DIY Plant Tags: Easy, Low Cost, Design Your Own Layout

This example:
- Corrugated plastic backing
- Wire legs - go thru flutes in plastic
- Label size: 4" x 2 1/2"
- Water resistent shipping labels
- Enter data in spreadsheet
- Mail merge into Word, etc.
- Print: laser better, Inkjet possible
- Seal: greenhouse plastic tape or spray

Basic Steps

1. **Choose** label size, design content. A plant picture in each label is possible, but is more work.
2. **Order** materials.
3. **Enter data and set up mail merge.** Enter data into spreadsheet. For mail merge, use MS Word, Google docs, etc. Use a template to simpify this step. Ask for help if needed.
   - Choose a background color. It's easiest to print the background colors Not much is available for waterproof labels that are not white.
4. **Print** the labels. Laser printing is water resistent, inkjet is not. Staples, Fed Ex Office, etc. use laser printer/copiers. Color is about $.60 - $.70 per sheet (4"x2.5" labels: 8 labels per sheet).
5. **Cut plastic**. Probably a utility knife is easiest. Some paper cutters work as well.
6. **Add labels and seal.** Press the labels onto the plastic backing. Sealing the labels provides extra weather protection and reduces the effects of UV light. Greenhouse plastic is one good solution. There are also different sprays and liquid laminates available, such as Krylon Acrylic UV Resistent Coating. If you used an inkjet printer, spray with a "fixer" before sealing.
7. **Add legs**. There are several options for the wire legs. 1) Roll of wire -- can be straightened. 2) landscape staples. 3) landscape flags -- remove the flag, consider painting first.

Cost Example (4" x 2" labels) - tax not included

	Cost	# Tags	$ Per Tag
Corrugated Plastic, 4mm, 18" x 24", 2 sheet	$ 10.00	70	$ 0.14
Avery Labels, 10 sheets, 10 labels per sheet, 2" x 4"	$ 14.00	100	$ 0.14
Printing, 1 sheet, 10 labels, color	$ 0.59	10	$ 0.06
Krylon UV-Resistant Clear Coat Acrylic, 11 oz	$ 11.00	220	$ 0.05
Landscape Fabric Staples	$ 10.00	100	$ 0.10
Cost to try out this technique	**$ 45.59**		**$ 0.49**

OPTION:
>>> USE RECYCLED POLITICAL SIGNS / YARD SIGNS FOR THE CORRUGATED PLASTIC

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Questions? Need help? Was this useful? Send us a photo of you tags. Feedback welcome.

Instruction Details

1. Corrugated plastic (coroplast) plastic backing. 1/8" (4mm) thick. This is what is used for many of the lawn signs you see (political campaign signs, for sale signs, etc.). It's light weight, sturdy, easy to cut and available in different colors. And, because it's corrugated, you can make legs for the tag by sliding a u-shaped piece of wire through the plastic, with a snug fit, eliminating the need to glue the legs to the backing. Cut the plastic sheet into plant tag pieces using a utility knife, heavy duty paper cutter, heavy duty scissors, etc. CUT THE PIECES SO THAT THE FLUTES ARE VERTICAL, ALLOWING THE WIRE LEGS TO SLIDE THROUGH THE CORRUGATED PLASTIC. For example if using 2" x 4" labels, cut substrate piece 2.5" x 4.5", so that there is a 1/4" of plastic showing around the label. That size will yield about 35 sign pieces. Best price might be eBay. For example single 18" x 24" sheet at about $7 including shipping, and 5 sheets for $15 including shipping. Colors: green, white, black, orange, yellow, red, maybe more.

2.1. Water resistant shipping labels. Different sizes are available. You can even get whole sheet labels, and cut tag pieces to a custom size. One product is: white, 2"x4", 100 labels, 10 sheets, 10 labels per sheet, "White Weatherproof Shipping Labels", form # 15513, Avery Template 5163. These labels are available on Amazon Prime for $14 (includes shipping), so that is $.14 per label.

2.2 Data Entry and Mail Merge. For our tags, we entered the plant information in an excel spreadsheet, and then used MS Word 2010 mail merge to load the plant information into Word. For help getting started with mail merge, search online for instructions, using something like: 'how to use word 2010 mail merge for labels'. Start by planning how you want your tags to look, and then work backwards to decide what columns and data you need in a spreadsheet. If you're using standard labels, the seller will provide a Word template to use for the labels. Most water resistant shipping labels are white. You can create a background color by selecting it in your mail merge document, and then printing it onto the label.

Here is one example for the spreadsheet layout and the printed label:

A	B	C	D	E	F	G	H	I	J
Sel	S#	Common Name	Latin Name	Lbl Line 3	Water	Sun	Season sp sum fall	Perennial	Native
X	1	Alyssum, Aphrodite Mix	Lobularia maritima	MED WATER, FS-PS, Sum, Annual, Cultivar	MED WATER	FS-PS	Sum	Annual	Cultivar
X	2	Alyssum, Sweet	Lobularia maritima	MED WATER, FS-PS, Sum, Annual, Cultivar	MED WATER	FS-PS	Sum	Annual	Cultivar

Alyssum, Aphrodite Mix
(Lobularia maritima)
MED WATER, FS-PS, Sum,
Annual, Cultivar (ID 1)

(Column E in the spreadsheet is a formula that concatenates the values in columns F through J.)

2.3. Printing. Laser printing is water resistent, inkjet is not. Many Staples, Fed Ex Office, etc. locations offer self-service laser printing using a memory stick. Save your mail merge results as PDF file, and copy the file to a memory stick. For our labels, the cost of printing color was $.59 per sheet, plus tax. For color, that's about $.07 per label, including tax.

3. Sealing. You could try skipping this step, but the tags will probably last longer with a protective coating. Greenhouse plastic is one good solution. There are also different sprays and liquid laminates available, such as Krylon UV-Resistant Clear Coat Acrylic Spray. For the Krylon, the cost is about $11 for 11 oz.   That's maybe $.05 per label, depending on how many coats, and how thick you apply it.   You can apply the Krylon before or after you put the labels on the

plastic substrate. We did the Krylon coat first, let it dry, and then put the labels on the tag backing. If you use inkjet to print the labels, spray with a "fixer" before sealing.

4. Legs: Landscape Fabric Staple. We selected 6", 11 gauge, galvanized staples. We slipped a staple through the flutes from the top of the plastic sign piece, and down out through the bottom.   From eBay the price starts at about $10, for 25 staples. $.40 each.

Costs

Note that costs reflect more a lowest 'try out the technique' starting cost, rather than the lowest possible cost per tag.   With larger quantity/size purchases, the unit cost generally drops. For example, on Amazon you can buy 100 landscape staples for $20 (Prime/no shipping cost), $.20 per staple, half the unit cost of the example (eBay, $.40/staple).

There are lots of possibilities for material selection. The following is an introduction to more options.

1. Substrate

Some options for a plant tag substrate material are listed below. Considerations for choosing a material include: weather resistance, ease of cutting, adhesive bonding (to the label and to the legs), and UV resistance.

Plastic Substrate:
  1) Corrugated plastic (Coroplast - PE), 1/8" (3-4mm). This material was used in the basic solution example above. Very easy to cut. A good choice. Prices start at about $5 including shipping on eBay.
  2) Sintra (foam/expanded PVC), 1/8".   Prices start at about $10 including shipping for 1' x 2' sheet, on eBay (here and 3mm/select size).
  3) Plastic sheets - other. Aside from the two plastics listed above, there are a range a plastics that can be used:
  - vinyl (PVC)
  - ABS (styrene polymer)
  - polycarbonate (PC)
  - high density polyethylene (HDPE)
  - polypropylene (PP)
  - acrylic (plexiglass)

Grainger.com is one place to start looking online. Good selection of types of plastics, thickness, size, some colors. .0063" thickness (1/16") is probably best. This will be sturdy enough for a small, say 4" x 3" tag. The thicker it is the more problematic it is to cut into pieces. ABS, for example, starts at $8 (plus shipping) for a 1' x 4' sheet, .0063" thick. From there, you might find a better price on Amazon or eBay. There are quite a few online plastic sheeting sites, but often they are for industrial buyers, selling a 4' x 8' sheet as minimum order.

Wood Substrate: Options include hardboard and plywood, 3/8" or less. Probably will need painting, weatherproofing. Available at Home Depot, etc. Hardboard is available for about $6 for 2' x 4' sheet at homedepot.com.   4' x 8' sheet is a better value.

2.1 Labels - Spreadsheet and Mail merge

Plant information is loaded into a spreadsheet or database. Use mail merge from a spreadsheet/database to a label sheet template. Software options include MS Word and Google documents. Can you include a picture of plant and/or plant characteristic icons on each label? Yes, maybe. It is possible to do in Word mail merge as part of the merge process, but not all that easy. A manual copy and paste of images, after the merge process, depending on how many labels you're creating, might be easier solution, if you're not a techie guru.

Google Docs also has a mail merge feature.

2.2 Labels - Printer, Ink, Fixer

Printer options:
  1) Laser/Copier - better, toner is not water-based, consider using printing service.
  2) Inkjet - typically water-based ink, needs fixer and/or laminate.
Consider printing a background color, rather than using colored labels/paper that are not weatherproof.
Fixer. If the ink used is water-based (inkjet printer), then a solvent-based fixer should be considered. Krylon Preserve It spray is a good choice, costing about $8 for an 11 oz. can at dickblick.com. You can experiment with eliminating the fixer for water-based ink if you go with a laminate layer -- plastic film or solvent-based spray/liquid. See the Laminate section below for more information.

2.3 Labels - Print Material

It's important to match printing material with printer (laser or inkjet).   Color options for waterproof print material are limited. For labels, the larger sizes, 2"x4" and larger, will be called 'shipping labels', not 'address labels'.

1) Labels - waterproof, mostly white only. Mostly, laser printer labels are polyester and inkjet labels are vinyl. This is probably the best and easiest and to use selection. Prices start at about $13 for 100 labels, 10 sheets, 10 labels per sheet. Avery/eBay   sheet-labels.com

2) Labels - colors, but not waterproof. Similar prices to labels - waterproof. labelsbythesheet.com (lots: pastel, bright, fluorescent)   sheet-labels.com (some colors)

3) Synthetic paper - waterproof, mostly white only, no adhesive backing. Duracopy/eBay ($25 including shipping, 25 sheets)   Graytex (similar pricing)

4) Regular paper, lots of colors, usually not waterproof, no adhesive backing.   Lots of sources. Walmart, Office Depot, etc. Prices start at at about $8 for 200 sheets.

2.4 Labels - Print Material Adhesive

Labels: No additional adhesive required if you're using Avery shipping labels, for example.

Adhesives for paper options. When using colored paper, a synthetic paper, etc. that does not already have an adhesive, here are some adhesive options:
  1) With a laminate over the label/paper, options include: white glue, glue stick, Mod Podge (regular).
  2) With or without a laminate: 3M 77 Spray, Mod Podge - Outdoor (might work, available at Walmart), or most any water-resistant adhesive.   3M Super 77 Multipurpose Adhesive spray, 16 oz., is available for about $10 at homedepot.com, etc.

3. Laminate

For a laminate seal over the label, look for both weather and UV protection. If using a good quality weatherproof label and a laser printer, the laminate step provides extra protection, but you can try skipping it.

Plastic Film Laminate. One good laminate film solution is greenhouse tape.   These are typically 48 ft. in length. Width vary from 1" to 10". Price for a 2" width roll is about $8 plus shipping at findtape.com. This site has a good selection of different widths.

Spray or Liquid Laminate. Three coats of ClearShield Classic, a liquid, is an industrial strength solution. When applying, fumes released makes good ventilation conditions a must. This product is water-based, so when using water-based ink (most inkjets) for printing, then you need to first apply a fixer such as Krylon Preserve It or Krylon Clear Acrylic.   A quart of ClearShield starts at about $40 plus shipping (fellers.com). A good alternative is Krylon UV-Resistant Clear Acrylic, a solvent-based spray. Price is about $8 for 11 oz. spray can at dickblick.com.

4. Legs

Wood: jumbo craft sticks 7.5" (Walmart, $5 pack of 300), small-diameter bamboo stakes, pieces of wood twigs/branches.

Wire: The advantages of wire are 1) durability (if galvanized or painted to prevent rust) and 2) can be bent so the plant tag are at an angle and easier to read. Wire thickness gauge numbers go from 0 to 40, 0 is very thick, 40 is very thin. 11 gauge is about 1/8". Google to see a chart for this. Galvanized wire won't rust as quickly. Consider painting, etc. if the wire is not galvanized or aluminum.

Landscape fabric staples. 6", galvanized, 11 gauge. Avoid 4" and 9 gauge. Available at Home Depot, etc. eBay prices start about $10 including shipping for a pack of 25. If you use corrugated plastic as the substrate, you can slide the staple through the flutes of the plastic. Search expression: landscape fabric staples 6" galvanized 11 gauge or landscape fabric staples (for homedepot.com)

Landscape marking flag stakes. These are typically 14 gauge, 20" lengths, and not galvanized. Tear off the small orange flag at one end. Bend the wire into a U-shape, flat on top, and you have a more light-weight, and somewhat taller version of the landscape fabric staple. The 14 gauge wire is easier to bend at an angle.   Prices start at about $9 for a package of 100 at homedepot.com.

Galvanized wire roll. 12 to 14 gauge. This product requires straightening the wire which isn't all that hard to do -- by twisting a length of the wire 20 times or more. There are youtube videos on this. Clamp one end and use vice grip pliers at the other, and twist it. There is also a wire twisting pliers that sells for about $20, including shipping.   Wire roll prices start at about $11 at homedepot.com.
Search expression: galvanized wire roll 12 gauge or galvanized wire (for homedepot.com)

Topiary wire stakes. It's hard to find small lot, 11 gauge or thinner, straight wire stakes. topiaryartworks.com has 18" lengths, 100 pieces, galvanized, at about $30 including shipping.

Adhesive to attach legs.   Landscape construction adhesive might be the best for attaching legs. Cost is about $5 for 10 oz. at homedepot.com. But you can also try craft glue gun, any outdoor-

rated glue (wood glue, etc.), or specialty plastic epoxy glue (Loctite, etc.). The weakest surface will probably be the plastic, not the wire or wood surface. Sand surface first for better adhesion to a plastic substrate.

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Measurement conversions

1/16" = .0625"
1" = 25.4mm
1/8" = 3.2mm (4mm also called 1/8")
3/16" = 4.8 mm
1 mil = 1/1000 of an inch (mil used for paper thickness)
1/32 inch = 31.25 mils
1 mil = .0254 mm

Plastics technical information

SE is Surface Energy index. Higher SE has higher bond with adhesives. If the color is black, the plastic may have carbon particles in it, and then the UV resistance is good. Some plastics have UV resistant additives.

Plastic	SE	UV Resistance	
		Black	Other Color
ABS	42	2-Maybe	3-Low
PC	42	2-Maybe	2-Medium
PVC	39	2-Maybe	3-Low
Acrylic	38	1-High	1-High
PE	31	2-Maybe	3-No
PP	29	2-Maybe	3-No