Canning Times Chart

USDA processing times for 69 rows, by jar size and altitude — pressure canning and boiling water canning, kept apart because their altitude rules are opposites.

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READ THIS BEFORE THE NUMBERS

Times below assume sea level to 1,000 ft and the exact recipes in the *USDA Complete Guide to Home Canning*. They are not interchangeable with another recipe of the same name, and they are not a substitute for knowing the method. Headspace, pack style, acidification, venting and cooling rules still apply.

01 Two schedules, two different altitude rules

This is the part that gets people into trouble. Pressure canning and boiling water canning adjust for altitude in opposite ways.

Method	What changes	Weighted gauge	Dial gauge
Pressure canner	Pressure goes up. Time stays the same.	10 lb to 1,000 ft **15 lb above 1,000 ft**	0–2,000 ft **11 lb** 2,001–4,000 ft **12 lb** 4,001–6,000 ft **13 lb** 6,001–8,000 ft **14 lb**
Boiling water canner	Time goes up. Pressure does not apply.	0–1,000 ft **listed time** 1,001–3,000 ft **+5 min** 3,001–6,000 ft **+10 min** Above 6,000 ft **+15 min**	

The weighted gauge has only **two** bands, not four. Between 1,001 and 2,000 ft it is 15 lb, not 10 — a common and unsafe mistake.

02 Pressure canning — low-acid foods

Vegetables, meat, poultry, seafood and stock. **Never** boiling water: none of these is acidic enough to stop *Clostridium botulinum* at boiling temperature.

Food	Pack	Pint	Quart	Headspace	Minutes
Asparagus, spears or pieces	hot or raw	30	40	1 in	same at all altitudes
Beans or peas, shelled and dried	hot	75	90	1 in	
Beans, baked	hot	65	75	1 in	
Beans, fresh lima, shelled	hot or raw	40	50	1 in	
Beans, snap or Italian, pieces green beans, wax beans	hot or raw	20	25	1 in	
Beets, whole, cubed or sliced	hot	30	35	1 in	
Carrots, sliced or diced	hot or raw	25	30	1 in	
Corn, cream style	hot	85	—	1 in	
Corn, whole kernel	hot or raw	55	85	1 in	
Mixed vegetables	hot	75	90	1 in	
Mushrooms, whole or sliced	hot	45	—	1 in	
Okra	hot	25	40	1 in	
Peas, green or English, shelled	hot or raw	40	40	1 in	
Peppers	hot	35	—	1 in	
Potatoes, sweet, pieces or whole	hot	65	90	1 in	
Potatoes, white, cubed or whole	hot	35	40	1 in	
Pumpkins and winter squash, cubed	hot	55	90	1 in	
Spinach and other greens	hot	70	90	1 in	
Squash, winter, cubed	hot	55	90	1 in	
Succotash	hot or raw	60	85	1 in	
Chicken or rabbit, without bones	hot or raw	75	90	1¼ in	
Chicken or rabbit, with bones	hot or raw	65	75	1¼ in	
Ground or chopped meat	hot	75	90	1 in	
Strips, cubes or chunks of meat	hot or raw	75	90	1 in	

Food	Pack	Pint	Quart	Headspace	Minutes
Meat stock (broth)	hot	20	25	1 in	
Soup mixes	hot	60	75	1 in	

An em dash means the USDA does not recommend that jar size for that food — it is not a missing figure.

03 Boiling water — tomatoes

Tomatoes are the borderline case. Their pH sits close enough to the line that the USDA requires added acid in every jar, even though the fruit tastes acidic and even if you pressure can it afterwards.

Product	Pack	Pint 0–1,000	1,001–3,000	3,001–6,000	Above 6,000	Quart 0–1,000	Quart higher up
Tomato juice	hot	35	40	45	50	40	45 / 50 / 55
Tomato-vegetable juice blend	hot	35	40	45	50	40	45 / 50 / 55
Crushed tomatoes	hot	35	40	45	50	45	50 / 55 / 60
Standard tomato sauce	hot	35	40	45	50	40	45 / 50 / 55
Whole or halved, packed in water	hot/raw	40	45	50	55	45	50 / 55 / 60
Whole or halved, in tomato juice	hot/raw	85	90	95	100	85	90 / 95 / 100
Whole or halved, raw, no liquid	raw	85	90	95	100	85	90 / 95 / 100

Quart column reads 1,001–3,000 / 3,001–6,000 / above 6,000, matching the pint bands to its left.

ACID IS NOT OPTIONAL

Add **1 tablespoon bottled lemon juice**, or ¼ teaspoon citric acid, or 2 tablespoons of 5% vinegar **per pint**. Double all three for a quart. Bottled juice only — fresh lemon varies too much to be a substitute.

04 Boiling water — pickles

Vinegar moves these below the acid line, which is why vegetables that need a pressure canner on their own can be boiling-water processed once pickled.

TWO ALTITUDE LAYOUTS, NOT ONE

Some of these foods use **four** altitude bands — 0–1,000 / 1,001–3,000 / 3,001–6,000 / above 6,000 ft. Others use **three**, merging the middle two into a single 1,001–6,000 ft band. The band count is printed with each food, because a number only means something against the right header.

Pickle	Pack, jar	Bands	0–1,000	1,001–3,000 or 1,001–6,000	3,001–6,000	Above 6,000
Sauerkraut	hot, pint	4	10	15	15	20
Sauerkraut	hot, quart	4	15	20	20	25
Sauerkraut	raw, pint	4	20	25	30	35
Sauerkraut	raw, quart	4	25	30	35	40
Pickled beets	hot, pint or quart	4	30	35	40	45
Bread-and-butter pickles	hot, pint or quart	3	10	15	—	20
Quick fresh-pack dill	raw, pint	3	10	15	—	20
Quick fresh-pack dill	raw, quart	3	15	20	—	25
Pickled three-bean salad	hot, half pint or pint	3	15	20	—	25
Pickled mixed vegetables	hot, pint	3	5	10	—	15
Pickled mixed vegetables	hot, quart	3	10	15	—	20

Read the bands column before the numbers. Rows marked 4 use the full four-band schedule. Rows marked 3 collapse 1,001–3,000 and 3,001–6,000 into one; the em dash marks the band that does not exist for them. Applying a four-band reading to a three-band row produces a figure that looks plausible and is five minutes too short.

05 Boiling water — jams and preserves

Half-pint or pint jars, ¼ inch headspace, hot pack, **three altitude bands**. Whether the jar was pre-sterilised changes the time, so there are two schedules rather than one.

Jar condition	0–1,000 ft	1,001–6,000 ft	Above 6,000 ft	Jar size
Pre-sterilised jars	5	10	15	half pint or pint
Clean hot jars	10	15	20	half pint or pint

Covers jams and jellies with or without added pectin. The two rows differ by five minutes at every altitude, and the distinction is not cosmetic: a clean hot jar has not been boiled, so it starts with a higher load and gets the longer process.

NOT RECOMMENDED

Paraffin or wax seals for any sweet spread, including jelly. **The inversion method** — turning filled jars upside down on the lid instead of processing — at all, in place of boiling water processing.

A jam made from a recipe outside the USDA guide needs its own tested process time. This schedule covers the guide's recipes, not every jam in existence.

06 The four rules that matter more than the table

1. **Never shorten a time.** Start counting when the canner reaches pressure, or when the water returns to a rolling boil — not when the jars go in.
2. **Altitude is not optional.** A weighted gauge is 15 lb everywhere above 1,000 ft. A boiling water canner adds minutes instead. Using sea-level numbers at 3,000 ft is under-processing.
3. **Recipe and time travel together.** Every time here belongs to a specific preparation. Substituting an ingredient or changing proportions invalidates the number.
4. **Cool, check the seal, store without the ring.** Remove rings after 24 hours, check the lid is concave, and discard any jar that leaked, spurted on opening, or smells wrong.

07 Sources

1. **USDA** — *Complete Guide to Home Canning*, Agriculture Information Bulletin No. 539. The processing times in this chart are the recommendations published there.
2. **National Center for Home Food Preservation** — Appendix B, *Home Canning Summary Sheets for Judges*, which tabulates the USDA times by food, pack style, jar size and altitude. nchfp.uga.edu/papers/techbulletin/3a_AppendixB_Full.pdf
3. **NCHFP** — *Using Pressure Canners* and *Using Boiling Water Canners*, for the altitude schedules and the reasons behind them. nchfp.uga.edu/how/can

Every processing time on this chart is reproduced from the USDA summary tables. The altitude explanation, the two-schedule comparison and the warning framing are our own summary of those sources, not a quotation. This chart is a reference for people who already know the method; it does not teach canning.