



Packaging, Labeling, & Branding Products

A resource guide for food entrepreneurs.

Agriculture Innovation Center





Packaging and Labeling

The way you package and label your product is important. First, packaging protects it from physical, chemical and microbiological invasion.

The package also provides a medium for presenting advertising messages and other important information to the consumer.

And finally, the package is one of the greatest influences on a consumer's decision to try your product.

The Ideal Food Package

The perfect food package has all of the following criteria:

- meets current legal requirements;
- compatible with food;
- protects against contamination from the environment;
- controls the product's environment;
- resists mechanical damage;
- sanitary;
- tamper-proof;
- attractive;
- convenient;
- inexpensive;
- lightweight;
- environmentally sound;
- functions as a preparation and/or serving vessel;
- sells itself;
- identifies the product; and
- supplies the required information.

It's important to note, however, that not one food package available today meets all of these criteria. It's up to you to decide which are most important for your particular application and which can be compromised.

Regulatory Considerations

Regulatory issues around packaging are very complex, and you must consider them in detail with respect to each food product's unique needs and the properties of its potential package. The following is a brief summary of some of the regulatory issues you will want to investigate more closely as you examine your packaging options.

Packaging Materials

With some types of products, the design process involves detailed regulatory requirements for the package. For example, any package components that may contact the food are food contact materials. Toxicologists and food scientists need to verify that the packaging materials are allowed by applicable regulations. Packaging engineers need to verify that the completed package will keep the product safe for its intended shelf life with normal usage. Packaging processes, labeling, distribution, and sale need to be validated to comply with regulations and have the well being of the consumer in mind.

Standardized Sizes

Before you commit to packaging, you would be wise to determine if the products meet standardized size requirements. If they do, they can only be sold in the units-weight or volumeas prescribed in applicable regulations.





Your choice of packaging materials may have an effect on whether the product meets standards of identity or standard container sizes.

Sourcing Food Packaging

Before you begin contacting food packaging suppliers, you should have a good idea of the type of packaging you need, as well as the dimensions and volumes required. Like food ingredient suppliers, packaging suppliers deal only with those customers that can fulfill a certain volume order.

Because of this, you may find it easier to source your materials through food packaging distributors. You could encounter a problem, however: these distributors usually carry only standard types of packaging. For generic packages, look in the Yellow Pages for distributors near you.

For more information, contact:

Paperboard Packaging Council

1350 Main Street, Suite 1508 Springfield, MA 01103-1628 Phone: 413.686.9191 http://www.ppcnet.org

WS Packaging Group, Inc. 2571 S. Hemlock Road Green Bay, WI 54229 https://www.wspackaging.com/

Packaging Materials

You can choose from a number of packaging materials. Each has its advantages and disadvantages.

Metals

Metals provide excellent protection to foods, because no moisture or gas transmission can take place. Metals are:

- inexpensive;
- non-toxic;
- strong; and
- coated or plated so that they won't react with the food.

Cans are the primary type of food packaging produced from metals. They allow you to cook the food inside the sealed can.

The main metals used to make cans are steel and aluminum. Steel can't be placed in direct contact with food or it will rust. As a result, steel must be coated with tin, chromium or various polymers for acidic foods.

Aluminum, on the other hand, won't corrode when it's exposed to food. However, it is sensitive to chloride ions and acid in foods.

Can Sizes

Metal cans come in a large variety of sizes, ranging in both height and diameter. Two sets of numbers are given, the first set being the diameter and the second being the height. Within the set, the first number is stated in inches and the second is stated as 16ths of an inch.

Can Types

You can purchase either three-piece or twopiece cans. Because two-piece cans have only one seam, they are superior with respect to integrity and appearance. Unfortunately, they are



more expensive, and only small sizes are available.

One of the main benefits of using glass over other types of food packaging is that it is nonreactive with virtually all foods. As well, it contains the product totally, because it is impervious to moisture and gases.

perspective-because it is transparent, the consumer can see the contents.

Not only is glass recyclable, but it is also often re-used by some food processors.

The drawback of glass as a food packaging material is that it is extremely fragile and very heavy, which adds to distribution costs.

The standard glass for food packaging is sodalime glass. It can be formed into unique shapes and sizes. It can also be colored for an attractive appearance or to screen out light that could cause unwanted changes in the product.

Paper

Food packages made from paper can be formed into simple or elaborate designs, because it is flexible and easy to work with. Other benefits to using paper include:

- light weight;
- generally inexpensive; and
- excellent surface for printing.

Because paper isn't waterproof, its structural integrity is limited. That is, when paper gets wet, it becomes weaker. As a result, paper is restricted to certain applications when used alone. To overcome this problem, paper is often coated with polymers or lined with foils.

Types of paper packaging include:



Glass

Like metal, glass allows you to cook the food inside the container. It is also good from a marketing

- bags and pouches;
- folding cartons; and
- corrugated boxes.

Plastic

Plastics are ideal for food packaging because they are:

- resistant to breakage;
- relatively inexpensive;
- corrosion resistant;
- lightweight; and
- waterproof.

Plastics can be produced easily in complex shapes, and they also possess a wide range of colors, or remain transparent.

Although plastics have come a long way since their introduction into the food industry, there still remain some drawbacks to using them for food packaging. For example:

- they can bend, crush or crack easily;
- some possess little heat resistance;
 - they pick up dust easily; and
- some of the more complex laminates can be very expensive.

Plastics also don't have the excellent barrier properties of glass and metals, so they allow gases to pass in and out of the package. Plastics differ in how effective they are as barriers to the various important gases-oxygen, carbon dioxide and water vapor. Selecting the right plastic packaging requires knowledge of how sensitive





the product is to loss or absorption of these gases.

Types of Plastic

Plastics are often classified into two categories - thermoplastics and thermoset plastics.

- Thermoplastics: These can be re-formed into a desired shape after being melted. This type of plastic is used to produce plastic bags, pouches, bottles, trays and cups.
- Thermoset plastics: A thermoset plastic is very strong once formed, and will decompose before melting (that is, it won't re-form). This type of plastic is commonly used for bottle caps and can coatings.

Environmental Concerns

In general, food packaging has a bad reputation with consumers. They see it taking up space in landfill sites and hear how it is using up valuable resources. It's not that they believe packaging isn't necessary, but rather they view it as excessive and over abundant.

As a result, you must choose the packaging for your products carefully. When you're sourcing, take into consideration packages that are smaller, thinner and use less material. By doing this initially, you can save yourself some time and money searching for a new package farther down the road.

Laminates

Laminates combine the advantages of several materials into one. For example, one film may consist of paper, metal (foil) and plastic. In this case, paper is used for its low cost and strength, metal is added to prevent gas and/or light penetration, and a low-cost plastic is incorporated so the film can be heat-sealed.

Laminates can often be more costly than other packaging alternatives, such as metal cans or plastics.

Examples of laminates are Tetra Brik® drink boxes, potato chip bags, retort pouches and "ovenable" paperboard (paperboard that can be heated up to 400 F).

Package Design

Your packaging must look professional in order to compete, particularly in the food business. It is the packaging that will determine a first purchase, while the quality of your product will bring repeat business.

The first and most important step you must take in designing your package is to establish the product requirements for:

- the appropriate amounts in which you will sell the product (these may be based on adequate portion sizes, competitors' offerings or customer preferences);
- volume and weights of the different sales amounts;
- physical packaging attributes that help the customer use the product;
- protective needs, including shipping and handling factors;



• the appropriate shape of the packaging, not only for esthetic appeal but also for efficient shipping and stocking; and legal requirements.

Once you have determined the required specifications, the design of the packaging can be created to work within these boundaries.

Packaging design is part of your overall marketing strategy. You can either do the design yourself or hire a professional graphic designer. Professional help from printers will be necessary in order to create a package that has impact in the market. However, it is important that you are able to give the designer specific directions, because he or she won't be as knowledgeable about the target market as you are.

The more information you can give to the designer about your target market, package structure and desired image the easier it will be for him or her to create what you are looking for. You can get information about packaging design from trade magazines, trade shows, competing products and books on labeling.

Here is a site to really get you thinking creatively about package and label design: The Dieline http://www.thedieline.com/blog

You can also contact:

Paperboard Packaging Council

1350 Main Street, Suite 1508 Springfield, MA 01103-1628 Phone: 413.686.9191 http://www.ppcnet.org

Food & Beverage Packaging http://www.foodandbeveragepackaging.com/

Companies who offer package design:

http://www.wisconsinpackaging.com/



www.wspackaging.com http://www.trinovadesign.com/index.asp

Packaging Magazines:

http://www.packagingdigest.com/ http://www.packworld.com/ http://www.brandpackaging.com/ http://www.packagedesignmag.com/

Factors to Consider Regarding Design

Here are some of the considerations you should take into account when you are developing your product design:

- Determine the target market.
- Establish the image or "personality" of the product based on the tastes and preferences of your target market: bold, elegant, practical, sophisticated, fun, etc.
- Determine the most important features of your product to the audience (if too much information is presented, the design will be cluttered).
- Determine where you will be selling the product and the associated distributor's regulatory requirements for the package, including labeling.
- Determine the placement of the product in relation to other products, particularly competitors (your package must stand out against its background).
- Colors convey meaning, and the meaning will be different in each cultural setting
- Colors don't usually appear to be as bright or bold when the product is on the shelf. Be careful that color "rules" used in other situations aren't being applied to the package design.
- Symbols and shapes can often convey information more concisely than text.



Labeling

High quality labeling, like packaging, requires research, planning and consultation from a variety of sources. As well, package and label design must be integrated. It's important that they both send the same message to the consumer.

Your ultimate goal is to produce a label that is educational and user-friendly. It should also adequately market your product within legal specifications. And, of course, your label needs to be an integrated part of your strategic marketing approach.

Before you create a label, you should know:

- all the regions where your product will eventually be sold, and through which distribution channels;
- information your customers would find helpful;
- the colors and promotional appeals that are suitable for your audience (your designer can give you input on this);
- how the label will be applied;
- what labeling material is suitable for the product environment (that is, does it need to be freezer-proof? Shipping-proof? Smudge-proof?);
- what the labeling budget is per unit; and
- regulatory requirements for the product.

Once you have enough information to answer the above questions, you can approach a label designer.

Note that it is the manufacturer or distributor's responsibility to ensure that the label meets legal standards. In the United States, a unique set of specifications is required for each product, based on a combination of factors, including:



- product class;
- distribution channel; and
- intended consumer.

For information about mandatory and optional labeling elements for products being sold in the United States, contact:

Information on the National Organic Program and Certification <u>http://www.ams.usda.gov/AMSv1.0/nop</u>

The Electronic Code of Federal Regulations for Organic Certification

http://ecfr.gpoaccess.gov/cgi/t/text/textidx?type=simple;c=ecfr;cc=ecfr;sid=53149cdb8 8f986b9cd8ba77495da44bc;region=DIV1;q1=na tional%20organic%20program;rgn=div5;view=t ext;idno=7;node=7%3A3.1.1.9.31

FDA Food Labeling Guidelines

http://www.fda.gov/food/labelingnutrition/defau lt.htm

The Electronic Code of Federal Regulations for Labeling Guidelines

http://ecfr.gpoaccess.gov/cgi/t/text/textidx?type=simple&c=ecfr&cc=ecfr&sid=ce29e8 1b1f51bd8945331631948e406d&idno=®ion =DIV1&q1=food+label+&rgn=Section

Measuring Up: Packaging Practices for Dairy Products

http://www.ftc.gov/bcp/edu/pubs/business/mark eting/bus22.shtm

USDA Labeling Procedures

http://www.fsis.usda.gov/Regulations_&_Polici es/Labeling_Procedures/index.asp

Wisconsin State Requirements

http://datcp.state.wi.us/fs/business/food/labeling/ index.jsp

• geographic region;





Labeling Design

Your options are wide open when designing full color custom packaging label design. Full color, CMYK label printing allows you to create stunning packaging label designs that include high resolution color photos and complex color graphics. Create your design based on popular and functional die-cut, pre-sized label shapes and sizes that fit almost any packaging application. If a standard size won't work with your design needs, most label printing companies can make special dies specific to your design requirements.

Great packaging label design includes these design considerations: selecting a standard packaging label size that fits your design requirements and incorporating full color graphics to support brand requirements and give your packaging the most eye catching look possible.

You can save time and money if you begin the design process by choosing to work with a standard label size. You will establish your design parameters early on based on a label size that will benefit you with the most competitive cost pricing and the fastest turnaround when ordering. We also suggest that you prepare your graphics to make the most of full color packaging label printing. To do so, be sure your line art graphics are vector based and that your photos are high resolution and scaled at the size you intend to print. Note, too, that labels being applied to see-through packaging can be printed on both sides of the packaging label. Once you know your packaging label size and have your graphics ready, you're ready to let the creative juices flow.

Contact the printer who you have chosen to handle your labels at the very beginning. They will be able to provide templates, aid in the regulation side of things, and offer any other advice you might be seeking.

Labeling Shapes and Sizes

To determine the best size for your project, use the guideline provided below.

- Measure the area that your packaging label must cover.
- Find a standard label size that is closest to, but smaller than, the area to be covered.

Using the sizing guidelines above, you should be able to begin your actual design work on the exact label size and shape you will use for printing. By choosing a standard size, you will be able to manage printing costs and turnaround time to your benefit. You can opt for a nonstandard packaging label size. We strongly suggest that you do this only if a suitable standard size can't be found. A non standard label printing die will increase your order price and your order turnaround time.

Labeling Print Materials

The guide below can help you determine the best material for most custom Packaging label projects:

Custom Packaging Label Material Considerations

- For Extreme Heat or Cold Applications, Consider Permanent Adhesive with Laminate
- For Long Term UV or Direct Sunshine Exposure, Consider Paper Material with UV Varnish
- For Labels That Will Be Re-Positioned or Re-Applied, Consider Removable Adhesive





• For Labels That Will Be Applied To Plastics, Consider Permanent Adhesive

We suggest adding a laminate or UV varnish to protect your packaging labels from abrasion, damaging heat, cold, and UV light sources. Laminates and varnishes can add gloss sheen to your labels. Ask for samples when talking with a printer if you are curious about laminating your labels. Laminates are not required.

You can also reference the below link for helpful information in selecting the proper materials and printer: http://www.graphicproducts.com/tutorials/maga zine-articles/selecting-labeling-supplies.html

Companies who can print and create labels:

http://www.wisconsinpackaging.com/ www.wspackaging.com http://www.trinovadesign.com/index.asp

Ingredient Listing

All ingredients must be listed by their common name, in descending order of proportion. Ingredients for certain formulations of standard products aren't required, but these exceptions are different for each country.

The Food and Drug Administration regulates requirements. The size of the text and its position on the label are also regulated.

Code of Federal Regulations: http://ecfr.gpoaccess.gov/cgi/t/text/textidx?type=simple;c=ecfr;cc=ecfr;sid=496720d03 b7aa0eb792080f115063acc;region=DIV1;q1=in gredients;rgn=div5;view=text;idno=21;node=21 %3A2.0.1.1.2

Universal Product Codes

Many retails and distributors now require 12digit, scanner-readable universal product codes (UPCs). The codes contain product pricing and inventory information that is scanned and processed by the cash register, allowing the retailer to keep up-to-date product stock and sales information.

Codes issued in the United States, you must join the Uniform Code Council. This organization will also provide a list of reputable printers that can create film masters.

For more information, contact:

<u>Uniform Code Council Inc</u>. 300-7887 Washington Village Drive Dayton, Ohio 45459 Tel: 937-435-3870 Fax: 937-435-7317

Code of Federal Regulations: Bar Codes: http://ecfr.gpoaccess.gov/cgi/t/text/textidx?type=simple;c=ecfr;cc=ecfr;sid=496720d03 b7aa0eb792080f115063acc;region=DIV1;q1=la bel%20requirements;rgn=div8;view=text;idno=2 1;node=21%3A4.0.1.1.2.1.1.16

Nutrition Labeling

Learn what details you need to provide in your nutrition label in order to comply with the Food and Drug Administration requirements at the <u>Center for Food Safety and Applied Nutrition</u> website. Get help from the pros by having your food products lab-tested for nutritional content. <u>Intertek</u> tests food for FDA compliance to assist food manufacturers from pricey recalls for incorrect nutrition labeling.



Have your food analyzed by a professional lab that has expertise in FDA nutrition guideline compliance to prevent costly recalls and/or fines.
Check with your local health department for county guidelines on food packaging, manufacturing and shipping. Regulations differ from county to county and state to state.

Code of Federal Regulations: Nutrition Label: http://ecfr.gpoaccess.gov/cgi/t/text/textidx?type=simple;c=ecfr;cc=ecfr;sid=496720d03 b7aa0eb792080f115063acc;region=DIV1;q1=la bel%20requirements;rgn=div8;view=text;idno=2 1;node=21%3A2.0.1.1.2.1.1.6

Other Points About Labeling

You should be aware of the following:

- "Eco-labeling" (or Environmentally Friendly Labeling) falls under separate guidelines
- Before you finalize the printing of labels, all the work should be proofread several times. Also, if you are unhappy with the design work, ask the designer or printer for changes.
- Printers normally create print plates for label printing. Ask the printer if you can keep the plates when the job is completed. This will permit you to change printing companies without incurring the additional cost of creating a second plate.
- There is usually a minimum order amount when purchasing labels or packages. Determining this amount before you order will help you to avoid over-purchasing to meet the minimum.
- The cost advantages of bulk printing may be overcome by the cost of disposing of unused labels if you require



a change. Keep this in mind when you order labels.

You can get an "informal comment" on label prototypes from governmental bodies. However, these organizations won't issue a legal confirmation that a product label has met all regulatory criteria.



Hiring a Professional Designer

When thinking about your design, you should consider a professional designer. AIGA, the professional association for design puts out a guide for clients. It's worth reading and will help you understand and make the right decision of whether to hire a professional designer, or do it yourself. **Include PDF here.**

Graphic design is a creative endeavor. And a good professional designer can make a huge difference in the results you get from the work.

Just look around the web. You can tell a major difference between web sites that graphic designers have been involved with the design, look and feel of the sites, and usability.

Good graphic designers are **communicators**. That is what design is for: to communicate a product or service in a way that is visually appealing, positive and effective.

In the end, what you want from your package and/or label is results! A professional graphic designer can help you achieve results. Good graphic designers also have training and understanding in advertising and various marketing topics to aid in the creative projects they work.

There is a vast range of quality and price differences between what someone bills as a professional anything these days. Be sure to look at their portfolio and consult with them before hiring and remember to look at this pdf.

Questions to ask a Professional Designer

Choosing a designer can seem like a daunting task. You need to know if you can trust this person with the reputation of your company, because what they produce will,



in many cases, give a potential customer their first impression of your business.

- 1. Will you tell me a little bit about yourself?
- 2. How long have you been in business?

3. Do you have an office space, or are you home-based?

- 4. How many people work in your office?
- 5. What's your specialty?

6. Have you worked on this kind of a project before?

7. How much does it cost?

8. I know exactly what I want. Can I get a discount on your price, because you won't have to do as much work?

- 9. What are your payment terms?
- 10. How long is your turnaround time?

11. Who will I work with on this project? Who does the actual design work?

- 12. What's included with my project?
- 13. What do I need to provide?
- 14. What if I'm not happy with the design?

15. Who owns the design once it's finished and paid for?

16. Do you have references?

17. What happens if you go out of business?

18. Can you send me some samples?





19. Will you show me a few samples of your ideas for my project so I can get a feel for your work?

20. Why should I hire you for the job?