

Costing



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In planning any particular pork entrée, how much pork to buy becomes an important consideration. The objective is to order enough to satisfy demand with the absolute minimum left over.

General guidelines are helpful, but arriving at exact figures is easily confounded by the variables involved: weight, size, and shape of cuts, whether they are bone-in or boneless, fat cover, cooking loss, trimming, and holding time.

FOOD COST

Arriving at an accurate food cost is, at heart, a simple concept. Take the cost of the food, divide it by the price to the customer, express this as a percentage, and that's your food cost percentage.

Example: A dish of roast pork loin, with scalloped potatoes and buttered spinach costs, for the sake of argument, \$4.00
It sells on the menu at \$16;
 $\$4$ (cost of food on the plate) \div $\$16$ (selling price) $\times 100 = 25\%$ food cost.

$$\frac{\text{COST OF FOOD}}{\text{SELLING PRICE}} \times 100 = \text{FOOD COST PERCENTAGE}$$

This figure tells only part of the story. Labour costs need to be taken into account. Loss due to trimming and weight loss during cooking have to be looked at as well.

Most importantly, it doesn't tell you how to decide on a price-per-portion that will give you the desired food cost percentage.

PORTION COST

A pork loin purchased bone in, tail on, for eventual use as boneless steaks will need boning out and trimming. The smart operator will know how to decide how much useable product he can derive from the loin, and therefore the real cost per portion. He can also make an informed decision about choosing whether to buy cuts that need further trimming or to buy portion-cut items that require no further processing (and also less need for skilled labour and increased labour costs).



PORTION COST

Portion control or in-house processing of meat?

Purchasing portion-cut items will reduce labour costs, but will increase food cost. Deciding which way to go needs careful consideration.

FACTORS TO LOOK AT

1. The quality and consistency of portion controlled bought in comparison to items prepared in-house.
2. Labour cost and staff skill levels: do kitchen staff have the requisite butchering skills and how much extra does this cost in labour?
3. The value of trimmings: if these can be used, this value has to be taken into account.
4. Refrigerator space: portion-control items normally take up less valuable fridge space.
5. Equipment: Do I have the equipment needed to prepare items in-house?

HOW TO CALCULATE YIELD AND PORTION COSTS



$$\text{Yield percentage} = \frac{\text{Useable weight}}{\text{As-purchased weight}} \times 100$$

YIELD PERCENTAGE:

To arrive at the real cost, take the original weight and the weight after trimming and boning.

In this case, the loin weighed 5kg on delivery costing \$25, and 3.75kg after trimming and boning.
 $3.75\text{kg (useable weight)} \div 5\text{kg (as-purchased, or AP weight)} \times 100 = 75\%$ yield.

Portion Selling Price:

If you are aiming at a 35% food cost, and are selling two 100 g steaks:

$$\frac{\$1.08 (.54 \times 2) \times 100}{35} = \$3.08 \text{ selling price}$$

PORTION COST:

Now you can figure out exactly how many portions you can make from one loin of any weight:

For example, a 6.2kg loin will yield
 $6.2\text{kg} \times 75\% = 4.65\text{kg}$ useable weight.

If you are serving 100g steaks, divide the useable weight (in grams) by the serving size:
 $4650\text{g} \div 100 = 46$ 100g portions.

How much will each steak cost me?

The loin cost \$25, and this gave 46 portions, so, $\$25 \div 46 = \0.54 per steak.

Boneless pork loin is \$5.00 per pound. Yield is 75%. How much will it cost to put an 8 oz portion on the plate?

$$\text{Cost per serving} = \frac{\text{Market price}}{\text{Portions-per-pound}} \times \frac{100}{\text{yield}}$$

or:

$$\frac{\$5.00}{2} \times \frac{100}{75} = \$3.33 \text{ per portion}$$

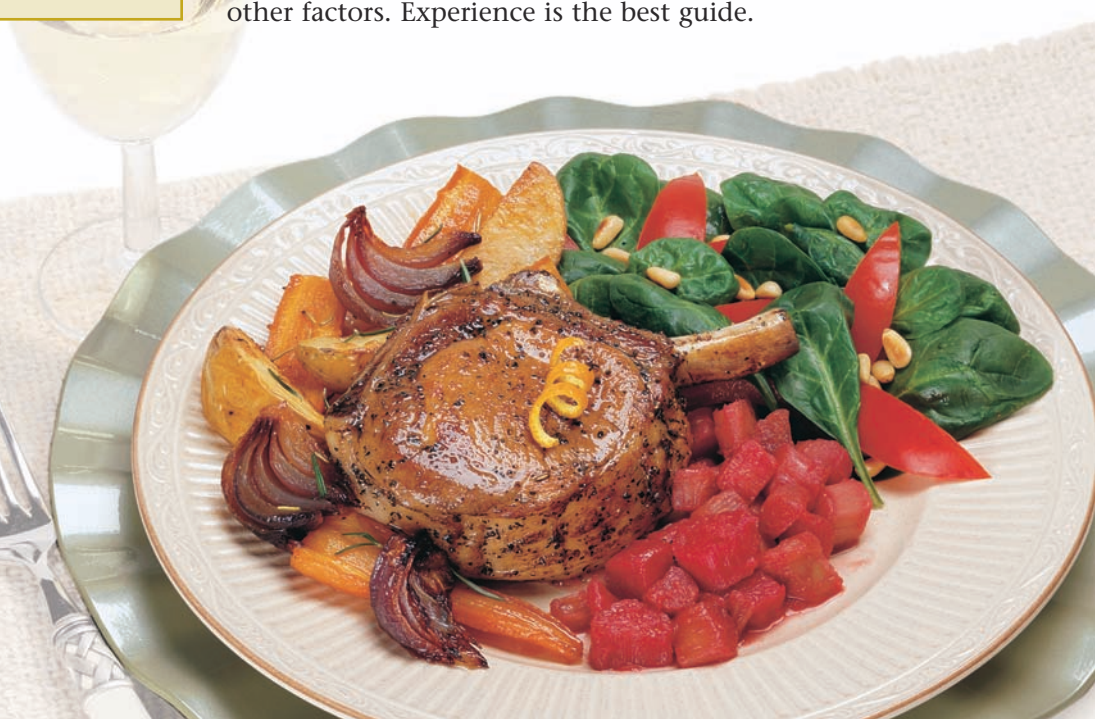
COST PER SERVING:

But you may want to know the cost of putting 5 oz of pork on the customer's plate, that is, the cooked portion. In this case the useable (uncooked) weight will be further reduced by the cooking process.

Using the same methods used to arrive at a yield percentage, calculate the final yield percentage after cooking. The weight of a particular item, trimmed, portioned and served, is the "as served" or AS weight. Cooking loss for any particular cut will vary according to cooking time and temperature, oven type, and other factors. Experience is the best guide.

BUT DON'T FORGET...

Examples here apply to the centre-plate ingredients only. Costings for sauces, vegetables, and garnishes need to be included.



Time is money

REDUCE PORTION COSTS. INCREASE PROFITABILITY. MAXIMIZE YIELDS.

Duplicate sets of roasts were cooked in conventional and convection ovens using two distinct roasting patterns for comparison.

TRADITIONAL

@ 400°F (204°C) to an internal temperature of 180°F (82°C).

HIGH YIELD

@ 250°F (121°C) to an internal temperature of 160°F (71°C).

Duplicate roast samples were also tested in an Alto-Shaam cook and hold unit, and a Rational steam cook combination oven for comparison. All samples roasted in these units were cooked to high yield specifications: @ 250°F (121°C) to an internal temperature of 160°F (71°C).

The shrink and yield percentage was calculated by comparing the cooked weight to the raw weight of each sample. The cooked values were calculated by comparing the raw cost per lb/kg to the cooked yield. All samples were weighed (out of packaging material) just prior to roasting in the test ovens. All raw samples were removed directly from refrigeration with the same relative internal temperature prior to roasting.

The food service industry revolves around quality, service, portion costs and thin profit margins. Food costs represent a substantial contribution of your input costs. Cooked yields or saleable weights of roasted meat are manageable variables that should not be overlooked. High heat roasting can have a very profound effect on your bottom line and may be costing more than you thought.

Roasting yield tests confirm that “lower and slower” roasting will result in higher cooked yields, lower shrink and juicier pork roasts that will impact your bottom line.

LOW AND SLOW MEANS HIGHER PROFIT POTENTIAL Principles of Dry Heat Roasting*

- a) Low-heat roasting tenderizes protein and connective tissue, and retains a higher percentage of natural juices.
- b) Low-heat roasting techniques provide higher cooked yields, lower portion costs and a superior finished product in terms of taste, appearance and handling performance.
- c) Products cooked to “medium or medium-well”, depending on consumer preference, can be achieved more efficiently using the low and slow method.
- d) High-heat roasting toughens and shrinks protein. Even cuts that are low in connective tissue and considered tender will shrink, toughen and dry out.
- e) High-heat roasting causes the outside of the roast to cook much faster than the inside core. This results in excessive moisture loss, uneven degrees of “doneness” and a tough outside crust.
- f) High-heat roasting results in finished products that have very poor holding and standing properties.
- g) High-heat searing of roasts prior to cooking does not seal in the juices. Meat is composed of an open network of fibres, whose permeability is in no way affected by searing.

* For detailed cooking time and yield information see charts in appendix 1, 2 and 3.

TIMES HAVE CHANGED

At one time, PORK was served only well done. This was to ensure the meat was safe to eat and to melt out the fat.

Today's Pork has changed.

FACT Today's Pork is lower in fat and cholesterol than ever before. This is due to improved breeding and feeding practices, a revised grading system which encourages the production of leaner meat, and better trimming of external fat by the meat packer.

FACT Trichinosis is virtually nonexistent in Canada due to improved production methods. In Canada, there has not been a case of trichinosis related to Pork in decades. According to Agriculture Canada, trichinosis is destroyed in any meat if cooked to an internal temperature of 137°F (58°C), well below the recommended 160°F (70°C) for a medium doneness.

FACT As a result of these positive changes and improvements, Today's Pork should be cooked to medium doneness. This will ensure the most profitable, tender and delicious Pork that your customers expect.

FACT Outdated commercial cooking methods that utilize the hotter/ faster philosophy with oven temperatures as high as 400°F (204°C) and internal meat temperatures as high as 180°F (82°C), will result in dried out, tough finished products with the lowest yield and the highest possible portion costs.

FACT *The message is medium.* Remember leaner Pork means higher yields. In an industry that revolves around portion costs and thin profit margins, Today's Pork Performs.

Important Factors to Remember When Roasting Today's Leaner Pork

TENDERNESS IS NOT THE ONLY GOAL OF ROASTING PORK:

1. Proper roasting will develop a superior flavour and a desirable appearance.
2. Roasting will produce pan drippings that can be used for flavourful stocks and sauces.
3. Low-heat roasting can prevent excessive shrinkage and nutrient loss that directly affect the quality of the finished product, its holding characteristics, and your profit potential.
4. Testing for doneness, placement of the meat thermometer or probe must be in the centre of the roast, not touching fat, bone or stuffing. Quick read thermometers offer an instant temperature reading.
5. All types of ovens — conventional, convection, cook/hold and steam cook combination units — have specific cooking instructions and characteristics.
6. Calibration of oven controls are not always accurate; temperatures should be regularly tested with thermometers placed inside the oven. The oven should also be tested for hot spots.
7. Size specifications of roasts vary — larger roasts cook and shrink differently than smaller roasts. Exterior fat covering and bone content can also affect cooking time and yield.
8. Shrink, yield and cooking time can be affected by the number and placement of roasts per oven. Roasts that are close or touching one another will restrict the circulation of air and heat, causing uneven roasting.
9. The Internal temperature of roasts will continue to rise 20-30 minutes after being removed from the oven. The internal temperature of a roast cooked at higher temperatures will rise higher than that of a roast cooked at lower temperatures. During this time, internal juices set and the roast will become easier to carve.
10. The "pull" temperature for Pork is 155°F (67°C) to 160°F (70°C). The final serving temperature will increase during the standing period.
11. Storage temperatures — raw pork should not be stored at temperatures higher than 40°F (4°C) in order to keep bacteria levels in the "safe" zone.

