Why blanch?

Why blanch vegetables before freezing? Blanching vegetables before freezing them is critical to their quality, but not their safety. Blanching is scalding vegetables in boiling water or steam for a short time. It is typically followed by quick, thorough cooling in very cold or ice water. Blanching stops enzyme actions which otherwise cause loss of flavor, color and texture. In addition, blanching removes some surface dirt and microorganisms, brightens color and helps slow vitamin losses. It also wilts greens and softens some vegetables (broccoli, asparagus) and makes them easier to pack. It is critical to use the correct blanching time for the vegetable and size (see table below). Under-blanching stimulates enzyme activity and thus is worse than no blanching. Over-blanching leads to partial cooking and causes loss of flavor, color, vitamins and minerals.

For home freezing, the most satisfactory way to blanch all vegetables is in boiling water. General instructions for water blanching follow:

- 1. Use a blancher with a blanching basket and cover, or fit a wire basket into a large pot with a lid.
- 2. Use one gallon water per pound of prepared vegetables.
- 3. Put vegetable in blanching basket and lower into vigorously boiling water. Place lid on blancher. The water should return to boiling within 1 minute, or too much vegetable is being used for the amount of boiling water.
- 4. Start counting blanching time as soon as the water returns to a boil.
- 5. Keep heat high for the time given in the directions for the vegetable you are freezing.
- 6. Immediately plunge basket of vegetables into a large quantity of cold water, 60°F or below.
- 7. Change water frequently or use cold running water or ice water. If ice is used, about one pound of ice for each pound of vegetable is needed.
- 8. Cooling vegetables should take the same amount of time as blanching.
- 9. Drain vegetables thoroughly after cooling. Extra moisture can cause loss of quality when vegetables are frozen.

Vegetable	Water Blanching Time (minutes)	Vegetable
Artichoke-Globe (Hearts)	7	Collard Greens All Other Greens
Asparagus Small Stalk Medium Stalk Large Stalk	2 3 4	Kohlrabi Whole Cubes
Beans-Snap, Green, or Wax	3	Okra

		Small Pods Large Pods
Beans-Lima, Butter, or Pinto Small Medium Large	2 3 4	Onions (<i>blanch un</i> <i>heated</i>) Rings
Broccoli (flowerets 1½ inches across)	3	Peas-Edible Pod
Brussel Sprouts Small Heads Medium Heads Large Heads	3 4 5	Peas-Field (blackeye)
Cabbage or Chinese Cabbage (shredded)	1 ½ in	Peas-Green
Carrots- Small Carrots-Diced, Sliced or Lengthwise Strips	5 2	Peppers-Sweet Halves Strips or Rings
Cauliflower (flowerets, 1 in across)	3	Potatoes-Irish (New)
Corn-on-the-cob Small Ears Medium Ears Large Ears Whole Kernel or Cream Style Corn (blanched before cutting corn off cob)	7 9 11 4	Turnips or Parsnips Cubed
From "So Easy to Preserve", pages 267-268.		

Steam blanching is applicable to broccoli, pumpkin, sweet potatoes and winter squash; blanching with both steam and boiling water works satisfactorily. Steam blanching takes about 1½ times longer than water blanching. For more details, see the references below.

Sources cited:

Andress, E.L. and J.H. Harrison. 2006. So Easy to Preserve, 5th edition. Bulletin 989, Cooperative Extension Service, The University of Georgia, Athens.

National Center for Home Food Preservation How do I...Freeze. Blanching vegetables. http://nchfp.uga.edu/how/freeze/blanching.html

Clemson Home & Garden Information Center fact sheets (https://hgic.clemson.edu)

- HGIC 3060 Freezing Basics
- HGIC 3063 Freezing Fruits & Vegetables
- HGIC 3067 Freezing Fruits, Step by Step