Collecting and Mounting Rangeland Plants
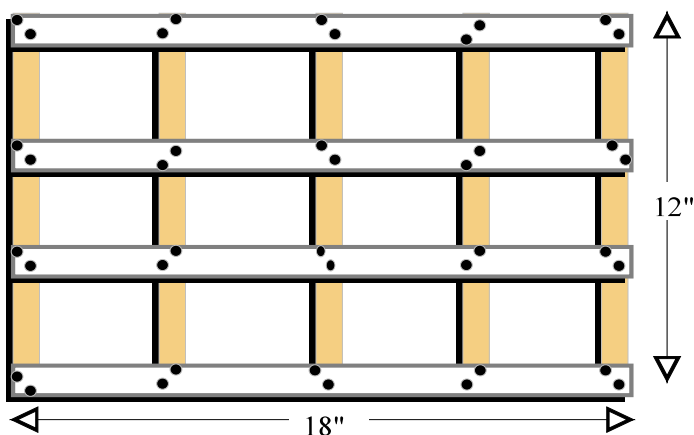
by Karen Launchbaugh

Healthy rangeland ecosystems are characterized by a diversity of native plants that provide forage for livestock and wildlife, hold soil, and yield clean water. Recognizing plant species is important to monitor forage resources, manage potentially toxic plants, identify weedy species, and simply enjoy nature. Therefore, plant identification is a necessary skill for range management and enjoyment. Pressed and dried plant specimens are useful teaching aids and references for plant identification.

Collecting and mounting plants only requires a few supplies. Plant presses, cardboard, blotters and mounting paper can be purchased from a natural resource supply company such as: Herbarium Supply Company *(1-800-348-2338, www.herbariumsupply.com)*, Pacific Papers *(1-800-676-1151, www.pacific-papers.com),* or Forestry Suppliers *(1-800-647-5368, www.forestry-suppliers.com)*. Or, you can make a press and scrounge around for other necessary items.
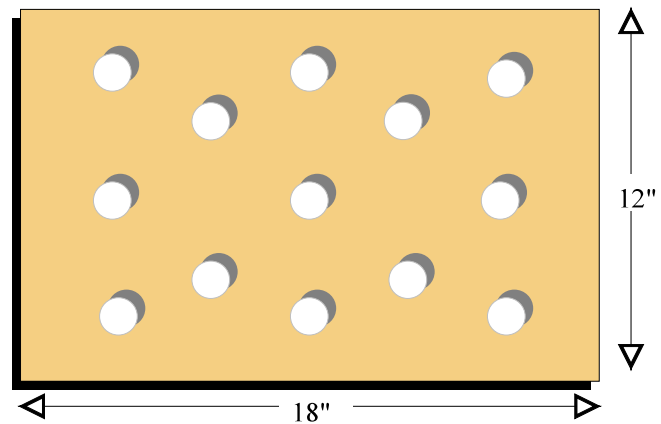
How to Make a Plant Press

What Size? True reference or voucher specimens require a press that is 12 by 18 inches. However, if you are collecting plants for classroom or personal education, there is no reason that a press be a specific size. Consider a press that is 9 by 12 inches. With this size, plants can be mounted on standard letter-size cardstock available at any office supply store.

Lattice Style Press

- 8 smoothly finished wooden lath or strips ¼" by 1½ " by 18" long
- 10 smoothly finished wooden lath or strips ¼" by 1½ " by 12" long
- Arrange strips as shone in drawing. Nail or rivet at each intersection of the strips securely to form 2 rectangles (12" x 18").

Sheet Style Press

- Cut 2, 12"x18" rectangles from a piece of high quality ½-inch plywood.
- In each rectangle, bore 13 1-inch holes for ventilation as shone in drawing.

Cut 10 or more pieces of corrugated cardboard 12" wide by 18" long with corrugations running crosswise, if possible.

Collect several pieces of newspaper measuring about 12" by 18" or folded to this size.

Blotters can be purchased from supply companies. These blotters help remove moisture from pressed plants quickly. If blotters are not available, just use extra newspaper between specimens.

The press is held together with 2 straps, cords, belts, or rope. They don't need to be fancy, they just need to be about 5 feet long.

Collecting Plants

You'll also need:
‣ a pocket sized notebook
‣ a digging tool such as a small shovel
‣ pruning shears
‣ plastic bag

Select plants that are average or representative, and avoid collecting diseased, atypical, or unusual specimens. For proper identification, an actively growing plant in the flowering or fruiting stage is necessary. When collecting, remember that you will only need enough plant material to put on an 11" by 16" piece of paper; that's not much.

Herbaceous plants such as grasses, forbs, and sedges should be collected to include the whole plant and some of the root material. If the plant is very large, collect the seedhead and a section of basal leaves. For woody plants, a typical branch, preferably with fruit or flowers, should be cut cleanly.

Remove excessive dead material and shake dirt from roots. Then, place in a plastic bag. Inside the bag, place a wet rag or paper towel to keep roots moist and limit wilting of the plant.

Record general location, habitat, soil, topography, and aspect in your field notebook. Also enter the name of the plant if you know it. The details needed in your notebook depend on the reason you are collecting plants. If you are just collecting for fun or to make decorative items, you may not need to record anything. On the other hand, if you are collecting reference specimens for positive identification, you will need to include exact location, habitat, associated species, and even color of flowers or fruits. An easy way to keep track of plants is to record a number for each plant and put the number with the plant when you press it.
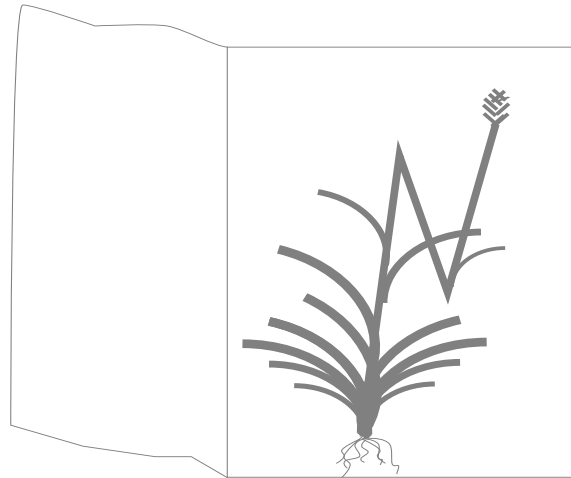
Pressing and Drying Plants

Press plants as soon as possible after collecting. Some plants wilt very quickly, especially on hot days.

Start with the plant press frame and put on one sheet of cardboard. Place a blotter or a few pieces of folded newspaper. Then, place an open piece of newspaper (12" by 18") in the press.

Grab a plant you collected, clean off roots and divide plant until an appropriate amount of plant material remains. That's right, keep ripping apart the plant until you have just enough material to put on the piece of newspaper. The most common mistake novice plant collectors make is to press too much material!

Arrange each plant on the newspaper as naturally as possible. With tall plants, it is necessary to fold the stem(s) to get it in the newspaper as shown below. Close the newspaper. Place a blotter (or more newspaper) on top of the plant then put a piece of cardboard on plant. Repeat this sequence for each plant.

When all plants are in the press, put the top press frame over the plans and tie tightly with straps, cords, or ropes. Put press in a dry warm place for several days. Tighten straps occasionally during drying.

Mounting Plants

Plants should be mounted on herbarium paper (11½" by 16½") which can be purchased from a supply company or made from stiff white paper or poster board.

Glue plants to paper with liquid glue that dries clear. Plain old Elmer's Glue will work just fine. More expensive glue can be purchased which is pliable when dried and won't crack with age. Spread glue on back of plant, then turn over onto paper.

Attach a label for the plant in the lower right-hand corner. The label should be about 2½" by 4½" and should include the common name, scientific name, location, habitat, collector, and date of collection.