Waste-Free Kitchen Handbook
A guide to eating well and saving money by wasting less food
Dana Gunder
They can. Sticking to your shopping list requires a shopping list from that plan, and stick to the plan. Let’s face it, though. The supermarket is ground zero for food waste. It’s where the real commitment to food is made, whether you end up eating it or not.

You might think you threw away that bag of salad greens because it went bad. But why did it go bad? Most likely, you didn’t do a good job of matching your shopping trip to the reality of your week. So as with other commitments in your life, when you’re buying (and thus committing) to food, choose wisely.

The basic advice is easy to say and much, much harder to practice: Plan your meals, make a shopping list from that plan, and stick to the list—and then stick to the plan. If you can honestly say you do all of that, by all means just skim this chapter. Let’s face it, though. Grocery stores are out to sell us as much food as they can. Sticking to your shopping list requires you to prevail over billions of dollars of research and manipulation geared to make you buy more.

You’ve heard it before: grocery stores strategically place items to entice you to buy more or higher-priced products, among many other tricks. And the thing is, it’s working. It’s also leading to a lot of waste. Some of their techniques lead to waste in the store, and some lead to waste at home—the result of buying too much.

In this chapter, we’ll unpack the supermarket’s bag of tricks and counter with techniques you can use to resist. Ironically, while on one hand stores are engineering our purchases, we as consumers also influence store behavior. The grocery business is ferociously competitive. More than anything, stores want us to walk through their doors, and they are willing to go to great lengths to ensure our satisfaction. Enabling the customer to always be right and accommodating our every expectation is actually leading to quite a bit of waste as well.

For instance, in his book American Wasteland, Jonathan Bloom describes his conversation with a grocery store about its rotisserie chickens. They estimated that over the course of a day, about half of their chickens are thrown out, many from the last batch of the night, since they don’t want to disappoint that late-evening customer who wants to buy a chicken right before closing time. If customers came to expect that the store might run out of rotisserie chickens at the end of the evening, waste from that last batch might be avoided.

In addition to helping us perfectly match our shopping to our eating, this chapter will also highlight opportunities for us to help stores, and even the farms that supply them, waste less in their own operations. It’s in our interest to help, since the cost of food that goes to waste in the store is ultimately built into the prices we pay.

**Tricks of the Grocery Trade**

The science of selling more boggles my mind. The latest research methods literally include placing electrodes on a person’s scalp while they’re shopping to gain a high-density electroencephalogram (EEG) of their brains’ activity, tracking their eyes to determine how what they look at correlates to what they think, and then determining how this translates into purchasing (or as they call it, “activation”). Of course, researchers augment this data with the usual survey and observation techniques. These days, however, persuasion is no longer an art; it is a very precise, well-researched science.

And that science is working. During the average shopping trip, 55 percent of purchases—more than half—are unplanned.

I know these unplanned purchases first-hand. I run to the store for eggs and leave with a fresh baguette (it smelled so good), some fancy cheese (it was on sale and goes with the baguette), frozen yogurt (there was a new flavor to try), and a few cans of diced tomatoes (while I was there).

Though it seems spontaneous to me while I’m at the store, it’s all part of the plan. That industry research has translated into precision design of each part of a grocery store, with the ultimate goal of raising our checkout total. For instance, the music in a grocery store tends to have a slower rhythm than the average heartbeat, encouraging you to relax and spend more time there (and increasing your bill by an estimated 29 percent).

Today’s shopping carts are larger because larger carts encourage you to purchase more—40 percent more when cart size was doubled, according to one study. Flowers are placed at the entrance to lift your mood and create a sense of “freshness.” Produce-section flooring is being converted to wood because it creates a sense of warmth. And promotions are advertised aisles away from the actual product being promoted to encourage more traffic through the store. Specialized lighting, manipulated scents—the list goes on and on.

That’s just the in-store experience. A whole swath of techniques is being employed in other venues as well. From Ronald McDonald to Tony the Tiger, marketing to children is notoriously ubiquitous. More subtle techniques include seeding the placement of products in magazine recipes and television shows.

Don’t despair! Ironically, we can actually use some of the food industry’s research to teach us lessons about how to trick ourselves into buying less. If using a large shopping cart leads you to purchase more, how about shopping without a cart? If using credit cards encourages a higher average total at the checkout, why not pay with...
FOUR BRIGHT IDEAS

1. Keep healthful snacks in plain view on the top shelf to encourage good eating habits.
2. Put meat, poultry, and fish on trays, so their fluids don’t drip into drawers below.
3. Arrange the contents so that you can see everything. That way you won’t open a new jar of salsa when there’s one already lurking in the back.
4. Use an “Eat Me First” sign to indicate what needs to be used up.

Meal Planning

Grosery shopping without a plan is a bit like going somewhere new without directions. If you’re lucky, you might go straight to your destination, but it’s much more likely that you’ll take a few unintended side trips along the way.

I’m a terrible planner, and I’m not just talking about meals. Budgeting, scheduling social activities, following work project plans are not my strengths. So the idea that I’m going to plan out what to eat for the week before I even go to the store, and then actually stick to that plan, is a challenge for me. Unfortunately, there’s no getting around the fact that some level of planning helps reduce waste, and if you skip the planning step you’re guaranteed to end up with shriveled vegetables at some point.

Besides saving on wasted food, meal planning saves time, stress, and money and typically means healthier eating. Industry research shows that the one quarter of Americans who use written shopping lists and execute according to plan also make fewer impulse buys, have the lowest grocery bills, and make the fewest number of weekly trips to the store. Add to that the fact that planning meals encourages a more well-rounded, nutritious diet and it’s clear that planning has benefits that go far beyond reducing waste.

TEN KEY ELEMENTS OF MEAL PLANNING

While it may be obvious that meal planning involves choosing meals to eat for the week and creating a shopping list for those meals, a handful of not-so-obvious tips can make the process more effective.

Check the refrigerator. Your refrigerator is the starting gate for planning the next week’s meals. What needs using up? What’s a good meal to make with the other half of that broccoli, the last of the cottage cheese, and the leftover pasta from two days ago? Sounds like a baked pasta dish might do the trick, and you’ll need to buy some pasta sauce and mozzarella to make that work. Add those to the shopping list (after you’ve checked to be sure you don’t have them in the pantry) and voilà. Meal one. Check.

Choose building blocks. Pick two types of protein, one or two grains, and a vegetable medley that you can make at the beginning of the week and then incorporate into different meals. For instance, a sauté of broccoli and peppers can be used as a side one night, spooned on enchiladas another night, and then worked into a soup or meatloaf later in the week. Brown rice or mashed potatoes could be incorporated into each of those meals as well. With different spices and sauces, it won’t feel as though you’re eating the same thing every night.

Think double duty. If you’re planning for Tuesday taco night, what else could you use tortillas for? Maybe some Asian salad wraps later in the week, or those enchiladas? How about the cilantro? Unfortunately, the ingredients we need don’t always come in the portions we need them in. Incorporating those ingredients into multiple meals will help you avoid the end-of-the-week overload. After you choose one meal, consider which ingredients come in large quantities, and plan the second meal around those.

Go fresh first. For optimal nutrition and freshness, use perishable like fresh seafood and meat earlier in the week and make staples (pasta, dairy, omelets) later in the week. Some greens, such as kale and chard, will maintain their freshness longer than others.

Cook batches and freeze. Soups, stews, casseroles, lasagna—can all be made in large batches, frozen, and defrosted when you’re in need of a quick dinner on one of those lazy nights. Having these around saves you from having to plan every meal for the week. See the tips on freezing on page TK, and be sure to freeze in the amounts you’d want to defrost.

Schedule in a lazy night. Or two or three. So often we go to the store with hopes and dreams of preparing fresh meals all week, but the reality is we don’t have the time or energy to cook every night. So planning on lazy nights that don’t involve cooking is key—whether you order in or make an already prepared meal to make with the other half of that broccoli, a soup or meatloaf later in the week. Brown rice or mashed potatoes could be incorporated into each of those meals as well. With different spices and sauces, it won’t feel as though you’re eating the same thing every night.

Lean on frozen ingredients. I always keep a bunch of frozen vegetables on hand. They fill in the gaps, allowing me to buy only a handful of fresh vegetables that I know I will use each week, and helping me avoid going shopping late in the week if I’ve run out. From a health perspective, frozen foods have nearly all of the nutrients, and sometimes even more, than fresh. (See TK box below)

Use portion planners. Use a portion calculator to figure out how much pasta or chicken or vegetables to make for your group size. Portion calculators are particularly helpful when you’re feeding a bigger group but might also add some insight as to why you always wind up with extra rice. There are many on the Web to choose from; page TK has some basic portion suggestions to get you started.

Have kitchen essentials on hand. Having two to three grains, cooking fundamentals, some key spices, and “hero” sauces that come to the rescue can bring new life to old meals and save you on a lazy night. A list of recommended essentials can be found on page TK.

Don’t start from scratch. No one is scoring you on your creativity. Meal planning does not mean hours with cookbooks every week. You likely already have a few meals that are regulars in your household. Count those in. Repeat them every week or two. Then, if you’re up for it, try something new once in a while. Then, if you’re up for it, try something new once in a

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Crisper drawers serve two functions. First, they create a different humidity zone than the rest of the refrigerator. Second, they allow different treatment of those products that could benefit from more airflow.

The best thing to do is to create a high-humidity drawer and a low-humidity drawer. If the drawers have levers, set one to high (closed, less air coming in) and one to low (open, more air coming in, lower humidity). If there are no levers, just crack one drawer open the tiniest bit, and that will be your low-humidity drawer.

Put fruits in the low-humidity drawer, along with vegetables that rot easily. Many fruits give off a gas called ethylene when they ripen, which speeds up the ripening of any fruit next to it. That’s fine if you’re trying to ripen fruit (think peaches in a paper bag), but to make already-ripe fruit last, you’ll want the opposite effect. Storing fruits in low-humidity drawer will allow more gas to escape.

Put most vegetables, particularly those likely to wilt, in the high-humidity drawer. The water in vegetables gives them their structure. When they dry out, they shrivel and droop, but with high humidity, they’ll stay perky longer.

The cheese drawer is really designed to give your cheese a place to live without absorbing flavors from other food in the refrigerator, which cheese has a tendency to do.

The refrigerator door is the warmest part of the refrigerator, getting a nice dose of room-temperature air every time the door is opened. It’s a good place for condiments. It is not a good place for anything that is even moderately perishable. Though some models may have a compartment for eggs in the door, it’s better to keep them on one of the main shelves.

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For the Slightly Audacious: Canning, Pickling, and Drying

For those wanting to put a bit more time and energy into storing food, traditional kitchen wisdom has a lot to offer. It may seem like the domain of country grandmothers, but canning and pickling are making a comeback. In fact, sales of home canning supplies rose by 3 percent in 2012 alone, and by 35 percent from 2008 to 2011 before that.

And for good reason. Preserving foods yourself is one of the best ways to stock your pantry with quality, wholesome products. Most of these techniques truly require only a bit more time and energy (AU: than what? than freezing?) and reap great rewards. First of all, there is the pure excitement of having successfully pickled or canned something. Secondly, there’s getting to eat the food later and not letting it spoil. These techniques are often used by gardeners who find themselves with a glut of a particular crop. Others like to take advantage of peak season and low prices at the farmers’ markets or grocery store. In truth, however, you don’t need all that much food to make some of these techniques worth your time. They can all be employed with quantities as small as a pint jar or single tray.

Home-canned products can make for thoughtful, inexpensive gifts. They accommodate special diets, such as low sodium or low sugar, when such products can be hard to find commercially.

Entire books have been written on food preservation techniques. Be sure to do a bit more research first if you plan to try them out, as some of the steps are quite important to the food’s safety. An understanding of safe canning has evolved over the years, so while it may be tempting to use your great aunt’s recipe, be sure to read up on more current canning procedures as well. In fact, the National Center for Home Food Preservation offers an online course that will give you all the basics you need to know.

Here I’ve just tried to whet your appetite. Pickled green tomatoes, anyone?

CANNING I can almost guarantee that the first time you can or pickle something, you will say to yourself, “I can’t believe how easy that was!” I am by no means an avid food preserver, and I say that to myself pretty much every time I try it. A good way to break the ice is to find a few like-minded friends and make an evening of it.

Canning essentially involves cooking something, putting it in a jar, and then boiling the jar. There’s really not much more to it than that. You do need to sterilize the jars and boil the lids beforehand.

You can cook foods to be canned in water, juice, syrup, or their own liquids, depending on the particular food. Sometimes you don’t even need to cook it, but can just “raw pack” it into jars and then fill the jar with sugar syrup, juice, or vinegar brine. This works for berries, cherries, peaches, and anything getting pickled (discussed next).

Canning vegetables and meat, which are less acidic, involves a somewhat more daunting process of pressure-canning. I recommend starting with fruits or tomatoes that can be canned using the “boiling water bath” method.

Although there are a few pieces of specific equipment that make canning easier, you can get started with nothing more than a large pot and some canning jars, which you can purchase at your local hardware store, if not the supermarket. Of all the equipment, I find the jar lifter—special tongs that are designed for lifting jars—to be the one utensil that might be worth purchasing from the start. If you’re hooked after you’ve tried it, you can then progress to more fancy equipment such as special canning pots with racks, slicers,
**BURIED AVOCADO CHOCOLATE MOUSSE**

This brilliant dessert substitutes all the smooth creaminess of an avocado for the less healthful ingredients that are typically in chocolate mousse. And you won’t even notice. It’s delightfully smooth, and the chocolate easily covers up the flavor of a slightly overripe avocado. Go wild with the toppings and you’ll have a sundae even your gym trainer would be proud of. If you don’t have any milk on hand, don’t worry; the mousse will be just fine without it. But if do you have some available, add it for a looser, smoother mousse.

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<th>Makes 4 servings</th>
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**Uses up:** Avocados, fruit

- 2 large ripe or slightly overripe avocados (see Note)
- ¼ cup/60 ml milk, milk substitute, or yogurt (optional; see Note)
- ½ cup/60 ml agave nectar, maple syrup, honey, or superfine sugar, plus more to taste
- 5 Tbsp unsweetened cocoa powder, plus more to taste
- 1 ½ tsp vanilla extract
- ⅛ tsp salt

**Optional Toppings**
- Raspberries, blueberries, sliced strawberries
- Sliced banana
- Shredded coconut, toasted
- Candied citrus peel
- Chopped nuts
- Whipped cream (the mousse is so healthful, you can splurge here if you want)

Scoop the avocado flesh into a food processor. Add the milk (if using), sweetener, cocoa powder, vanilla, and salt and process until free of lumps and velvety in texture. Taste and add more sweetener if it’s not sweet enough for you; or add more cocoa (just 1 tsp at a time) if you want a darker chocolate flavor. (Alternatively, if making by hand, mash the avocados with a fork first, then mash in the remaining ingredients.)

Serve plain or with one of the optional toppings. The mousse will keep for at least a week in the [in an airtight container?] refrigerator, but honestly it’s so delicious that the chances of it lasting that long are slim.

**Note:** If you have small avocados, blend them with 5 Tbsp sweetener, 3 Tbsp cocoa, 1 tsp vanilla extract, and a small pinch of salt. Taste, then add small amounts of cocoa and/or sweetener until you hit a balance of sweet to chocolate that you like.

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**HERBED BUTTER**

So often we buy herbs for a recipe that calls for only a few tablespoons and then watch the rest of the bunch go to mush. This is a chef’s trick for transforming that surplus cilantro, rosemary, thyme, or tarragon into a gourmet condiment. You can spread herbed butter on bread, fold a spoonful into a bowl of pasta, or melt a dollop on top of grilled meat. It’s impossible to go wrong with this one. If you have a lot of herbs, double or triple the recipe and scope the herb butter into an ice cube tray. When frozen, pop the cubes out of the tray and transfer to a zip-top freezer bag to store. Label the bag so you remember what herbs you used.

| Makes about 5 Tbsp |

**Uses up:** Fresh herbs

- 4 Tbsp butter, at room temperature
- 2 to 3 Tbsp finely chopped fresh herbs (use the smaller amount for pungent herbs such as rosemary or oregano and the larger amount for soft, leafy herbs such as basil or dill.
- Salt (optional)

In a small bowl, combine the butter and herbs. If using unsalted butter, season with a little salt. Mash until evenly blended. [store in refrigerator, tightly wrapped, or freeze for up to ____.]
FRUITS

Apples

**REFRIGERATOR:** Yes

**LIFE AT BEST QUALITY:** Up to 6 weeks in refriger-ator; 1 to 5 months if stored at 30° to 32°F, depend-ing on variety

**OPTIMAL STORAGE:** Do not wash until ready to use. Store in breathable bag in low-humidity drawer of refrigerator. Handle carefully to prevent bruising, and separate any with bruises from other apples (or they will cause others to bruise). Apples ripen 6 to 10 times faster at room temperature.

For large quantities, store in a cardboard box covered with a damp towel in a root cellar or other cool place. Ideally, you would wrap each apple individually in newspaper to reduce their influence on each other. Many heirloom varieties are not suited for long-term storage, so try to eat them right away. Ideal storage temperature is 30° to 32°F.

**FREEZING:** Can be frozen raw or cooked, with or without sugar. Raw: Wash, peel (if desired), core, and slice. To prevent browning, either Blanch for 1 1/2 to 2 minutes or sprinkle with ascorbic acid solution or lemon juice. Then choose between (1) packing dry with 1/2 cup/XX g sugar per 1-qt/XX g of apples; (2) packing in 40 percent syrup (see chart on page TK); or (3) placing directly on a baking sheet and freezing, then transferring to airtight container. Cooked: Cook, cool, and pack in airtight container.

**USE IT UP/REVIVAL:** To prevent apple slices from browning, toss them with one part citrus juice and three parts water. Mealy or wrinkled: Cook! Even shriveled apples can be cooked into applesauce, apple pies, apple crisps, etc. A few bruises are fine and can be cut out; if the whole fruit is soft or mushy, however, discard. Use apple peels to make a tea, flavor fresh water, make a jelly or syrup, in smoothies, etc.

**SOURCES:**
- www.newenglandapples.org/index.php?id=72
- www.usapple.org/index.php?option=com_content&view=article&id=51&Itemid=82
- hort.purdue.edu/ext/ho-95.pdf

Avocados

**REFRIGERATOR:** After ripe

**LIFE AT BEST QUALITY:** Whole, after ripe, 2 to 5 days in refrigerator

**OPTIMAL STORAGE:** Store on counter until ripe, then refrigerate loose. Place in closed paper bag to accelerate ripening (adding an apple or banana will make it ripen even faster). Do not refrigerate before ripe, or it will never ripen.

Store avocado-based products such as guacamole with plastic wrap pressed all the way into the food to avoid browning.

**FREEZING:** Peel, purée, mix in 1 Tbsp lemon juice per avocado, and pack into airtight container, leaving 1/2 in/12 mm at the top for expansion.

**USE IT UP/REVIVAL:** If you find that an avocado is not ripe enough after you’ve cut it open, sprinkle the surface with lemon or lime juice, close it back up around the pit, wrap tightly, and place in refrigerator. Check periodically to see if it has ripened enough to eat.

To prevent browning once cut, close the avocado back up around the pit or sprinkle with lemon or lime juice and place in airtight container in refrigerator.

If your avocado or guacamole has turned brown, skim off the brown (oxidized) parts. Parts that are green are still edible.

**SOURCES:**
- Williams-Sonoma
- http://crafting.squidoo.com/avocado-seed
- http://www.californiaavocado.com
- http://www.avocadocentral.com/how-to/how-to-store-how-to-ripen-avocados

Bananas

**REFRIGERATOR:** Optional

**LIFE AT BEST QUALITY:** Less ripe, 5 to 7 days; ripe, 1 to 2 days

**OPTIMAL STORAGE:** Store on counter at room temperature, away from other fruit (unless you’re trying to ripen those fruit). You can slow down the banana ripening process by storing them in the refrigerator. The skin may darken, but the banana will be just right for several days.

**FREEZING:** Bananas can be frozen with or without the peel, but the peel can be difficult to remove when frozen. For smoothies, peel and store in airtight container. If leaving the peel on, place loose in freezer and, when ready to use, cut off both ends and slide a knife under the peel to loosen.

**USE IT UP/REVIVAL:** Browning or dotted bananas are perfectly fine to eat. Bruised parts of bananas may be easily cut away or used. Very brown or nearly black bananas and frozen bananas are great for baking quick breads, muffins, or cakes.

**SOURCES:**
- http://www.dole.com/bananas/

Berries (strawberries, raspberries, blueberries, blackberries)

**REFRIGERATOR:** Yes

Life at Best Quality: Raspberries, blackberries, and strawberries, 2 to 3 days; blueberries, 10 days

**OPTIMAL STORAGE:** Do not wash until ready to use.

Raspberries, blackberries, and strawberries: Store on shelf in refrigerator in a single layer in

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