

# **Tips Recipes Information**



## **THE Sausage Source**

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## MAKING SAUSAGE

Ingredients for making homemade sausage are readily available at The Sausage Source. The recipes can be used for deer, elk, antelope, moose or other wild meat, which has been trimmed of fat. Meat from domestic sources can be used as well but some reduction in the amount of fat in the recipes is needed if the beef, pork or lamb contains fat. Some fat is good, as it adds to the flavor. Soy protein may be used as a substitute for the fat.

Any lean meat from any part of the carcass can be used for sausage. Most often meat from the back and hind legs is saved for roasts and steaks and boneless, fat-free lean from other areas of the carcass utilized for sausage. It is recommended that the lean be removed from the carcass and made into sausage as soon as possible (the day after the kill is best) to prevent unnecessary bacterial growth. Meat that has been frozen and thawed can also be used.

Freeze clean, edible trimmings immediately after they are removed from the carcass. The trimmings can be ground and fat added when they are thawed. Regardless of whether fresh lean trimmings or thawed lean trimmings are used, speed in sausage preparation is a must to prevent bacterial growth. Bacterial growth on game meat causes soured meat, which is unacceptable as a sausage ingredient.

The quality of the sausage produced is often proportional to the length of time fresh trimmings stand before they are used. Game meat trimmings should be removed from the carcass free of fat, hair, sinew, bloodshot and dirt. They should be chilled at 30 degrees Fahrenheit and made into sausage or frozen immediately.

If using natural casings, soak in cool water and rinse inside and out to remove salt. It's good to leave a little water in the casing as this will make it easier to feed or slide onto the sausage tube. See additional tips about casings on page 12.

## **FRESH ITALIAN SAUSAGE (Hot or Sweet)**

Recipe for 25 lbs

- ◇ 25 lbs. lean pork trims (85% lean)
- ◇ 3 lbs water
- ◇ 1 pkg Sausage Source Hot or Sweet Italian Sausage Seasoning

Grind all trims through 3/8" plate. Grind again through 1/8" plate. Add water and seasoning. Mix thoroughly. Stuff into casings, make patties, or package bulk.

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## **FRESH Bratwurst**

Recipe for 25 lbs

- ◇ 18 ¾ lbs. lean pork trims (85% lean)
- ◇ 6 ¼ lbs. regular pork trims (75% lean)
- ◇ 3 lbs water
- ◇ 1 pkg Sausage Source Bratwurst Seasoning

Grind lean trims through ¼" plate. Grind regular trims through 1/8" plate. Add water and seasoning. Mix thoroughly. Stuff into casings, make patties, or package bulk.

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## **BEEF/VENISON OR WILD GAME SAUSAGE**

Recipe for 25 lbs

- ◇ 18 lbs. beef or venison
- ◇ 7 lbs. pork butt or ground pork
- ◇ 4 cups cold water
- ◇ 1 pkg Sausage Source Seasoning without cure

Grind all venison and pork through large holed grinding plate on meat mixer. Mix all ingredients together well. Let stand refrigerated for 1 hour. Grind mixture into casings using large holed grinder plate for course sausages or fine holed for smoother sausage. Stuff into desired size links.

## **SUMMER SAUSAGE (Beef or Venison)**

Recipe for 25 lbs.

- ◇ 15 lbs. beef or venison
- ◇ 10 lbs. pork butt or ground pork
- ◇ 2 ½ cups cold water
- ◇ 1 pkg of Sausage Source Seasoning with cure

Grind all beef or venison and pork through large holed grinding plate on meat grinder. Sprinkle seasoning and cure into meat while mixing together. Mix in cold water. Mix all ingredients together well. Let stand refrigerated for 1 hour. Meat will turn a grayish color, which means it is cured. Stuff mixture into fibrous casings. Tie ends with heavy cotton string. Pre-heat oven to 200°F. Place sausages into oven until internal temperature reaches 150°-160°F (use an instant read thermometer) approximately 4-6 hours depending on size of sausages. Cool down with cold water until internal temperature reaches 100°F. Refrigerate. Process may be done with a smoker.

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## **BEEF STICK SAUSAGE (Hot or Mild)**

Recipe for 25 lbs.

- ◇ 25 lbs of 90% lean beef
- ◇ 1 pkg of Sausage Source Hot or Mild Beef Stick Seasoning with cure

Grind all beef through large holed grinding plate (3/8") on meat grinder. Sprinkle seasoning and cure into meat while mixing together. Meat will turn a grayish color, which means it is cured. Mix well. Regrind through 1/8" grinding plate, stuffing into sheep casings. Pre-heat smoker to 100°F. Drape sausage on sticks, pieces not touching. Insert temperature probe in one sausage. Run at 100°F for 1 hour with dampers wide open. Increase temperature to 165°F. Put ¾ of a pan of moistened sawdust on burner and smoke for 5 hours. Close top damper to 1/8 open and bottom damper to ¾ open. Cook until internal temperature reaches 150°-155°F. Turn smoker off and let cool to 100°F. Remove beef sticks to cooler.

## **DRY CURED PEPPERONI (Italian Style)**

Recipe for 25 lbs

- ◇ 15 lbs. lean pork butts
- ◇ 10 lbs. lean beef, venison or moose
- ◇ 1 pkg. Sausage Source Pepperoni Seasoning

Grind all meat through a 3/16" plate. Mix all meat well, adding all ingredients evenly. Then, regrind through a 1/8" plate. Mix well. The meat is now ready to stuff into hog casings. Hang at room temperature or 70°F for 2 days. Humidity is best for making pepperoni so hang during a damp or rainy day. Place pepperoni into cooler at 38°-40°F for at least 18 days.

Hang in smoke house for one hour at 110°F then raise temperature to 160°F for 8 hours with moist heat in the smoker. Remove from smoker or smoke house and chill in cold water to 100°F internal temperature. Hang at room temperature for 8-10 hours. Hang back in cooler 38°-40°F for 4 to 5 days. If not dry enough by that time, hang for 2 to 3 more days. This is a slow process, so be patient. It will be worth it!

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## **CORNEB BEEF**

Recipe for 25 lbs

- ◇ One 25 lb. batch pkg Sausage Source Corned Beef Seasoning
- ◇ 1 ½ gallons of ice cold water

Mix all but the packet of spices together until dissolved thoroughly. This is your brine. With a meat injector, pump beef briskets with brine (12 to 15% of the brisket's green weight) with at least one ounce per pound. After pumping, place meat flesh side up. Sprinkle corned beef spice over product in plastic tub or stainless steel container. Place next piece flesh side down on top of the last piece and sprinkle on it. Continue in this pattern until 25 lbs. is spiced. Next, add enough of the brine to cover the product completely and the container is full. Place cover over the container and weight the meat down. Make sure all the meat is covered with brine. Allow product to cure at 38°-40°F for 3-4 days. Then, remove product from brine. Rinse with cold water and dry for 1-2 hours. Enjoy!

## SMOKED HAMS OR PICNICS

- ◇ 5 gallons cold water
- ◇ 5 lbs. Sausage Source Maple Cure #159

Mix 5 gallons of cold water (35°-40°F) and 5 lbs (5 pkgs) of Sausage Source Maple Cure thoroughly together. To check proper mixture, use a salometer. In the absence of a salometer, use an egg. An egg will float to the top with the proper mixture. Inject meat with solution making sure the cure is pumped around the bones and in all the muscles. Place in plastic or stainless steel containers and cover completely with pickling brine for 4-5 days at 35°-45°F. Remove from solution after 4-5 days and wash surface with brush using warm water. Put product in stockinette(s) and hang on smoke sticks. Follow the smoking procedure on page 9.

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## SMOKED BACON

- ◇ 5 gallons cold water
- ◇ 5 lbs. Sausage Source Maple Cure #159

Mix 5 gallons of cold water (35°-40°F) and 5 lbs (5 pkgs) of Sausage Source Maple Cure thoroughly together. To check proper mixture, use a salometer. In the absence of a salometer, use an egg. An egg will float to the top with the proper mixture. Inject bellies (8-10% of gross weight) with above cure solution using a brine injector or pump. Place bellies in a plastic or stainless steel container and submerge in the same solution used to inject. Make sure bellies are submerged by weighting down, then cover for 4 days at 35°-45°F. Remove from cure and wash thoroughly with warm water. Let dry for several hours before smoking. Follow the smoking procedure on page 9.

## DRY RUB FOR BACON

- ◇ Sausage Source Maple Cure #159
  - 100 lbs of meat: 7lbs 4oz of cure
  - 50 lbs of meat = 3 lbs 1oz of cure
  - 25 lbs of meat = 2 lbs of cure
- ◇ Cold water
  - 100 lbs of meat: 1 gallon
  - 50 lbs of meat: ½ gallon
  - 25 lbs of meat: 1 quart

Rub cure on really thick per proportion chart above. Use plastic meat lug with cover. Add moisture, as noted in proportion chart above. Cover and keep at 45°F. Turn every 2 days, 6 days total time. If moisture dries, add moisture again to keep rub wet and sticky. Remove from container and wash in warm water. Dry for 1 to 2 hours. Hang in smoker and follow smoking procedure on page 9.

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## SPORTSMAN'S BEEF OR WILD GAME JERKY

Recipe for 25 lbs

- ◇ 25 lbs. lean game or beef
- ◇ 1 lb. of honey
- ◇ 2 pints water
- ◇ 1 pkg Sausage Source Sportsman's Jerky Seasoning #344

Grind meat through ½" hole plate (large). Mix in Jerky Seasoning #344. Add the 1 lb of honey and 2 pints of water. When thoroughly mixed, grind mixture again through 1/8" hole plate (small). Mix thoroughly so meat is tacky, and form strips by hand or by using the Jerky Shooter® or Jerky Cannon® (available at The Sausage Source). Another method would be to form in a pan and freeze for 1-½ hours, then remove and cut into strips with a serrated knife. Lay strips on screen and smoke at 155°F for about 6 hours or use a dehydrator. An oven can be used instead of a dehydrator, setting the oven at the lowest temperature with the door cracked open for 4-6 hours or until desired texture is reached. Cook jerky to room temperature and remove.



## SMOKING PROCEDURE

1. Pre-heat smoker to 90°F.
2. Hang product in smoker so that no parts being smoked are touching. Heat for 6 hours with damper wide open without smoking chips.
3. Then add moistened smoking chips or moistened sawdust and increase temperature to 130°F and smoke for 5 hours with top damper closed to 1/8 the way and bottom damper open to ¾ of the way.
4. Increase temperature to 150°F adding moistened chips or sawdust as needed.
5. After 4 hours, increase temperature to 170°F and smoke until internal temperature of the meat product is 150°-155°F.
6. Cool down to 100°F and place in cooler.

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## STORAGE TIMES FOR FREEZING

<i><b>Product</b></i>	<i><b>Recommended Storage Time (months)</b></i>
Beef, Lamb, Mutton, Veal & Venison	8—12
Casings	DO NOT FREEZE!
Fish	2—3
Ground Meat	3—4
Liver	3
Opossum, Rabbit, Squirrel	6—8
Oysters, Crab, Lobster	3—4
Pork, cured	1—2
Pork, fresh	6—8
Poultry, Turkey	12
Sausage	4—6
Shrimp	6

## **BOTULISM**

Botulism is a serious form of food poisoning caused by eating food contaminated with the deadly toxin botulin. Food borne botulism was first identified in Europe during the 1800's as a problem in sausage. The name botulin even comes from the Latin word for sausage, botulus. Botulin is particularly dangerous because it can exist without a foul odor or other sign of contamination. This is probably going to be more than you care to read about botulism but it is a very serious form of poisoning and precautions must be taken to prevent it. Symptoms of botulism poisoning usually appear suddenly within 18 to 36 hours after eating contaminated food. These symptoms include blurred or double vision, droopy eyelids, dry mouth, slurred speech, difficulty in swallowing, vomiting, diarrhea and muscle weakness. Botulism can lead to death without the proper medical treatment. The toxin is usually found in contaminated or improperly prepared canned foods. If you ever see a bulging can of food, do not open it—throw it away! It may very well be contaminated. Botulin can also exist in sausage. The conditions that are necessary to produce foods contaminated with botulin include lack of oxygen, low acidity, the presence of moisture, and temperatures between 40° and 140°F. All of these conditions can be present when smoking sausage: lack of oxygen from the smoking, low acidity and moisture in the meat and smoking temperatures in the above range.

## TRICHINOSIS

***What is Trichinosis?*** Trichinosis (trick-a-NO-sis) is a disease caused by a worm called Trichinella, which lives in animals including pigs, dogs, cats, horses, and wild animals such as bears, polar bears, foxes, wolves, walrus, seals, and rats. Trichinosis is rare in the United States.

***How is Trichinosis spread?*** You can get trichinosis by eating raw or undercooked meats, especially pork products and wild game, such as bear meat, seal, or walrus. Trichinosis is NOT spread from person to person.

***What are the symptoms of Trichinosis?*** Diarrhea, nausea, vomiting, stomach cramps, fever, muscle pain, eye swelling, fatigue, headache, and chills. How severe the symptoms are depends on how many worms were eaten in the meat. Most people have no symptoms or very mild symptoms. Symptoms usually begin 1 to 2 weeks after exposure. Diarrhea, nausea, vomiting and stomach cramps appear first, followed by muscle pain, eye swelling, fatigue, headache and chills. With severe infection, some people may have difficulty moving around or breathing. Death can occur.

***How do I know if I have Trichinosis?*** You cannot tell without seeing your doctor. Your doctor may collect a blood sample or sample of muscle tissue (biopsy).

***How is Trichinosis treated?*** You doctor can prescribe medicines (antibiotics) to treat the infection.

***How can Trichinosis be prevented?*** Always wash hands after handling raw meat. Do not eat raw or undercooked pork or wild game meats. Cook meat products until juices run clear or reach an internal temperature of 170°F. Curing, drying, smoking or microwaving does not always kill the worms. Use separate cutting boards for meat and other foods. Carefully clean all grinders, cutting boards, work surfaces, and utensils with soap and hot water after preparing raw meat. Cook all meat fed to pigs or wild animals. Do not allow pigs to eat uncooked carcasses of wild animals, including rats.

## **FREQUENTLY ASKED QUESTIONS—NATURAL CASINGS**

Information Provided by DeWied Casings

### **1. HOW DO YOU SOAK OUT CASINGS AND FOR HOW LONG?**

Salted Hog Casings:

For best results soak over night in refrigerator in water that starts out at 90° F (32.2°C). If in a hurry, follow these instructions but understand that you may not get maximum expansion capacity from the casing. Rushing the soaking process can result in the casing being sticky and they may not slide easily from the horn. This can result in breakage and sausage that is irregular in diameter or too small.

*The fast soak:*

- a. Rinse salt from casings
- b. soak in fresh water at 70° F (21.11°C) for 1 hour
- c. Soak in fresh water at 90° F (32.2°C) for 1 hour
- d. Place in fresh warm water 90° F (32.2°C) at the stuffing table

*Sheep Casings:*

- e. Soak in fresh water at 85-90° F (29.44°C - 32.2°C) for 30 minutes
- f. Place in fresh warm water at the stuffing table.

### **2. WHAT IS THE SHELF LIFE OF NATURAL CASINGS?**

Salt: 1 year or more

Preflushed in Net Pack: 6 months to one year.

Preflushed in Vacuum Pack: 6 months to one year.

Preflushed on plastic Tubes: 6 months to one year.

### **3. WHAT IS THE BEST WAY TO STORE NATURAL CASINGS?**

Store in the cooler at 40° (4.44°C) or less in brine or well salted.  
NEVER freeze casings.

#### **4. WHAT IS THE MOST POPULAR SIZE CASING FOR A FRESH AND SMOKED SAUSAGE?**

There are no standards dictating the size casing to be used for a particular sausage. The size casing you use for sausage should depend on what you want your sausage to look like. How many links do you want to make up a pound, etc.? (ie: 5 links per pound (436g) and 5 inches (127mm) per link). Traditionally, smaller sizes are used for fresh sausage and larger sizes for smoked sausage.

#### **5. MY CASINGS SMELL BAD; ARE THEY STILL GOOD?**

Usually Yes. When your natural casings first arrive there may be some gas build up in the container, especially in hot weather. This can smell pretty strong.

#### **6. WHAT CAN I DO TO KNOCK OUT THE BAD SMELL IN MY CASINGS?**

Usually all it needs is airing out. Leave the container open in the refrigerator for a while. Or, take casings out of the container and air them out. If it is really bad, rinse casings in fresh water, re-soak in brine and the smell will usually dissipate.

Putting baking soda in your soak water may also help.  
If odor persists, call The Sausage Source for assistance.

#### **7. WHAT CAN I DO TO IMPROVE THE BITE ON THE CASINGS?**

Cooking a sausage can toughen any casing. To maximize the tender bite of a casing, cook with moisture. Prick sausage before grilling.

Some casings are tougher because of their origin. They are usually cheap. The tough ones are usually thick and opaque. Smoke cycles can also affect the bite of a casing. Humidity during the smoke cycle is very important to maximize a tender eating experience. Consult your smoke house supplier about the best smoke cycle for the most tender bite.

#### **8. WHAT IS THE LENGTH OF A BUNDLE OR HANK OF CASINGS?**

The traditional hank or bundle of hog or sheep casing was 100 yards. However, today there is no standard length.

## **9. HOW MANY STRANDS SHOULD A BUNDLE HAVE?**

The number of strands in a bundle depends on how uniform the diameter of the sausage must be and how long the individual strands of casing must be. The fewer strands and the longer they are, the less uniform the casings will be. In general, a hog casing will have 14-18 strands and a sheep casing will have 12-14 strand.

## **10. HOW LONG DO YOU SMOKE SAUSAGE?**

The length of your smoke cycle becomes part of your sausage formulation. Your smoke cycle depends on the type of smokehouse you have and the type of product you are smoking. See page 9 for these instructions.

## **11. HOW DO YOU KEEP UNUSED CASINGS?**

Cover unused casings in brine solution or granulated salt and store in cooler at 40° (4.44°C) or less but do not freeze.

## **12. HOW TIGHT SHOULD THE SAUSAGE BE STUFFED?**

How tight you stuff sausage casings depends on the type of sausage and how it is to be linked. For natural casings: When making a rope sausage, without linking, stuff to slightly less than the maximum expansion of the casings. If linking by machine, stuff 3-4 mm (1/8") below the maximum expansion of the casing. Consult the instructions for the linker or your linker supplier because there can be significant differences in equipment. If linking by hand stuff 4-5 mm (1/4") below the maximum expansion of the casing. Hand linking can put uneven stress on the casing. By under stuffing, you can reduce breakage during linking. Check the firmness of the link and adjust the stuffing pressure.

## **13. WHY ARE THE CASINGS TOUGH AFTER COOKING FRESH SAUSAGE?**

- Sausage was cooked in a pan too hot and too quickly.
- Casings were not soaked long enough.
- Origin of casing.
- Sausage was under stuffed

#### **14. HOW CAN I MAKE MY CASINGS MORE TENDER?**

- Soak casings longer
- Add lemon juice or pineapple juice to the soak water.
- Use proper moisture levels during smoke cycle.

#### **15. WHAT IS THE WEBBY LOOKING SPOT ON MY CASINGS?**

This is a patch of peyer (Pie-air) which is scarring resulting from the cleaning process and the removal of lymph nodes. All natural casings will have some scarring.

#### **16. WHY DO MY COLORED CASINGS GET DARK STREAKS WHEN I SMOKE THEM?**

- Dry cycle was too short
- Showering with water containing chlorine or high mineral levels.

#### **17. WHAT PRODUCTS ARE MADE IN SHEEP CASINGS AND HOG CASINGS?**

The kind of casing used for a particular sausage will depend on what you want the sausage to look like and tradition. Ask your supplier, The Sausage Source, which casing would be appropriate for the sausage you want to make.

## **FREQUENTLY ASKED QUESTIONS—COLLAGEN CASINGS**

Information Provided by DeWied Casings

### **1. HOW TIGHT SHOULD COLLAGEN BE STUFFED?**

Collagen is not as elastic as natural casing. Therefore, it is not as forgiving for over stuffing. Twist linking requires under stuffing by an amount which works best for you.

### **2. DO YOU NEED TO SOAK COLLAGEN?**

No. Collagen casings should be kept dry and never soaked before using.

### **3. IS COLLAGEN EDIBLE?**

Yes. It is a natural protein synthesized into a casing. Some wide diameters and collagen used for large slicing products may be too tough to chew but they are technically edible.

### **4. HOW DO YOU SMOKE COLLAGEN CASINGS?**

The smoke cycle would depend on the type product to be smoked and the type of smoke house used.

### **5. WHAT IS THE BEST WAY TO STORE COLLAGEN CASINGS?**

Place unused portion of collagen in a plastic zip lock bag and store in the refrigerator.

### **6. WHY CAN'T I TWIST LINK MY COLLAGEN CASINGS SAUSAGE BY HAND?**

Collagen has "memory" therefore it will always want to go back to it's natural state. However, it can be linked by hand if braided to hold the twists. Some linking equipment can be used quite successfully.

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