bath at a controlled temperature, giving you consistently fantastic results. Using a gourmet chef cooking technique developed in France, sous-vide, the AquaChef can transform ordinary food into delectable dinners. Sous-vide (pronounced *sue-veed*) is French for "under vacuum", and is a method of cooking by which you seal food in airtight plastic bags and cook in a water bath at the precise temperature at which the food is perfectly prepared. Sealing the food in sturdy plastic bags keeps in juices and aroma that would otherwise be lost in the cooking process, resulting in much higher succulence.

The temperatures at which you cook in the AquaChef are typically much lower than normally used for cooking because traditional cooking methods overcook the outside to get the inside to the right temperature. With the AquaChef, you simply prepare *all* the food to the perfect temperature - inside and out.

It should be noted, that you should never feed raw or under cooked foods to infants or young children, pregnant women, older adults, or those who are immune compromised.

For more information, videos, and recipes on how to cook with the AquaChef, or to review an extended version of the AquaChef cookbook, please go to: www.gourmetcookingonline.com

GETTING STARTED

-Sous Vide Eggs-

Boiling eggs is an easy recipe and a great way to get acquainted with your AquaChef. An egg has two distinct parts that harden or coagulate at different temperatures, and because of this, cooking an egg the conventional way consists of guesswork and chance. Now the AquaChef has solved the various problems of boiling an egg with science, giving you a perfect egg every time.

Ingredients:

- 1 large Chicken Egg in shell

Directions:

Step 1: Prepare the AquaChef & Decide on Egg Type

Remove the basket from your AquaChef and set it aside. Fill the AquaChef with approximately 3.5 liters of water. Plug it in and turn it on. Set the AquaChef's temperature to 165° F for a hard-cooked egg, and press the start button to preheat the water. The water will be preheated when the Indicator light changes from Red to Blue.

Step 2: Prepare the Eggs

Make sure your eggs are clean and have no cracks. For this recipe you will not need to vacuum pack the eggs.

Step 3: Cooking

Once the AquaChef is preheated, set the cook time on your AquaChef to 45 minutes. Then place the eggs in the cooking basket and place it carefully into the AquaChef and put the lid on. Once the time is up the AquaChef will beep. Carefully remove the basket from the AquaChef, as it will be hot. Remove the eggs from the basket and eat them as soon as the outside temperature is the desired coolness.

BEEF AND OTHER RED MEATS

Beef and other red meats often make the most delicious meals, but can be tricky to cook. AquaChef provides you with guaranteed success every time you want to turn even the cheapest meats into fantastic meals. With refrigerated meats, you will generally be cooking anywhere from 1 to 8 hours, depending on your cut and quality. It is important to remember that you should always keep your meats refrigerated or frozen, and never for longer than the expiration date indicates. Also never serve raw or un-pasteurized foods to those with susceptible immune systems.

BEEF RECIPES

-Tri Tip Steak with Peppercorn Sauce-

**for the AquaChef
(serves 2-4)**

Ingredients for Tri Tip Steak:

- 1 Tri Tip Steak, about 1-1.5" thick
- Salt and Pepper to taste

Ingredients for Peppercorn Sauce:

- 1 tbs Olive Oil
- 1 Shallot, minced
- 2 tsp Black Pepper, freshly ground
- 1 cup Heavy Cream
- Salt to taste

Directions:

Step 1: Prepare the AquaChef

Remove the basket from your AquaChef and set it aside. Fill the AquaChef with approximately 3.5 liters of water. Plug it in and turn it on. Set the AquaChef's temperature to 140° F for medium and press the start button to preheat the water. The water will be preheated when the Indicator light changes from Red to Blue.

Step 2: Prepare the Tri Tip

Using the Salt & Black Pepper, season the meat lightly (or to taste), and put in plastic bag. Seal the bag and vacuum out as much air as possible.

Step 3: Cooking with the AquaChef

Once the AquaChef is preheated, set the cook time on your AquaChef to 2 hours. Then place the Tri Tip in the cooking basket and place it carefully into the AquaChef and put the lid on.

Step 4: Making the Sauce

Using the 1 tbs of Olive Oil, coat a pan or skillet at medium heat. Add the Shallots, and sauté until translucent. Add the freshly ground Black Pepper to your sautéed Shallots and mix. Next add the 1 cup of Heavy Cream and mix. Let the sauce cook for a minute to thicken slightly. Add salt to taste.

Step 5: Searing the Tri Tip

Once the time is up, the AquaChef will beep. Carefully remove the basket from the AquaChef, as it will be hot. Remove the Tri Tip from the bag and dry lightly with a paper towel and place the Tri Tip in the pan and sear each side for about 1 minute. Place the Tri Tip on a plate, add the sauce as a topping, and serve.

-Sirloin Roast with an Herb Crust-

**for the AquaChef
(serves 4-6)**

Ingredients for Roast:

- 1 4 lb Sirloin (or similar beef roast)
- 4 Garlic cloves
- 3 Rosemary sprigs, fresh
- Salt and Pepper to taste

Ingredients for Herb Crust:

- 3 tbs Olive Oil
- 3 tbs Thyme, chopped
- 4 Garlic cloves
- 2 tsp Salt
- ¼ cup Breadcrumbs

Directions:

Step 1: Prepare the AquaChef

Remove the basket from your AquaChef and set it aside. Fill the AquaChef with approximately 3.5 liters of water. Plug it in and turn it on. Set the AquaChef's temperature to 140° F for medium and press the start button to preheat the water. The water will be preheated when the Indicator light changes from Red to Blue.

Step 2: Prepare the Roast

Sprinkle the Roast lightly with Salt and Pepper. Put the seasoned Roast in the bag with the Rosemary and Garlic.

Step 3: Cooking with the AquaChef

Once the AquaChef is preheated, set the cook time on your AquaChef to 8 hours. Then place the Tri Tip in the cooking basket and place it carefully into the

AquaChef and put the lid on.

Step 4: Making the Crust

Preheat conventional oven to 425° F. Finely chop the Thyme, and crush Garlic into a medium size bowl. Add the Thyme, Salt, Breadcrumbs, and Olive Oil to the bowl and mix all the ingredients together.

Step 5: Cooking the Crust

Once the time is up, the AquaChef will beep. Carefully remove the basket from the AquaChef, as it will be hot. Remove the Roast from the bag and dry lightly with a paper towel. Rub the Roast with the Crust mixture and place it in a roasting pan, and place the pan in the preheated oven. Allow the coated Roast to cook for 5-10 minutes, until crust begins to color.

CHICKEN AND OTHER POULTRY

Chicken is one of the most popular and most frequently used meats, and using the AquaChef will make your chicken taste better than ever. But because the AquaChef produces perfect results, and is so easy to use, it will show you that chicken is not the only poultry that makes delicious meals. Your desired temperature for poultry is going to be between 165° F for white meat poultry, and 176° F for dark meat. Most white meat chicken cuts will be cooked for 1 to 2.5 hours, while dark meats will be cooked at a higher temperature for 4 hours. It is important to remember that you should always keep your meats refrigerated or frozen, and never for longer than the expiration date indicates. Also never serve raw or un-pasteurized foods to those with susceptible immune systems.

POULTRY RECIPES

-Chicken Piccata-

**for the AquaChef
(serves 4)**

Ingredients for Chicken:

- 4 Chicken Breasts, boneless & skinless
- Salt and Pepper to taste

Ingredients for Sauce:

- 3 tbs Capers
- ¼ cup Parsley, freshly chopped
- ¼ cup Lemon juice, fresh
- ½ cup Chicken Stock
- 2 tbs Olive Oil
- Salt and Pepper to taste

Directions:

Step 1: Prepare the AquaChef

Remove the basket from your AquaChef and set it aside. Fill the AquaChef with approximately 3.5 liters of water. Plug it in and turn it on. Set the AquaChef's temperature to 165° F and press the start button to preheat the water. The water will be preheated when the Indicator light changes from Red to Blue.

Step 2: Prepare the Chicken

Sprinkle the Chicken Breasts lightly with Salt and Pepper. Put the seasoned chicken in one or more bags.

Step 3: Cooking with the AquaChef

Once the AquaChef is preheated, set the cook time on your AquaChef to 2 hours. Then place the Chicken Breasts in the cooking basket and place them carefully into the AquaChef and put the lid on.

Step 4: Finishing Chicken

Once the time is up, the AquaChef will beep. Carefully remove the basket from the AquaChef, as it will be hot. Remove the Chicken Breasts from the bag and dry them lightly with a paper towel. Heat Olive Oil in pan on medium-high heat. When the pan is hot, brown the Chicken Breasts quickly on each side. This is not to cook the chicken but simply to brown the outside. Remove the breasts from the hot pan and place them on their serving plates.

Step 5: Making the Sauce

Into the hot pan, add the Lemon juice, Stock and Capers. Bring the ingredients to a boil and reduce the sauce slightly. Add Salt and Pepper to taste. Pour the sauce over the chicken on plates and garnish with Parsley.

-Spicy Turkey Breast-

**for the AquaChef
(serves 2-4)**

Ingredients for Turkey Breast:

- 1 whole Turkey Breast
- 2 tsp Chili Powder
- 1 tsp Cumin
- 1 tsp Salt
- ½ tsp Pepper

Directions:

Step 1: Prepare the AquaChef

Remove the basket from your AquaChef and set it aside. Fill the AquaChef with approximately 3.5 liters of water. Plug it in and turn it on. Set the AquaChef's temperature to 165° F and press the start button to preheat the water. The water will be preheated when the Indicator light changes from Red to Blue.

Step 2: Prepare the Turkey

Sprinkle the Turkey Breast lightly with remaining ingredients. Put the seasoned turkey breast in one or more bags.

Step 3: Cooking with the AquaChef

Once the AquaChef is preheated, set the cook time on your AquaChef to 1 hour. Then place the Turkey Breast in the cooking basket and place it carefully into the AquaChef and put the lid on.

Step 4: Finishing Turkey

Once the time is up, the AquaChef will beep. Carefully remove the basket from the AquaChef, as it will be hot. Remove the Turkey Breast from the bag and dry it lightly with a paper towel. Slice the breast and serve.

FISH AND OTHER SEAFOOD

Seafood is one of the healthiest things you can eat, but unfortunately many people avoid cooking it because they fear that it will be either under or over-cooked. With AquaChef's scientific perfection, you will never have to worry that your fish will be tough and dry, or too raw, and you can be certain that it will always be delectable. It is important to remember that you should always keep your fish and seafood refrigerated or frozen, and never for longer than the expiration date indicates. Also never serve raw or un-pasteurized foods to those with susceptible immune systems.

FISH AND SEAFOOD RECIPES

-Simple Herb Lemon Salmon-

**for the AquaChef
(serves 1)**

Ingredients:

- **1 Salmon Filet, 1 - 1.25 lbs**
- **1 Lemon**
- **3 Sprigs of Dill**
- **Salt and Pepper to Taste**

Directions:

Step 1: Prepare the AquaChef

Remove the basket from your AquaChef and set it aside. Fill the AquaChef with approximately 3.5 liters of water. Plug it in and turn it on. Set the AquaChef's temperature to 145° F and press the start button to preheat the water. The water will be preheated when the Indicator light changes from Red to Blue.

Step 2: Prepare the Salmon

Slice the Lemon into ¼ inch slices. Salt and Pepper the salmon to taste on both sides. Arrange the lemon slices and dill on the flesh side of the filet and place filet into vacuum seal bag skin side down. Seal the bag and vacuum out as much air as possible.

Step 3: Cooking with the AquaChef

Once the AquaChef is preheated, set the cook time on your AquaChef to 45 minutes. Then place the salmon in the cooking basket and place it carefully into the AquaChef and put the lid on. Once the time is up, the AquaChef will beep. Carefully remove the basket from the AquaChef, it will be hot. Remove the salmon from the bag and serve immediately.

-Lobster with Butter and Saffron-

**for the AquaChef
(serves 2-4)**

Ingredients for Lobster:

- 1 Lobster, dead
- Salt to taste

Ingredients for Sauce:

- 4 tbs Butter, unsalted
- ¼ cup Heavy Cream
- ½ Lemon's juice
- 10 threads of Saffron
- Salt to taste

Directions:

Step 1: Prepare the AquaChef

Remove the basket from your AquaChef and set it aside. Fill the AquaChef with approximately 3.5 liters of water. Plug it in and turn it on. Set the AquaChef's temperature to 145° F and press the start button to preheat the water. The water will be preheated when the Indicator light changes from Red to Blue.

Step 2: Prepare the Lobster

Remove the meat from the Lobster shell, and sprinkle the meat with salt. Place the Lobster into vacuum-sealed bags. Seal the bag and vacuum out as much air as possible.

Step 3: Cooking with the AquaChef

Once the AquaChef is preheated, set the cook time on your AquaChef to 45 minutes. Then place the Lobster in the cooking basket and place it carefully into the AquaChef and put the lid on.

Step 4: Making the Sauce

Melt the Butter in a pan and then add the Cream, Lemon Juice and Saffron. Simmer the ingredients in the pan until the Saffron releases its color and the sauce reduces slightly. Add Salt to taste.

Step 5: Serving the Lobster

Once the time is up the, AquaChef will beep. Carefully remove the basket from the AquaChef, as it will be hot. Remove the Lobster from the bag, and place on serving plates. Pour the sauce over the Lobster and serve.

DESSERTS

Perhaps you originally purchased your AquaChef to cook only meats and maybe vegetables, but after you see how easy and fun it can be to cook with the AquaChef you will find yourself wanting to use it for as many different things as possible. Luckily, you can cook just about anything with the AquaChef, and desserts are a definite! From delicious custards, to warm cakes, and much more, you'll soon find that the AquaChef is the perfect companion to have in the kitchen for whatever it is you desire.

-Custard with Whipped Cream and Chocolate-

**for the AquaChef
(serves 6-8)**

Ingredients for Custard:

- 4 Eggs, whole
- 4 Egg Yolks
- 4 cups Heavy Cream
- 1 cup Sugar
- ½ tsp Vanilla Extract

Ingredients for Topping:

- 1 cup Heavy Whipping Cream
- 1 tbs Sugar
- 3 oz Dark Chocolate

Directions:

Step 1: Prepare the AquaChef

Place the basket inside your AquaChef and place 6-8 ramekins in the basket inside the AquaChef and fill the AquaChef with enough water to reach nearly the top of the ramekins. Remove the ramekins and dry them. Plug in the AquaChef and turn it on. Set the AquaChef's temperature to 175° F and press the start button to preheat the water. The water will be preheated when the Indicator light changes from Red to Blue.

Step 2: Prepare the Custard

Using a mixer, mix together the Custard ingredients in a large bowl. Pour the mixture into 6-8 ramekins, and tightly cover them with plastic, securing the edges with rubber bands.

Step 3: Cooking with the AquaChef

Once the AquaChef is preheated, set the cook time on your AquaChef to 1 hour. Then place the covered ramekins in the cooking basket and place it carefully into the AquaChef and put the lid on.

Step 4: Making the Topping

In a cold metal bowl, whip the Heavy Whipping Cream and Sugar with a mixer until you have stiff peaks. Cover the whipped cream and keep refrigerated until ready to serve.

Step 5: Serving the Custard

Once the time is up, the AquaChef will beep. Carefully remove the basket from the AquaChef, as it will be hot. Remove the ramekins from the basket and place them in the refrigerator for about 4 hours. When ready to serve, add whipped cream on top of the Custard, grate the Chocolate on top, and serve.

-Molten Chocolate Cake-

**for the AquaChef
(serves 6-8)**

Ingredients for Cake:

- **12 tbs Butter, unsalted**
- **6 ounces Chocolate, semisweet**
- **3 Eggs, whole**
- **3 Egg Yolks**
- **½ packed cup Light Brown Sugar**
- **1 tsp Vanilla Extract**
- **1 tbs All-Purpose Flour**

Directions:

Step 1: Prepare the AquaChef

Place the basket inside your AquaChef and place 6-8 ramekins in the basket inside the AquaChef and fill the AquaChef with enough water to reach nearly the top of the ramekins. Remove the ramekins and dry them. Plug in the AquaChef and turn it on. Set the AquaChef's temperature to 185° F and press the start button to preheat the water. The water will be preheated when the Indicator light changes from Red to Blue.

Step 2: Prepare the Cake

Melt the Butter in a pan at medium-low heat and then remove from heat and add the Chocolate. Let the mixture stand for about 2 minutes, then whisk it until it becomes smooth. Beat the Eggs, Yolks and Light Brown Sugar with a mixer for about 3 minutes, until the color and texture is nice and light. Beat in the Vanilla Extract, then add the Chocolate mixture, and sprinkle with the Flour. Fold the ingredients together with a spatula and divide into 6-8 buttered and floured ramekins. Cover the ramekins with foil.

Step 3: Cooking with the AquaChef

Once the AquaChef is preheated, set the cook time on your AquaChef to 40 minutes. Then place the covered ramekins in the cooking basket and place it carefully into the AquaChef and put the lid on.

Step 5: Serving the Cakes

Once the time is up, the AquaChef will beep. Carefully remove the basket from the AquaChef, as it will be hot. Remove the ramekins from the basket and let them stand for about 1 minute. With a knife, cut around the edge of the ramekins and place your serving plate on top of each ramekin, then flip the two over. Lift the ramekin, and sprinkle cake with powdered sugar and serve.

CLOSING

Thank You for Your Purchase!

AquaChef is so thankful to have you as our customer, and we are confident that you will love the AquaChef's consistently delicious results. Remember that you are now cooking like the best chefs of the world, and just as they do, have fun and enjoy!

For more information, videos, and recipes on how to cook with the AquaChef, or to review an extended version of the AquaChef cookbook, please go to: www.gourmetcookingonline.com

APPENDIX

- AquaChef Cooking Temperatures-

Internal Temperatures

Beef & Other Red Meats:

Medium: 140F; Medium Well: 150F; Well: 160F and up

Pork:

Medium: 145F; Medium Well: 150F; Well: 160F and up

Chicken & Other Poultry:

White Meat: 165F; Dark Meat: 176F

Fish & Other Seafood:

145F

Fruits & Vegetables:

183-190F

Note: Raw or un-pasteurized food must never be served to highly susceptible immune-compromised individuals. The US Food Code recommends that for safety, foods should not be kept between 41F and 130F for longer than four hours.

-FDA Safe Consumer Cooking Temperatures-

Use this chart and a food thermometer to ensure that meat, poultry, seafood, and other cooked foods reach a safe minimum internal temperature. Remember, you can't tell whether meat is safely cooked by looking at it. Any cooked, uncured red meats – including pork – can be pink, even when the meat has reached a safe internal temperature.

After you remove meat from a grill, oven, or other heat source, allow it to rest for the specified amount of time. During the rest time, its temperature remains constant or continues to rise, which destroys harmful germs.

Category	Food	Temperature (°F)	Rest Time
Ground Meat & Meat Mixtures	Beef, Pork, Veal, Lamb	160	None
	Turkey, Chicken	165	None
Fresh Beef, Veal, Lamb	Steaks, roasts, chops	145	3 minutes
Poultry	Chicken & Turkey, whole	165	None
	Poultry breasts, roasts	165	None
	Poultry thighs, legs, wings	165	None
	Duck & Goose	165	None
	Stuffing (cooked alone or in bird)	165	None
Pork and Ham	Fresh pork	145	3 minutes
	Fresh ham (raw)	145	3 minutes
	Precooked ham (to reheat)	140	None
Eggs & Egg Dishes	Eggs	Cook until yolk and white are firm	None
	Egg dishes	160	None

Leftovers & Casseroles	Leftovers	165	None
	Casseroles	165	None
Seafood	Fin Fish	145 or cook until flesh is opaque and separates easily with a fork.	None
	Shrimp, lobster, and crabs	Cook until flesh is pearly and opaque.	None
	Clams, oysters, and mussels	Cook until shells open during cooking.	None
	Scallops	Cook until flesh is milky white or opaque and firm.	None

Sous Vide Cooking Temperatures & Times for Experts

Cooking at home you have the option to cook at the temperature and time of your choosing, understanding that you are acting outside of the FDA consumer recommendations. Be sure to err on the side of safety by cooking longer when working outside of the FDA recommendations for consumers. The USDA publishes time and temperature safety information when cooking at lower temperatures. For more information on what the USDA recommends for minimum safe times and cooking temperatures go to <http://www.fsis.usda.gov/>. **Please note that Kitchen Advance does not recommend these times and temperatures and it is important that you independently research and have confidence in the safety of your ingredients, cooking times and temperatures prior to following any of the times and temperatures below.**

Food	Thickness inch/mm	Cooking Temperature	Time MIN	Time MAX
BEEF & OTHER RED MEATS				

Beef or Lamb, tender cuts

Tenderloin, Sirloin, Ribeye or T-bone Steaks, Lambchops

Tender Beef, Lamb	1"	134F or higher	1 hr	4 hrs
Tender Beef, Lamb	2"	134F or higher	2 hrs	4 hrs

Beef or Lamb, tougher/leaner cuts

Roast, Ribs, Brisket, Flat-iron Steak, grass-fed cuts, Leg of Lamb, Bison, Game

Bison, Game	1"	134F or higher	8-10 hrs	12-25 hrs
Roast, Leg of Lamb	2.75"	134F or higher	10 hrs	24-48 hrs
Spare Ribs	2"	176F	24 hrs	48-72 hrs
Flank Steak, Brisket	1"	134F or higher	8-10 hrs	24-30 hrs

PORK

Pork, tender cuts

Tenderloin, Baby Back Ribs

Tenderloin	1.5"	134F or higher	90 min	6-8 hrs
Baby Back Ribs		165F	4-8 hrs	12 hrs

Pork, tougher cuts

Chops, Roast, Country-style Spare Ribs

Pork Chops	1"	134F or higher	2-4 hrs	6-8 hrs
Pork Chops	2"	134F or higher	4-6 hrs	8-10 hrs
Pork Roast	2.75"	160-176F	12 hrs	30 hrs
Spare Ribs	2.75"	160-176F	12 hrs	30 hrs

CHICKEN & OTHER POULTRY

Chicken Breast, bone in	2"	146F or higher	2.5 hrs	4-6 hrs
Chicken Breast, boneless	1"	146F or higher	1 hr	2-4 hrs
Chicken Leg/Thigh		160F or higher	4 hrs	6-8 hrs
Split Game Hen	2.75"	160F or higher	6 hrs	8 hrs
Turkey/Duck Leg		176F	8 hrs	10 hrs
Confit	2.75"	176F	8 hrs	18 hrs
Duck Breast	1"	134F or higher	2.5 hrs	6-8 hrs

FISH & OTHER SEAFOOD

Lean Fish	.5"	desired serving temp.	30-40 min	*
Fatty Fish	1"	desired serving temp.	40-50 min	*
Lobster	1"	140F	45 min	*
Scallops, diver	1"	140F	40-60 min	*
Shrimp	large or jumbo	140F	30 min	*

FRUITS

Firm Fruits <i>Apple, Pear</i>	up to 1"	183F	45 min	2 hrs
Soft Fruits <i>Peach, Apricot, Plum, Mango, Papaya, Nectarine, Strawberry</i>	up to 1"	183F	30 min	1 hr

VEGETABLES

Root Vegetables <i>Beets, Carrots, Celery Root, Parsnips, Potato, Turnips</i>	up to 1"	183F	1-2 hrs	4 hrs
Tender Vegetables <i>Asparagus, Broccoli, Cauliflower, Corn, Eggplant, Fennel, Green Beans, Onions, Peas, Squashes</i>	up to 1"	183F	45 min	1.5 hrs

EGGS

Chicken, large

(when cooked in shell, do not vacuum/seal in pouches)

soft cooked in shell (quick)	1-12	167F	15 min	18 min
soft cooked in shell (slow)	1-12	146F or higher	45 min	1.5 hrs
hard cooked in shell	1-12	160F or higher	45 min	1.5 hrs
scrambled	5	167F	20 min	*
pasteurized	1-12	135F	1.25 hrs	2 hrs

* longer cooking times may result in excessively soft texture

- USDA Time-Temperature Safety Tables-

What follows are the USDA guidelines for safe cooking temperatures and cook times for beef and poultry products. Complying with standards is essential for food safety. However, cooking at home you have the option to cook at the temperature and time of your choosing, understanding that you are acting outside of the FDA consumer recommendations. Be sure to error on the side of safety by cooking longer when working outside of the FDA recommendations for consumers. The USDA publishes time and temperature safety information when cooking at lower temperatures. For more information on what the USDA recommends for minimum safe times and cooking temperatures go to <http://www.fsis.usda.gov/>.

-Guidelines for Cooked, Roast, & Corned Beef-

Cooked beef, roast beef, and cooked corned beef can be prepared using one of the following time and temperature combinations to meet the minimum safe cook times for the prevention of Salmonella. The stated temperature is the minimum that must be achieved and maintained in all parts of each piece of meat for at least the stated time:

Minimum Internal Temperature	Minimum processing time in minutes or seconds after minimum temperature is reached
Degrees Fahrenheit	Minimum Safe Cook Time*
130	121 minutes
131	97 minutes
132	77 minutes
133	62 minutes
134	47 minutes
135	37 minutes
136	32 minutes
137	24 minutes
138	19 minutes
139	15 minutes
140	12 minutes
141	10 minutes
142	8 minutes
143	6 minutes
144	5 minutes
145	4 minutes
146	182 seconds
147	144 seconds
148	115 seconds
149	91 seconds
150	72 seconds
151	58 seconds
152	46 seconds
153	37 seconds
154	29 seconds
155	23 seconds
156	19 seconds
157	15 seconds
158	0 seconds
159	0 seconds
160	0 seconds

* Anyone immunocompromised should cook all foods to the FDA minimum safe temperatures.

- Guidelines for Cooked Chicken & Turkey -

Cooked chicken and cooked turkey can be prepared using one of the following time and temperature combinations to meet the minimum safe cook times for the prevention of Salmonella. The stated temperature is the minimum that must be achieved and maintained in all parts of each piece of meat for at least the stated time:

fat%=12		
Degrees Fahrenheit	Time for Chicken*	Time for Turkey*
136	81.4 minutes	70.8 minutes
136	65.5 minutes	58.5 minutes
138	52.9 minutes	48.5 minutes
139	43 minutes	40.4 minutes
140	35 minutes	33.7 minutes
141	28.7 minutes	28.2 minutes
142	23.5 minutes	23.7 minutes
143	19.3 minutes	19.8 minutes
144	15.9 minutes	16.6 minutes
145	13 minutes	13.8 minutes
146	10.6 minutes	11.5 minutes
147	8.6 minutes	9.4 minutes
148	6.8 minutes	7.7 minutes
149	5.4 minutes	6.2 minutes
150	4.2 minutes	4.9 minutes
151	3.1 minutes	3.8 minutes
152	2.3 minutes	2.8 minutes
153	1.6 minutes	2.1 minutes
154	1.1 minutes	1.6 minutes
155	54.4 seconds	1.3 minutes
156	43 seconds	1 minute
157	34 seconds	50.4 seconds
158	26.9 seconds	40.9 seconds
159	21.3 seconds	33.2 seconds
160	16.9 seconds	26.9 seconds
161	13.3 seconds	21.9 seconds
162	10.5 seconds	17.7 seconds
163	<10.0 seconds	14.4 seconds
164	<10.0 seconds	11.7 seconds
165	<10.0 seconds	<10.0 seconds

* Anyone immunocompromised should cook all foods to the FDA minimum safe temperatures.