



# Weights and Processed Yields of Fruits and Vegetables in Retail Containers

Retail or direct marketing at farmer's markets, roadside markets, stands and pick-your-own farms is an important and growing method of marketing fresh fruits and vegetables in Georgia. However, many of the containers used in the wholesale trade are not practical for direct marketing to consumers who desire fruits and vegetables in small quantities. The retail marketer has the option of selling his product in small volume containers or by count when scales are unavailable.

Containers available for retail marketing come in a wide range of sizes and materials. Some of the more common retail containers are presented in Table 1.

**Table 1. Common Retail Containers**

COMMON NAME	MATERIAL	COMMON SIZE(S)
<b>Bags</b>	Paper and polyethylene, often with handles	¼ peck to ½ bushel
	Kraft paper bags	Grocery bag - 2/3 bushel No. 20 bag - 8 quarts No. 10 bag - 7 quarts No. 8 bag - 4 quarts No. 2 bag - 1 quart
<b>Baskets</b>	Wood	¼, ½ and 1 peck; ½ and 1 bushel
<b>Boxes, Cartons and Hampers</b>	Corrugated paper, often waved, or wood	from ½ peck to 1 bushel
<b>Fruit and Vegetable Baskets</b>	Corrugated paper with handles	2 to 8 quarts
<b>Fruit Tills or Cups</b>	Pulp, cardboard, plastic, corrugated paper or wood	½ pint to 4 quarts
<b>Trays</b>	Corrugated paper	6 to 8 quarts (10 to 15 pounds)

Under specific fruit and vegetable crops, retail containers are compared with the more common containers (bushels, lugs, etc.) that are used in the wholesale trade (tables 2 and 3). In addition, weights and approximate yields for canning and freezing of fruits and vegetables in some of the common retail containers are presented for use in retail marketing. Because processed yields can vary so much based on size of produce and processing method, consider the indicated yields to be approximate values.

**Table 2. Weights and Approximate Processed Yields for Fruits**

PRODUCT	RETAIL VOLUME	NET WEIGHT (LBS)	PROCESSED YIELD
<b>Apples</b>	bushel (bu.)	42 to 48	1 bushel = 15 to 18 qt. canned applesauce = 30 to 36 qt. frozen applesauce = 10 to 12 qt. juice
	½ bushel bag	24	1 peck (32 med. apples) = 4 qt. canned 1¼ to 1½ lb. fresh = 1 pt. frozen
	peck	10 to 14	2½ to 3 lb. fresh = 1 qt. canned 1 cup pared, sliced = ¼ lb.
<b>Blackberries</b>	6-qt. tray	10 to 12	1½ to 3 lb. = 1 qt. canned
	gallon	5 to 6	
	quart	1¼ to 1½	

PRODUCT	RETAIL VOLUME	NET WEIGHT (LBS)	PROCESSED YIELD
<b>Blueberries</b>	6-qt. tray	9 to 12	2¼ to 3 lb. = 1 qt. canned
	gallon	6 to 8	1 pt fresh = 1 pt. frozen
	quart	1½ to 2	1 cup = ⅓ lb.
	pint	¾ to 1	1 cup = ⅓ lb.
<b>Cherries</b>	lug	15 to 16	2 to 2½ lb. = 1 qt. canned, unpitted
	quart	1½ to 1¾	1 pt. = 1 pt. frozen, unpitted
	pint	1¼ to 1½	1 cup = ⅓ lb.
<b>Grapes</b> (with stems)	bushel	44 to 50	1 bu. = 16 qt. of juice
	lug	24 to 28	1 cup (whole, stemmed) = ⅓ lb.
	2-qt. basket	2½ to 3	
<b>Peaches</b>	bushel	48 to 52	1 bu. = 18 to 24 qt. canned
	½ bushel bag	24	2 to 2½ lb. = 1 qt. canned
	lug	19 to 22	1 to 1½ lb. = 1 pt. frozen
	peck	12 to 14	1 cup = ⅔ lb.
<b>Pears</b>	bushel	48 to 50	1 bu. = 20 to 25 qt. canned
	lug	21 to 24	2 to 2½ lb. = 1 qt. canned
	peck	12 to 14	1 to 1½ lb. = 1 pt. frozen 1 cup pared, sliced = ⅔ lb.
<b>Plums</b>	bushel	50 to 56	1 bu. = 24 to 30 qt. canned
	peck	13 to 15	2 to 2½ lb. = 1 qt. canned 1 cup halves = ⅓ lb.
<b>Raspberries</b>	6-qt. tray	8 to 10	1 cup = ⅓ lb.
	3-qt. tray	4	
	quart	1¼ to 1½	
	pint	¾	
<b>Strawberries</b>	quart	1¼ to 1½	1 lb. = 1 pt. frozen
	4-qt. basket	6	
	6-qt. basket	10 to 12	
	8-qt. basket	12 to 15	
	8-qt. flat	12	
	24-qt. crate	36	

**Table 3. Weights and Approximate Processed Yields for Vegetables**

PRODUCT	RETAIL VOLUME	NET WEIGHT* (LBS)	PROCESSED YIELD	COMMENTS
<b>Asparagus</b>	bushel (bu.)	24	1 to 1½ lb. = 1 pt. frozen	often sold in bunches weighing 1½ to 2 lb. each
	pyramid crate	32	3 to 4 lb. = 1 qt. canned	
<b>Beans, Lima</b>	bushel	30	1 bu. = 12 to 16 pt. frozen	
	peck	8 to 9	3 to 5 lb. = 1 qt. canned	
<b>Beans, Snap</b>	bushel	28 to 30	1 bu. = 30 to 45 pt. frozen	
	peck	8	1½ to 2½ lb. = 1 qt. canned 1 bu. = about 15-16 qt. canned	
<b>Beets</b>	bushel, topped	52	1 bu. = 35 to 42 pt. frozen 2 to 3½ lb. = 1 qt. canned	often sold in 2 lb. bunches with leaves
<b>Broccoli</b>	bushel	23 to 25	1 bu. = 10 to 12 qt. canned	usually sold by the head or bunch weighing 1 to 1½ lb.
			1 lb. = 1 pt. frozen	
<b>Brussels Sprouts</b>	carton, loose pack	25	1 qt. = 1½ pt. frozen	
	quart	1½		
<b>Cabbage</b>	flat crate	53 to 60	3 lb. = 1 qt. canned sauerkraut	often sold by the head, varying in size with variety and tightness of head, usually 2 to 6 lbs.
	carton	53	1 lb. = 2 cups cooked 1 lb. = 4 cups shredded	

<b>PRODUCT</b>	<b>RETAIL VOLUME</b>	<b>NET WEIGHT* (LBS)</b>	<b>PROCESSED YIELD</b>	<b>COMMENTS</b>
<b>Carrots</b>	bushel, topped	50	1 bu. = 32 to 40 pt. frozen	often sold in 1 lb. bunch with tops
	carton packed 2 doz. bunches of 1 lb. ea.	23 to 27	2 to 3 lbs. = 1 qt. canned	
<b>Cauliflower</b>	carton of 12 to 16 trimmed	18 to 24	2 med. heads = 3 pt. frozen, or 1½ qt. canned	usually sold as 1 to 1½ lb. heads
<b>Collards</b>	Sold by doz. bunches: 3 plants per bunch from N. Ga., 5-7 plants S. Ga. from direct-seeded crop		¾-1 lb. = 1 pt.	markets desire bunches to weigh 4 lbs.
<b>Corn, Sweet</b>	bushel	35	60 ears = 14 to 17 pt. frozen	usually sold by doz. which weigh 6 to 8 lb. in husk
	wirebound crates	42 to 50	1 doz. ears = 1 to 1½ qt. canned	
<b>Cucumbers</b>	bushel	48 to 50	1 bu. = 24 qt. of dill pickles	sometimes sold by count
	peck	12 to 13		
<b>Eggplants</b>	bushel	33 to 35		sometimes sold by count
<b>Greens</b>	bushel	18 to 20	1 to 1½ lb. = 1 pt. frozen	mustard, spinach, & turnip often sold in 1 to 1½ lb. bunches or bag
<b>Kale</b>	bushel	18	1 bu. = 6 to 9 qt. canned	also sold in 1 to 1½ lb. bunches
			12 to 18 pt. frozen	
<b>Muskmelons</b>	bushel	48		usually sold by count; vary widely in size by variety, 3 to 6 lb. each
<b>Okra</b>	tall bushel hamper	26 to 30	1 bu. = 17 qt. canned	
	12 qt. basket	15 to 18	34 to 40 pt. frozen	
<b>Onions</b>	dry, sack	50		
	bunch, green - 48 bunches	15 to 18		
<b>Peas, English green (unshelled)</b>	bushel	28 to 30	1 bu. = 12 to 15 pt. frozen	
	peck	7 to 8	3 to 6 lb. = 1 qt. canned	
<b>Peas, Southern</b>	bushel hamper	25	3½ - 4 = 1 qt.	
<b>Peas, Edible Pod</b>	peck	8 to 10		
	quart	1 to 1½		
<b>Peppers, Green Hot</b>	bushel	25 to 30 <sup>2</sup> / <sub>3</sub>	<sup>2</sup> / <sub>3</sub> lb. = pt. frozen	Green (often sold by count) large peppers, 80-85 per bu; small peppers, 110 per bu.
	cartons	16 to 25		
<b>Potatoes, Irish (mature)</b>	sack	100	1 bu. = 20 qt. canned	
	bushel	60		
	peck	15		
<b>Potatoes (new)</b>	No. 10 bag	10		
<b>Pumpkins</b>	pie pumpkin ea.	5 to 15	3 to 4 lb. = 1 qt. canned	sold by count
	Jack o'lantern ea.	15 to 40		
<b>Radishes</b>	carton of 30 6 oz. film bags	12		also sold in bunches of ½ to ¾ lb.
<b>Rhubarb</b>	bunch	2 to 2½	1 lb. cooked = ¾ cup	
<b>Rutabaga</b>	bushel basket	56	1 lb. = 2 <sup>2</sup> / <sub>3</sub> cups diced	usually sold by count
	peck	15		
<b>Squash, Summer</b>	bushel	40 to 44	1 bu. = 32 to 40 pt. frozen	zucchini, crookneck, Patty Pan, etc.
	8 qt. basket	10	2 to 4 lb. = 1 qt. canned	

PRODUCT	RETAIL VOLUME	NET WEIGHT* (LBS)	PROCESSED YIELD	COMMENTS
<b>Squash, Winter</b>	small ea.	1 to 4	3 lb. = 2 pt. frozen 2½ to 3 lb. = 1 qt. canned	usually sold by count and may be graded by size such as Acorn, Butternut, Buttercup such as Delicious, Golden Hubbard, Banana such as Blue Hubbard, Jumbo Banana
	intermediate ea.	6 to 12		
	large ea.	15 to 40		
<b>Sweet Potatoes</b>	bushel (cured)	50	2/3 lb. = 1 pt. frozen	
	peck	12 to 13	2 to 3 lb. = 1 qt. canned	
<b>Tomatoes</b>	bushel	53	2½ to 3½ lb. = 1 qt. canned	
	paperboard box	25	1 bu. = 15 to 20 qt. canned	
	8 qt. or peck basket	12 to 15		
<b>Turnips</b>	(without tops) mesh bag or bushel	50 to 56	1 lb. = 2 <sup>2</sup> / <sub>3</sub> cups diced	wash - tie 6-8 turnips per bunch - roots to be 2-3" in diameter
	peck	12 to 15		
	bunched with tops – sold by doz. in paperboard box	18 doz.		
<b>Watermelons</b>	paperboard box	4 melons	usually sold by count	

\*Net weight per container may vary slightly due to variation in product size. Net weight should not be less than the least stated weight listed.

### Volumes and Conversions

- **Bushel** = 2,150 cubic inches = 8 gal. (dry) = 32 qt. (dry) = 64 pt. (dry) = 4 pecks
- **Peck** = ¼ bushel = 8 qt. (dry) = 538 cubic inches
- **Lug** = shallow containers, usually wood, that vary in size
- **Gallon** = 4 qt. = 231 cubic inches
- **Kilo** (or kilogram) = 2.205 lb.
- **Liter** = 1.057 qt. (liquid)

### Acknowledgments and Selected References

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*Conversion Factors and Weights and Measures for Agricultural Commodities and Their Products*. Production and Marketing Administration, USDA, 96p.

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