

Weights and Processed Yields of Fruit and Vegetables in Retail Containers



Cooperative Extension Service

The University of Georgia College of Agricultural and Environmental Sciences

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) |
|------------------------------------|--|---|
| Bags | 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 |
| Baskets | Wood | ¼, ½ and 1 peck; ½ and 1 bushel |
| Boxes, Cartons and Hampers | Corrugated paper, often waded, or wood | from ½ peck to 1 bushel |
| Fruit and Vegetable Baskets | Corrugated paper with handles | 2 to 8 quarts |
| Fruit Tills or Cups | Pulp, cardboard, plastic, corrugated paper or wood | ½ pint to 4 quarts |
| Trays | 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 |
|---------------------|---------------|------------------|---|
| Apples | 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. |
| Blackberries | 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 |
|-------------------------------|---------------|------------------|---|
| Blueberries | 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. |
| Cherries | 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. |
| Grapes (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 | |
| Peaches | 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. |
| Pears | 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. |
| Plums | 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. |
| Raspberries | 6-qt. tray | 8 to 10 | 1 cup = ⅓ lb. |
| | 3-qt. tray | 4 | |
| | quart | 1¼ to 1½ | |
| | pint | ¾ | |
| Strawberries | 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 |
|-------------------------|--------------------|----------------------|---|---|
| Asparagus | 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 | |
| Beans, Lima | bushel | 30 | 1 bu. = 12 to 16 pt. frozen | |
| | peck | 8 to 9 | 3 to 5 lb. = 1 qt. canned | |
| Beans, Snap | 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 | |
| Beets | bushel, topped | 52 | 1 bu. = 35 to 42 pt. frozen | often sold in 2 lb. bunches with leaves |
| | | | 2 to 3½ lb. = 1 qt. canned | |
| Broccoli | 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 | |
| Brussels Sprouts | carton, loose pack | 25 | 1 qt. = 1½ pt. frozen | |
| | quart | 1½ | | |
| Cabbage | 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 | |

| PRODUCT | RETAIL VOLUME | NET WEIGHT* (LBS) | PROCESSED YIELD | COMMENTS |
|--|---|-------------------------|--|---|
| Carrots | 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 | |
| Cauliflower | 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 |
| Collards | 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. |
| Corn, Sweet | 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 | |
| Cucumbers | bushel peck | 48 to 50 12 to 13 | 1 bu. = 24 qt. of dill pickles | sometimes sold by count |
| Eggplants | bushel | 33 to 35 | | sometimes sold by count |
| Greens | bushel | 18 to 20 | 1 to 1½ lb. = 1 pt. frozen | mustard, spinach, & turnip often sold in 1 to 1½ lb. bunches or bag |
| Kale | bushel | 18 | 1 bu. = 6 to 9 qt. canned 12 to 18 pt. frozen | also sold in 1 to 1½ lb. bunches |
| Muskmelons | bushel | 48 | | usually sold by count; vary widely in size by variety, 3 to 6 lb. each |
| Okra | tall bushel hamper | 26 to 30 | 1 bu. = 17 qt. canned | |
| | 12 qt. basket | 15 to 18 | 34 to 40 pt. frozen | |
| Onions | dry, sack | 50 | | |
| | bunch, green - 48 bunches | 15 to 18 | | |
| Peas, English green (unshelled) | bushel | 28 to 30 | 1 bu. = 12 to 15 pt. frozen | |
| | peck | 7 to 8 | 3 to 6 lb. = 1 qt. canned | |
| Peas, Southern | bushel hamper | 25 | 3½ - 4 = 1 qt. | |
| Peas, Edible Pod | peck | 8 to 10 | | |
| | quart | 1 to 1½ | | |
| Peppers, Green Hot | bushel | 25 to 30 ^{2/3} | 2/3 lb. = pt. frozen | Green (often sold by count) large peppers, 80-85 per bu; small peppers, 110 per bu. |
| | cartons | 16 to 25 | | |
| Potatoes, Irish (mature) | sack | 100 | 1 bu. = 20 qt. canned | |
| | bushel | 60 | | |
| | peck | 15 | | |
| Potatoes (new) | No. 10 bag | 10 | | |
| Pumpkins | pie pumpkin ea. | 5 to 15 | 3 to 4 lb. = 1 qt. canned | sold by count |
| | Jack o'lantern ea. | 15 to 40 | | |
| Radishes | carton of 30 6 oz. film bags | 12 | | also sold in bunches of ½ to ¾ lb. |
| Rhubarb | bunch | 2 to 2½ | 1 lb. cooked = ¾ cup | |
| Rutabaga | bushel basket | 56 | 1 lb. = 2 ^{2/3} cups diced | usually sold by count |
| | peck | 15 | | |
| Squash, Summer | 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 |
|-----------------------|--|----------------------|--|--|
| Squash, Winter | 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 | | |
| Sweet Potatoes | bushel (cured) | 50 | 2/3 lb. = 1 pt. frozen | |
| | peck | 12 to 13 | 2 to 3 lb. = 1 qt. canned | |
| Tomatoes | 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 | | |
| Turnips | (without tops) mesh bag or bushel | 50 to 56 | 1 lb. = 2 ² / ₃ 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. | | |
| Watermelons | 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)

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