

4145 Branch Center Road  
Sacramento, CA 95827-3823  
(916) 875-6913 Office  
(916) 875-6233 Fax  
Email: [sacmfp@ucanr.edu](mailto:sacmfp@ucanr.edu)  
Website: [ucanr.edu/mfpsac](http://ucanr.edu/mfpsac)



**University of California**  
Agriculture and Natural Resources

**UCCE Master Food Preserver Program**  
Sacramento County

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*Sacramento County Master Food Preservers  
Monthly Wednesday Night Demonstration  
February 16, 2022  
Meats*



**Resources:**

- Please visit the National Center for Home Food Preservation at <http://nchfp.uga.edu> for detailed information about research-based methods of home food preservation.
- UC ANR Catalog (<http://anrcatalog.ucanr.edu>)

Should you need assistance or require special accommodations for any of our educational programs, please contact us at 916-875-6913.

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## ALL PURPOSE MEAT SEASONING

Source: <https://www.tasteofhome.com/recipes/all-purpose-meat-seasoning/>

### Ingredients:

- 3/4 cup packed brown sugar
- 3 tablespoons kosher salt
- 3 tablespoons paprika
- 3 tablespoons chili powder
- 2 tablespoons garlic powder
- 2 tablespoons onion powder
- 1 tablespoon ground cumin
- 1 tablespoon dried oregano

### Directions:

Combine all ingredients. Transfer to an airtight container. Store in a cool dry place up to 1 year.

**NOTE:** The seasoning caramelizes quickly when the meat is seared in a skillet.

## THE BEST STEAK SEASONING RECIPE

Source: <https://blog.cavetools.com/homemade-steak-seasoning/>

### Ingredients:

- 2 tablespoons of kosher salt *or* 1 tablespoon of table salt
- 1 tablespoon coarsely ground black pepper
- 1 tablespoon garlic powder
- 1 tablespoon onion powder
- 1 tablespoon light brown sugar
- 1 tablespoon smoked paprika
- 1 tablespoon cumin
- 2 tablespoons dried thyme

A couple shakes of your favorite hotter spice such as cayenne, chili powder, or ancho chile pepper (experiment with whatever combination you prefer and adjust the amount depending on how mild or spicy you prefer.)

### Instructions

#### Mixing up your homemade steak seasoning

1. Measure out your salt, black pepper, garlic powder, onion powder, brown sugar, smoked paprika, cumin, thyme, and hotter spice of choice, and put them into a small bowl.
2. Combine the herbs and spices with a whisk, making sure everything is well mixed.

#### Applying your seasoning—Don't rub it the wrong way!

1. Contrary to how it sounds, you don't actually want to rub a seasoning rub into your meats.
2. If you do, it'll only clog the pores of the meat and give your steak surface level flavor.
3. Pat down your steaks with a paper towel to remove the excess moisture.
4. Then, you'll want to sprinkle your seasoning blend onto the top, bottom, and sides of the steak.
5. If you sprinkle from a height, you'll get the best distribution of the seasoning over the surfaces of the meat.
6. You can lightly pat down the seasoning with the palm of your hand to ensure that it sticks, but you don't want to get any more aggressive than that.

### Playing the waiting game

1. The secret to a flavorful and succulent steak is allowing time for the rub to do its job.
2. Cover your newly seasoned steaks and let them rest in the refrigerator.
3. Wait at least 15-20 minutes for the seasoning to get into the meat.
4. If you're able to plan ahead, rest the steaks in the seasoning overnight to get the most out of your homemade steak seasoning.

### Cook it up

1. Once your meat is rested and well-flavored, it's time to get your grill on.
2. Make sure to do your research about how to properly cook your cut of steak.
3. A New York strip steak and a filet mignon require completely different approaches to grilling.
4. But no matter which cut of meat you cook, they will all benefit from a quick rest after you remove it from the grill.
5. Waiting just five minutes will help ensure that the meat's juices will redistribute and not just spill out all over the cutting board when you go to cut it.

## CANNING SOUP

Source: So Easy to Preserve

Soups containing vegetables and meats are low acid products. They must be processed in a pressure canner to ensure their safety. Use the processing time and pressure specified for each type of soup.

**CAUTION:** USDA does not recommend adding noodles or other pasta, rice, flour, cream, milk or other thickening agents to home canned soups.

### CHICKEN STOCK (Broth)

Hot Pack – Place large carcass bones (with most of meat removed) in a large stockpot. Add enough water to cover bones. Cover pot and simmer until meat can be easily stripped from bones, about 30 to 45 minutes. Remove bones. Cool both; skim off and discard fat. Remove the bits of meat clinging to bones and add to both, if desired. Reheat broth to boiling. Fill hot jars, leaving 1-inch headspace. Wipe jars rims. Adjust lids and process.

**CAUTION:** Do not add additional meat to this product.

Process in a Dial Gauge Pressure Canner at 11 pounds pressure OR in a Weighted Gauge Pressure Canner at 10 pounds pressure:

Pint.....	20 minutes
Quarts.....	25 minutes

## CHICKEN or RABBIT (Pressure Canning)

Source: National Center for Home Food Preservation

<http://nchfp.uga.edu/index.html>

[http://nchfp.uga.edu/how/can\\_05/chicken\\_rabbit.html](http://nchfp.uga.edu/how/can_05/chicken_rabbit.html)

**Procedure:** Choose freshly killed and dressed, healthy animals. Large chickens are more flavorful than fryers. Dressed chicken should be chilled for 6 to 12 hours before canning. Dressed rabbits should be soaked 1 hour in water containing 1 tablespoon of salt per quart, and then rinsed. Remove excess fat. Cut the chicken or rabbit into suitable sizes for canning. Can with or without bones. The hot pack is preferred for best liquid cover and quality during storage. Natural poultry fat and juices are usually not enough to cover the meat in raw packs.

**Hot pack** – Boil, steam or bake meat until about two-thirds done. Add 1 teaspoon salt per quart to the jar, if desired. Fill jars with pieces and hot broth, leaving 1-1/4 inch headspace.

**Raw pack** – Add 1 teaspoon salt per quart, if desired. Fill jars loosely with raw meat pieces, leaving 1-1/4 inch headspace. Do not add liquid.

Adjust lids and process following the recommendations in Table 1 or Table 2 according to the canning method used.

<b>Table 1.</b> Recommended process time for Chicken or Rabbit in a <b>dial-gauge</b> pressure canner.						
			<b>Canner Pressure (PSI) at Altitudes of</b>			
<b>Style of Pack</b>	<b>Jar Size</b>	<b>Process Time</b>	<b>0-2,000 ft</b>	<b>2,001 - 4,000 ft</b>	<b>4,001 - 6,000 ft</b>	<b>6,001 - 8,000 ft</b>
<b>Without Bones:</b>						
Hot and Raw	Pints	75 min	<b>11 lb</b>	12 lb	13 lb	14 lb
	Quarts	90	<b>11</b>	12	13	14
<b>With Bones:</b>						
Hot and Raw	Pints	65 min	<b>11 lb</b>	12 lb	13 lb	14 lb
	Quarts	75	<b>11</b>	12	13	14

**CHICKEN OR RABBIT** (continued)

<b>Table 2.</b> Recommended process time for Chicken or Rabbit in a <b>weighted-gauge</b> pressure canner.				
			<b>Canner Pressure (PSI) at Altitudes of</b>	
<b>Style of Pack</b>	<b>Jar Size</b>	<b>Process Time</b>	<b>0 - 1,000 ft</b>	<b>Above 1,000 ft</b>
<b>Without Bones:</b>				
Hot and Raw	Pints	75 min	<b>10 lb</b>	15 lb
	Quarts	90	<b>10</b>	15
<b>With Bones:</b>				
Hot and Raw	Pints	65 min	<b>10 lb</b>	15 lb
	Quarts	75	<b>10</b>	15

## THE BEST MOROCCAN CHICKEN TAGINE

Source: <https://www.thespruceeats.com/chicken-tagine-with-preserved-lemons-olives-2394715>

Prep: 25 minutes

Cook: 90 minutes

Marinate and Rest Time: 3 hours 15 minutes

Total: 5 hours 10 minutes

Servings: 4 to 6 servings

A classic dish, this [Moroccan chicken recipe](#) uses preserved lemons, olives, and onions. It can be cooked in an authentic [tagine](#) or roasted in the oven, depending on your preference, and what equipment you have at your disposal. Either way, you'll enjoy a delicious meal that is sure to please everyone at the dinner table.

This recipe includes a number of traditional Moroccan ingredients, such as [preserved lemons](#) (which you can make yourself or purchase in specialty shops or online), smen, a kind of preserved butter, and the Moroccan spice blend [ras el hanout](#). Since the olives, lemons, and smen are salty, don't be too liberal with the salt in this recipe—1/2 teaspoon or less. Just taste; you'll know.

To the unfamiliar, [tagine](#) can be a little confusing, because it's both the name of the dish, and the vessel in which the dish is cooked. Typically made of clay or ceramic, the tagine is used in northern African cuisine, and it is distinguished by its wide, circular base and a cone-shaped top. The tagine functions like a slow cooker in a sense, and the cone shape functions as a way to return moisture to the base of the tagine, creating a moist and flavorful dish.

Moroccan tradition is to eat directly from the tagine, using [Moroccan bread](#) to scoop up the chicken and sauce. Belgian fries (*patate frite*) often top the chicken, though you can use your favorite French fries. Serving rice on the side also helps you soak up the tasty juices.

## Ingredients

- 1 to 2 [preserved lemons](#), quartered and seeds removed
- 1 whole chicken, cut into pieces, skin removed, back discarded or reserved for another use
- 2 large white or yellow onions, finely chopped
- 2 to 3 cloves garlic, minced
- 1 small handful fresh cilantro, chopped
- 1 small handful fresh parsley, chopped
- 2 teaspoons powdered ginger
- 1 teaspoon black pepper
- 1 teaspoon [turmeric](#) (or 1/4 teaspoon Moroccan yellow colorant)
- 1/2 teaspoon salt, or to taste
- 1/4 teaspoon saffron threads, crumbled, optional
- 1 teaspoon [smen](#), optional
- 1/4 to 1/2 teaspoon ras el hanout, optional
- 1/3 cup olive oil
- 2 handfuls pitted [olives](#) (green or red, or mixed)
- 1/4 cup water, approximately, if using a tagine

## Steps to Make It

### Marinate the Chicken

1. Gather the ingredients.
2. Remove the flesh from the preserved lemons and chop the flesh finely. Reserve rind for cooking.
3. Add the lemon flesh to a bowl along with the chicken, onion, garlic, cilantro, parsley, ginger, pepper, turmeric, and salt. If using, add the saffron, ras el hanout, and smen. Mix well.
4. If time allows, let the chicken marinate in the refrigerator for several hours or overnight. Cook in either a tagine or in the oven. (See below for more information on both methods.)

## Cooking in a Tagine

1. Add enough of the olive oil to the [tagine](#) to coat the bottom.
2. Arrange the marinated chicken in the tagine, flesh-side down, and distribute the onions all around.
3. Add the olives and reserved rind of the preserved lemons, and drizzle the remaining olive oil over the chicken.
4. Add the water to the tagine, cover, and place on a heat diffuser over medium-low heat. Give the tagine time to reach a simmer without peaking. If you don't hear the tagine simmering within 20 minutes, slightly increase the heat, and then use the lowest heat setting required for maintaining a gentle—not rapid—simmer.
5. Allow the chicken to cook undisturbed for 80 to 90 minutes, and then turn the chicken over so it's flesh-side up. Cover the tagine again, and allow the chicken to finish cooking until very tender (about 45 minutes to 1 hour).
6. Turn off the heat, and let the tagine cool for about 10 to 15 minutes before serving. Enjoy.

## Cooking in the Oven

1. Preheat oven to 425 F/220 C. Add enough of the olive oil to a large baking dish so it coats the bottom.
2. Add the sliced onions and garlic from the marinade.
3. Then place the marinated chicken on top.
4. Add the olives and reserved rind of the preserved lemons on top and drizzle the chicken with the remaining olive oil.
5. Bake the chicken uncovered for 45 minutes to 1 hour, or until the chicken is light golden brown, basting occasionally.
6. Reduce the heat to 350 F/180 C and continue baking for another 20 to 30 minutes or longer. The chicken should be deeply browned and the juices should run clear.
7. Remove the chicken from the oven and let it rest for 10 to 15 minutes before serving. Enjoy.

## Tips

- For either method, you can cut a whole chicken into either halves or individual pieces prior to marinating. The pieces may fit better in a tagine; the halves are easier to handle in the oven and can be cut after cooking.
- You'll get more flavor if you start marinating the chicken [with the Moroccan spices](#) the night before.
- The cooking times may vary depending on the size of your chicken. In the tagine, 2 1/2 hours allows the tagine to be brought to a slow simmer so it doesn't dry out.
- Check that [the internal temperature](#) of the chicken is between 165 and 175 F.

## POLISH SAUSAGE

Yield: 1-1/2 pounds

1-1/2 pounds coarsely ground pork  
1/2 teaspoon ground allspice  
3-1/2 teaspoon pepper  
6 cloves garlic, crushed  
1 teaspoon salt  
1 to 2 teaspoon liquid smoke, to taste  
1/2 cup ice water  
2 tablespoons red wine  
Casings, cleaned and rinsed (Optional)

1. In a large chilled bowl, mix all ingredients except the water, then add the water and mix.
2. Roll into a sausage shape. Place shaped sausage in plastic bags that can be sealed and are safe to cook in.
3. Place bag into boiling water. Boil for 45 minutes.
4. Remove sausages from bag and store in the refrigerator or freezer for later use.
5. Reheat by browning in a frying pan or grill, bake or broil to an internal temperature of 160°F.

## CHICKEN OR TURKEY SAUSAGE

Yield: 5 pounds

5 pounds of boneless, chicken or turkey (combination of light and dark meat), skin included

1 cup finely chopped fresh onion or 2 tablespoons onion powder

3/4 cup chopped dried apples

1/2 cup dried apricots

1 tablespoon dried sage

1 tablespoon kosher salt

2 teaspoons ground black pepper

1 teaspoon ground nutmeg

1 teaspoon dried red pepper flakes

1 cup dry nonfat milk powder

Casings, cleaned and rinsed (Optional)

1. Cut the meat and skin into workable pieces, chill 1 hour in freezer, and grind through the medium plate on your meat grinder.
2. Add the spices and milk powder to the ground meat and mix well by hand.
3. Grind the sausage mixture one more time through the medium plate on your meat grinder.
4. Stuff immediately into natural or collagen casings or refrigerate/freeze in bulk for later use.

## FREEZING ANIMAL PRODUCTS

Source: National Center for Home Food Preservation

<http://nchfp.uga.edu/index.html>

Freezing is an excellent way to preserve animal products such as meat, poultry, fish and shellfish. In some instances, eggs and dairy foods can also be frozen for later use.

Freezing does not sterilize food. The extreme cold simply retards growth of microorganisms and slows down changes that affect quality or cause spoilage.

The quality and safety of the final product depends on how the product is handled before, during and after freezing. Freezing affects the texture, color, juiciness and flavor of foods. Start with high quality food, as freezing does not improve food quality. Follow directions in the fact sheet for handling each individual food.

For highest quality, foods need to be tightly sealed in moisture-vapor resistant materials and then frozen quickly at 0°F or below. Don't freeze too much at one time because the food will freeze slowly, resulting in a mushy final product. Add only the amount of unfrozen food that will freeze within 24 hours, usually two to three pounds per cubic foot of freezer space. If you have a large amount of food to freeze, plan to have it frozen for you by a meat-packing plant or another commercial freezer.

Once the food is frozen, keep it solidly frozen at 0°F or below. Even slight fluctuations in temperature can cause the food to thaw slightly, resulting in a mushy product. Don't place unfrozen food on top of frozen food; it could cause the frozen food to thaw.

Because animal products are very susceptible to the growth of microorganisms that can cause foodborne illness, it's important to handle them carefully. Never leave animal products at room temperature for more than two hours. Also, be sure to clean surfaces and utensils used for preparing the products for freezing.

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Refer to the fact sheet <http://nchfp.uga.edu/publications/uga/FreezingAnimalProducts.pdf> for specific information on:

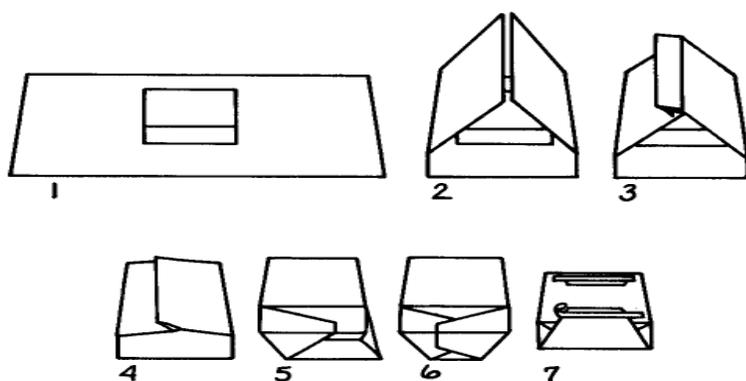
- Packaging materials
  - The “butcher” and the “drugstore” wrap for foods
  - Freezing different specific meats, game, poultry, seafood, eggs, dairy
  - Thawing instructions for the different foods
  - Storage times for the different foods
-

## METHODS OF FREEZER WRAPPING

### Drugstore Wrap

Cut off enough wrapping material to wrap around the food about 1½ times or enough to make three 1-inch fold down when wrapping.

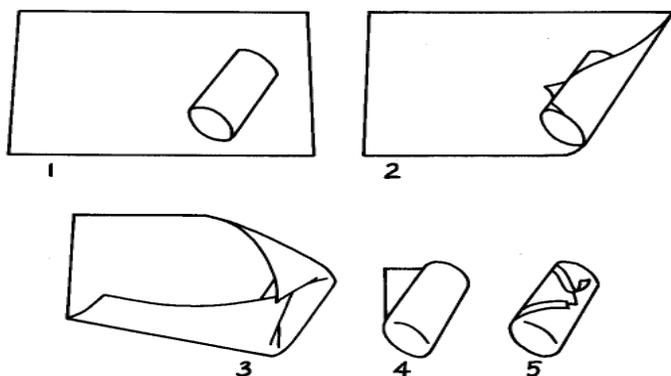
1. Place meat in center of wrapping.
2. Bring two opposite edges of the wrap together centered above food.
3. Fold the edges down in a series of folds ½ to 1 inch deep until the fold lies against the food.
4. Press the fold down across the food, squeezing out the air.
5. Turn package over. Press ends to remove air.
6. Fold ends snugly with a double fold.
7. Bring ends up and fasten securely with cord or freezer tape. Label.



### Butcher Wrap

Best for bulky and irregular shaped foods. Cut off enough wrap to go around the food twice.

1. Place food at one corner of the wrapping.
2. Fold the food and wrap over two times in the direction of the opposite corner.
3. Fold the ends up pushing the air out as you fold.
4. With ends tucked up, continue to fold food and wrapping over.
5. Pull end tight and seal with cord or freezer tape. Label.

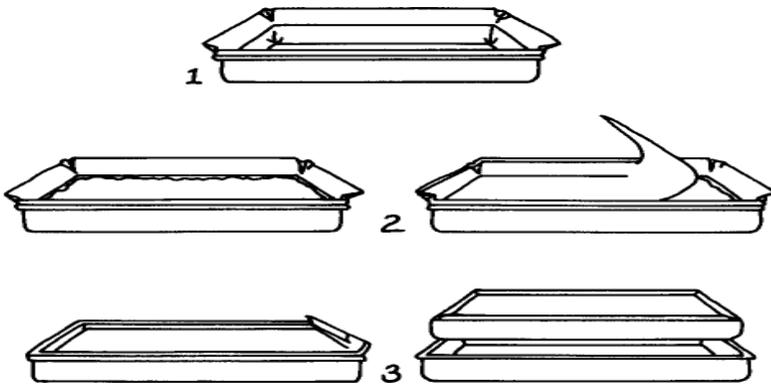


## Casserole Wrap

Allows for reuse of baking dish after food is frozen.

1. Line baking dish with heavy duty foil\*, leaving a 1½ inch foil collar around the edge.
2. Place food in foil-lined dish. Cover with sheet of foil the size of dish and foil collar. Press air out from center; fold edges together, sealing tightly.
3. Label and freeze. When frozen, lift from dish and return food to freezer.

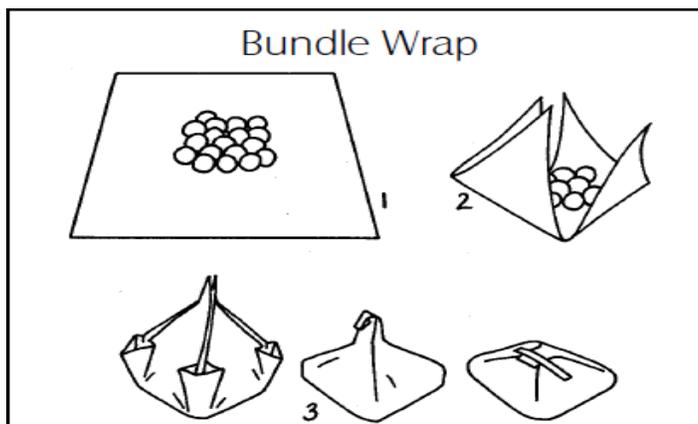
\*You can use a plastic-type freezer wrap can be used to line baking dishes. The wrap needs to be large enough to fold over the top for sealing.



## Bundle Wrap

Good for odd shapes and semi-moist foods. Foods may be baked or grilled in this wrap.

1. Center food on a square of heavy duty foil large enough for adequate wrapping.
  2. Bring four corners of foil up together in a pyramid shape.
  3. Fold open edges together in locked folds, pressing air out, until foil is tight against food.
- Label.



Food Freezing Basics: Methods of Wrapping (FN613)

<https://www.ag.ndsu.edu/publications/food-nutrition/food-freezing-basics-methods-of-wrapping>

## PREPARING SAFER JERKY

Jerky is a lightweight, dried meat product that is a handy food for backpackers, campers and outdoor sports enthusiasts. It requires no refrigeration. Jerky can be made from almost any lean meat, including beef, pork, venison or smoked turkey breast. (Raw poultry is generally not recommended for use in making jerky because of the texture and flavor of the finished product.)

Raw meats can be contaminated with microorganisms that cause disease. These harmful bacteria can easily multiply on moist, high protein foods like meat and poultry and can cause illness if the products are not handled correctly. If pork or wild game is used to make jerky, the meat should be treated to kill the trichinella parasite before it is sliced and marinated. This parasite causes the disease trichinosis. To treat the meat, freeze a portion that is 6 inches or less thick at 0°F or below for at least 30 days. Freezing will not eliminate bacteria from the meat.

Follow these recommendations for safe handling of meat and poultry:

- Always wash hands thoroughly with soap and running water for at least 20 seconds before and after handling raw meats.
- Use clean equipment and utensils.
- Keep meat and poultry refrigerated at 40°F or below. Use ground beef and poultry within 2 days, red meats within 3 to 5 days or freeze for later use.
- Thaw frozen meat in the refrigerator, not on the kitchen counter.
- Marinate meat in the refrigerator. Do not save and re-use marinade.

When preparing jerky from wild game, it is important to remember that the wound location and skill of the hunter can affect the safety of the meat. If the animal is wounded in such a way that the contents of its gut come in contact with the meat or the hunter's hands while dressing the meat, fecal bacteria can contaminate the meat. It is best to avoid making jerky from this meat and use it only in ways that it will be thoroughly cooked. Deer carcasses should be rapidly chilled to avoid bacterial growth. The risk of foodborne illness from home-dried jerky can be decreased by allowing the internal temperature of the meat to reach 160°F, but in such a way as to prevent case hardening. Two methods can be used: heating meat strips in marinade before drying or heating the dried jerky strips in an oven after the drying process is completed. Directions for both methods are below. When the strips are heated in a marinade before drying, drying times will be reduced. Color and texture will differ from traditional jerky.

Preparing the Meat - Partially freeze meat to make slicing easier. The thickness of the meat strips will make a difference in the safety of the methods recommended in this book. Slice meat no thicker than 1/4 inch. Trim and discard all fat from meat because it becomes rancid quickly. If a chewy jerky is desired, slice with the grain. Slice across the grain if a more tender, brittle jerky is preferred. A tenderizer can be used according to package directions, if desired. The meat can be marinated for flavor and tenderness. Marinade recipes may include oil, salt, spices and acid ingredients such as vinegar, lemon juice, teriyaki, or soy sauce or wine.

#### Jerky Marinade

- 1 1/2 - 2 pounds of lean meat (beef, pork or venison)
- 1/4 cup soy sauce
- 1 tablespoon Worcestershire sauce
- 1/4 teaspoon each of black pepper and garlic powder
- 1/2 teaspoon onion powder
- 1 teaspoon hickory smoke-flavored salt

Combine all ingredients. Place strips of meat in a shallow pan and cover with marinade. Cover and refrigerate 1-2 hours or overnight. Products marinated for several hours may be saltier than some people prefer. If you choose to heat the meat prior to drying to decrease the risk of foodborne illness, do so at the end of the marination time. To heat, bring strips and marinade to a boil and boil for 5 minutes before draining and drying. If strips are more than ¼ inch thick, the length of time may need to be increased. If possible, check the temperature of several strips with a metal stem-type thermometer to determine that 160°F has been reached.

Drying the Meat - Remove meat strips from the marinade and drain on clean, absorbent towels. Arrange strips on dehydrator trays or cake racks placed on baking sheets for oven drying. Place the slices close together, but not touching or overlapping. Place the racks in a dehydrator or oven preheated to 140°F. Dry until a test piece cracks but does not break when it is bent (10 to 24 hours for samples not heated in marinade). Samples heated in marinade will dry faster. Begin checking samples after 3 hours. Once drying is completed, pat off any beads of oil with clean, absorbent towels and cool. Remove strips from the racks. Cool. Package in glass jars or heavy plastic food storage bags.

Vacuum packaging is also a good option. If the strips were not heated in marinade prior to drying, they can be heated in an oven after drying as an added safety measure. Place strips on a baking sheet, close together, but not touching or overlapping. For strips originally cut 1/4 inch thick or less, heat 10 minutes in an oven preheated to 275°F. (Thicker strips may require longer heating to reach 160°F.)

Making Jerky from Ground Meat - Jerky can be made from ground meat using special presses to form or shape the product. Disease-causing microorganisms are more difficult to eliminate in ground meat than in whole meat strips. (If ground meat is used, follow the general tips for safe handling of meat and poultry, above.) Be sure to follow the dehydrator manufacturer's directions when heating the product at the end of drying time. Again, an internal temperature of 160°F is necessary to eliminate disease-causing bacteria such as E. coli O157:H7, if present.

Storing the Jerky - Properly dried jerky will keep at room temperature two weeks in a sealed container. For best results, to increase shelf life and maintain best flavor and quality, refrigerate or freeze jerky.

This above information was extracted from "So Easy to Preserve", 6th ed. 2014. Bulletin 989, Cooperative Extension Service, The University of Georgia, Athens. Revised by Elizabeth L. Andress, Ph.D. and Judy A. Harrison, Ph.D., Extension Foods Specialists.

#### Additional Reading Material:

Making Jerky at Home Safely (PNW 632)

<http://ccesaratoga.org/resources/making-jerky>

## Great Jerky

3/4 teaspoon salt	2 Tablespoons soy sauce
1/4 teaspoon cracked pepper	1 Tablespoon Worcestershire Sauce
1 Tablespoon brown sugar	1 lb. lean meat, thinly sliced (3/16 to 1/4"thick)
1 garlic clove, crushed	

In a small bowl, combine all ingredients except meat. Stir to mix well. Place meat slices in a single layer on a clean flat surface. Generously spread both sides with the salt mixture. Place meat strips in a tightly covered glass, stoneware, plastic or stainless-steel container. Marinate 6 to 12 hours in the refrigerator, stirring occasionally and keeping the mixture tightly covered. Follow the general directions for drying.

## Teriyaki Jerky

1/2 teaspoon salt	1 garlic clove, crushed
1/8 teaspoon pepper	1/4 cup soy sauce
1/2 teaspoon ground ginger	1 lb. lean meat, thinly sliced (3/16 to 1/4"thick)
1 Tablespoon brown sugar	

In a small bowl, combine all ingredients except meat. Stir to mix well. Please meat 3 or 4 layers deep in a glass, stoneware, plastic or stainless-steel container, spooning mixture over each layer. Cover tightly. Marinate 6 to 12 hours in the refrigerator, stir occasionally and keep the mixture lightly covered. For general directs for drying.

## Western Barbecue Jerky

1 teaspoon salt	1 teaspoon dry mustard
1/4 teaspoon pepper	3 Tablespoon brown sugar
1/8 teaspoon cayenne pepper	1/3 cup red wine vinegar
1 teaspoon onion powder	1/3 cup ketchup
½ teaspoon garlic powder	1 lb. lean meat, thinly sliced (3/16 to 1/4"thick)

In a small bowl, combine all ingredients except meat. Stir to mix well. Please meat 3 or 4 layers deep in a glass, stoneware, plastic or stainless-steel container, spooning mixture over each layer. Cover tightly. Marinate 6 to 12 hours in the refrigerator, stir occasionally and keep the mixture lightly covered. For general directs for drying.

## Mild Mexican Jerky

1 teaspoon salt	1/2 teaspoon oregano, crushed
1/4 teaspoon pepper	1 teaspoon paprika
1 teaspoon chili powder	1 lb. lean meat, thinly sliced (3/16 to 1/4" thick)
1/2 teaspoon garlic powder	

In a small bowl, combine all ingredients except meat. Stir to mix well. Place meat slices in a single layer on a clean flat surface. Generously spread both sides with the salt mixture. Place meat strips in a tightly covered glass, stoneware, plastic or stainless-steel container. Marinate 6 to 12 hours in the refrigerator, stirring occasionally and keeping the mixture tightly covered. Follow the general directions for drying.

## Hawaiian Jerky

Pineapple juice gives jerky an island flavor

1 teaspoon salt	1 garlic clove, crushed
1 teaspoon ground ginger	1/4 cup pineapple juice
1 Tablespoon brown sugar	1/4 cup soy sauce
1/4 teaspoon pepper	1 lb. lean meat, thinly sliced (3/16 to 1/4" thick)
1/8 teaspoon cayenne pepper	

In a small bowl, combine all ingredients except meat. Stir to mix well. Please meat 3 or 4 layers deep in a glass, stoneware, plastic or stainless-steel container, spooning mixture over each layer. Cover tightly. Marinate 6 to 12 hours in the refrigerator, stir occasionally and keep the mixture lightly covered. For general directs for drying.

## Sweet and Sour Jerky

You'll be pleasantly surprised!

1 teaspoon salt	1 Tablespoon soy sauce
1/4 teaspoon pepper	1/4 cup red wine vinegar
1/2 teaspoon onion powder	1/4 cup pineapple juice
1 garlic clove, crushed	1 lb. lean meat, thinly sliced (3/16 to 1/4" thick)
3 Tablespoons brown sugar	

In a small bowl, combine all ingredients except meat. Stir to mix well. Please meat 3 or 4 layers deep in a glass, stoneware, plastic or stainless-steel container, spooning mixture over each layer. Cover tightly. Marinate 6 to 12 hours in the refrigerator, stir occasionally and keep the mixture lightly covered. For general directs for drying.

## BOILING WATER CANNING PROCESS

1. Before you start preparing your food, fill the canner halfway with clean water. This is approximately the level needed for a canner load of pint jars. For other sizes and numbers of jars, adjust the amount of water in the canner so it will be 1 to 2 inches over the top of the filled jars.
2. Preheat water to 140°F for raw-packed foods and to 180°F for hot-packed foods. Food preparation can begin while this water is preheating. Do not have the water boiling when you add the jars.
3. Fill, fit with lids, load onto the canner rack and use the handles to lower the rack into the water; or fill the canner with the rack in the bottom, one jar at a time, using a jar lifter. When using a jar lifter, make sure it is securely positioned below the neck of the jar (below the screw band of the lid). Keep the jar upright at all times. Tilting the jar could cause food to spill into the sealing area of the lid.
4. Add boiling water, if needed, so the water level is at least 1 inch above jar tops. Pour the water around the jars, not on them. For process times over 30 minutes, the water level should be at least 2 inches above the tops of the jars.
5. Turn heat to its highest position, cover the canner with its lid, and heat until the water in the canner boils vigorously.
6. Set the timer for the total minutes required for processing the food, adjusting for altitude.
7. Keep the canner covered and maintain a boil throughout the process schedule. The heat setting may be lowered a little as long as a complete boil is maintained for the entire process time. If the water stops boiling at any time during the process, bring the water back to a vigorous boil and begin the timing of the process over, from the beginning.
8. Add more boiling water, if needed, to keep the water level above the jars.
9. When the jars have boiled for the recommended time, turn off the heat and remove the canner lid. Wait no more than 5 minutes before removing jars.
10. Using a jar lifter, remove the jars without tipping and place them on a towel, leaving at least 1-inch spaces between the jars during cooling. Let jars sit undisturbed to cool at room temperature for 12 to 24 hours.



## ATMOSPHERIC STEAM CANNING PROCESS

1. Use research tested recipe and processing time developed for a boiling water canner when using an atmospheric steam canner. An atmospheric steam canner may be used with recipes approved for half-pint, pint, or quart jars.
2. Add enough water to the base of the canner to cover the rack. (Follow manufacturer recommendations.)
3. Preheat water to 140°F for raw-packed foods and to 180°F for hot-packed foods. Food preparation can begin while this water is preheating. Do not have the water boiling when you add the jars.
4. Heat jars prior to filling with hot liquid (raw or hot pack). Do not allow the jars to cool before filling.
5. Load filled jars, fitted with lids, onto the canner rack and place the lid on the canner base.
6. Turn heat to its highest position to boil the water until a steady column of steam (6-8 inches) appears from the vent hole(s) in the canner lid. Jars must be processed in pure steam environment.
7. If using a canner with a temperature sensor, begin processing time when the temperature marker is in the green zone for your altitude. If using a canner without a temperature sensor, begin processing time when a steady stream of steam is visible from the vent hole(s).
8. Set the timer for the total minutes required for processing the food, adjusting for altitude. Processing time must be limited to 45 minutes or less, including any modification for elevation. The processing time is limited by the amount of water in the canner base. When processing food, do not open the canner to add water.
9. Monitor the temperature sensor and/or steady stream of steam throughout the entire timed process. Regulate heat so that the canner maintains a temperature of 212°F. A canner that is boiling too vigorously can boil dry within 20 minutes. If a canner boils dry, the food is considered under-processed and therefore potentially unsafe.
10. At the end of the processing time, turn off the heat and wait 2 to 3 minutes. Carefully remove the lid, lifting the lid away from you.
11. Using a jar lifter, remove the jars without tipping and place them on a towel, leaving at least 1-inch spaces between the jars during cooling. Let jars sit undisturbed to cool at room temperature for 12 to 24 hours.



## PRESSURE CANNING PROCESS – QUICK STEPS

1. Use reputable, research-based recipe.
2. Prep work area, food and jars.
3. Heat 2-3” canner water (not boiling).  
Hot Pack: 180°F, Raw Pack: 140°F
4. Jars in canner; lid on; weight off; high heat.
5. Vent 10 minutes.
6. Weight on.
7. Pressurize; lower heat to maintain pressure.
8. Start time; process, adjust heat as needed.
9. Ding! Timer off; heat off.
10. Wait until pressure drops to 0.
11. Weight off.
12. Cool 10 minutes more.
13. Lid off; jars out.
14. Cool jars, undisturbed 12-24 hours.  
Check seals; remove rings, clean jars.
15. Label and store sealed jars.  
Cool, dry, dark location.  
Use within 1 year for best quality.