

A rough bastards guide to: Sausage Making, by Joe_90

Bit of my background, I'm a geologist by trade and have ended up as the manger of a soils testing laboratory. I started off making mince from Tahr when living in Canterbury. Tahr are basically goats so getting "nice" cuts of meat took too long. That gradually progressed to thinking what else I could do apart from lots of lasagne mince. With a family of 5, mince is still a big part of the menu but sausage makes for an easy meal. Since moving to Central I've been fortunate enough to get access to a local station where deer are fairly easy to find.

A good starting point before trying something new involves thinking "How hard can it be?" Usually it's harder than it looks. Happily by that point you're already started, so it's best to just carry on.

Note on food safety,

The temperature danger zone for bacteria in red meat is 4 - 60°C. With a whole animal hanging in the shed/tree there isn't a lot of meat exposed to airborne bacteria. All that changes when you make mince! Effectively it's 100% exposed to air so keeping it cool is a good idea. Easier said than done in midsummer.

The way I do sausage is in 11kg or 12kg batches. That uses one bag of off-the-shelf sausage meal. It's not fully made from scratch but it's effective for both cost and time.

Step 1, shoot a deer/several tahr/lots of hares. One batch takes 7kg of mince meat. (more on adding fat later)

All the scrappy bits that don't make good steak and you can't be arsed cutting into cubes get put through the mincer. 500g or 1kg bags are convenient. Both for storage pre sausage making or ready to use in a meal.

I started with a \$50 mincer that I needed earmuffs to work around. It did the job just fine for 5 years and 200kg+ meat before the gear box wore out. I then upgraded to a light commercial unit for \$300. It's whisper quiet with enough torque to happily eat your fingers. With the smaller unit I needed to stop and clear out any sinew build up from the round plate with holes every half hour or so. This isn't an issue with the more powerful one.



Step 2, find some fat. Locally I've found pork fat/trimmings from a butcher can be around \$10-\$15/kg. Better to find a fatty hogget from a farmer and mix mutton fat in with venison. The pork trimmings will need to get minced too.

Step 3, decide what flavour of sausage you want. At this point I cheat and buy the sausage meal from Dunninghams. They are the commercial supplier for most butcheries.

<https://www.dunninghams.co.nz/Ingredients/sausage-meals>

It's a packet of dry powder that's very concentrated. For most flavours the mix is:
1kg of meal, 2kg water, 9kg of meat.

I've found 2kg of fat to 7kg of venison mince is about the right ratio.

With no fat and more liquid added in the form of tinned tomatoes, red wine, and onions in the blender. The sausages come out very dense and need plenty of oil when cooking or they stick to the pan.

1kg fat: 8kg mince, better, still need some oil for cooking but much nicer.

2kg fat: 7kg mince, pretty well spot on.

3kg and above: once the sausage in the pan gets warm it's shallow fried in fat. Very tasty but not the healthiest option. Not as nice to eat cold for lunch with a high fat content too.



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Step 4, carefully weigh it all up and start mixing. Use whatever scales you can, bathroom scales will work just fine if they are on a firm level surface.

(I cocked up once and was 1kg of meat light, resulting 11kg of snags was edible but very flavoursome. Worked best on pizzas or in a pasta dish kind of thing)



Mixing the flavour powder with the water helps with mixing it through the meat. It will make almost a paste.



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The 26L soft plastic buckets from Mitre 10 are great for mixing, stuff doesn't get stuck in the corners as it's a round container. Big enough to mix without any overflow. Clean hands are the best tool for mixing, it's not heaps of fun being arm deep in chilled mix. Your fingers will go numb after a while.

I wear gloves, more to keep me clean. The mixture is very sticky and it easier to bin a glove then end up with meat stuck to everything.



At this point I'll put it through the mincer again. Both to combine the ingredients and to make a finer sausage texture. Closer to a paste than mince. Changing the size of the plate in the mincer will adjust the texture if you want.



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Step 5, sausage casing, the polite word for intestine. I use natural hog casing around 34mm diameter. It's one of the cheaper options and makes a nice size finished sausage.

Feel free to make a sausage girth comment in here.

The casing comes vac packed in strong brine. You need to untangle a couple of lengths (around 8m each) rinse then put them in water to soak for minimum of half an hour. Soaking them longer is fine.

Put the casing on the output tube on the stuffer. It's a bit fiddly and water will drip off, having a cloth handy to wipe the puddle off the bench is useful.

I've found 2 lengths is about right for 1 batch (12kg of sausage mixture)



Step 6, fill up the stuffing machine. This is just a big cylinder with a piston in it. A wee valve lets air out top so the sausages don't end up with too many voids. I have yet to work out a better way than loading the raw mixture in by the handful. It's a messy step. The one I have is a 7 litre capacity vertical arrangement. There's a gear box that drives the piston down into the cylinder. It cost me around \$400. The single most expensive part of the job.



Step 7, slowly crank the handle until mixture is about to come out. I used to tie a knot in the casings to start filling but don't now. Having 50mm of casing off the end is enough for it to start feeding into. You need to get a balance of crank handle speed and feeding off speed to get sausage with good fill out without being over full. If the casings are too full when you tie off the bunches or cook them they will split open.

(if you have ever picked up a turd you'll know the consistency you're aiming for, terrible analogy but it's the best I can think of)

One batch (12kg total) takes 2 fills of the 7 litre stuffer. Usually this is the point to reload more casings on too. This isn't a bad thing, if the casings stuffed with sausage meat get too long they are heavy and get tricky to manage.



Step 8, tying the links... This guy explains it better than I can: "[How To Tie/Link Sausages](https://www.youtube.com/watch?v=UY5TiciEry4)"

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Having nice bunches looks very impressive but also serves a practical purpose. It helps when hanging to let them dry out and makes it easier to cut off bunches for bagging and storage.



Step 9, ideally let them rest overnight/24hrs in the fridge. This is to let the casing dry out, the meal to set and the flavour "soak in". I would call this an optional step. Nice to do but by no means required. Don't let the lack of chiller stop you.



Step 10, bag em and tag em. . Practically, cutting off 6 sausage to a bag is around 500g. It's about the right dinner size for a for a small family. I've taken to 9 per bag, good for dinner with some left over for lunch the next day

I bought a neck sealing tape machine, like the type a fruit shop uses. I run different tape colours for different flavours. Frozen sausage all looks the same to me otherwise. Also helps make it look the part if you're gifting them to others.

The tape machine I got from PrimePac, plastic bags I buy from Dunninghams, the tape is office max or whoever has the best price that week. The 30 micron is the thickness of the bag, I use a thicker bag, easier to work with and less likely to get a hole while living in the freezer and getting freezer burn. I suspect vacuum packing would be the ideal but not something I have.



Other:

Stainless steel S-hooks are really good for hanging the finished links on. The first time I had to lay it all out on oven dishes. It worked but was a pain. <https://www.dunninghams.co.nz/HOOS15006>

The gambrel I made from 10mm steel rod, bent in the vice with a bit of pipe for leverage. The rod I got for free as an offcut from a local fabrication shop. I use that for hanging the animal while boning out.

Knives and chopping board, I've got a collection of knives that are under \$20 each. Use whatever you've got provided it's sharp.

Chopping board is just plywood. Having a big one is good for dealing with the back leg of a red deer. It's 500mm x 900mm, that happened to be the size I had left over from another project...

Before use **ALL** the gear gets a spay with Sodium Percarbonate solution. Homebrew steriliser is the common term. Homebrew shops or some supermarkets sell it.



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