

PICKING PLANTS

How to collect and preserve plants for identification

Collecting unknown plants is a good way to increase your knowledge about the vegetation in your area, but, have you ever been out in the field and come across an unfamiliar plant, picked it, and then placed it on the dashboard of your vehicle? It was probably a shriveled, unrecognizable mess by the time you arrived home.

Proper collection and care of plant samples will aid identification long after you leave the field. Proper plant preservation also allows submission of samples to experts to assist with identifying the plant species. Here's how.



1) Record information about the plant and where collected. Information may include date of collection, a photo, location using a geographical positioning system (GPS), or written description of the location including the county, elevation, landmarks, reference points, travel directions, and a description of habitat and associated vegetation. If the collected plant is a known or suspected weed, make note of the population size (acres, square feet, etc.) and density (number of stems per square yard, percent of ground surface covered by weeds, etc.).



2) Retain as many identifying characteristics as possible. One way is to collect roots, stems, leaves, and flowers or seed heads. Having as many plant parts included as possible will increase the odds of correctly identifying the plant. Collecting the roots can be difficult; a trowel, shovel, or screwdriver may help retrieve the roots. Collection of the entire root system is often impossible; the goal is to collect enough root to aid in species identification. Annual plants usually have small root systems, and 4-6 inches of root should be adequate for most perennial plants in Wyoming.



3) These plants have roots, stems, leaves, flower parts, and seed heads.



4a



4b

4) Preserve the plant collection until it can be pressed.

The plant should be pressed (drying the plant under even pressure, see step 5) as soon as possible for best results. If the plant will not be immediately pressed, place in a partially sealed Zip Lock or similar bag with a damp paper towel. Place in a cooler for transportation. Plant collections may be kept in a refrigerator several days before pressing.



5) Numerous techniques can be used to press plants. A plant press can be easily constructed using wood laths, cardboard, and straps. Plant presses can be held together with straps, ropes, clamps, or other methods to apply pressure. Plants can also be pressed using sheets of newspaper and heavy books.



6) Arrange plants to display as many characteristics as possible. Before pressing, gently clean roots of excess soil. Arrange the plant so the shape of flowers, seed heads, and leaves are visible and turn some leaves over to display both surfaces. Place the arranged plants between newspaper and cardboard and then into the plant press. Tighten the straps and allow plants to dry in the press 24 to 48 hours. Pressed plants can be safely mailed when protected between two pieces of cardboard. For assistance in identifying collected plants, contact your local University of Wyoming Cooperative Extension Service educator (<http://ces.uwyo.edu/Counties.asp>) or county weed and pest control district office (<http://www.wyoweed.org/addresses.html>). If you would like the pressed plants returned, be sure to state this when the specimen(s) is submitted.



7) Plant specimens can be preserved for many years if properly pressed. Pressed plants can also be mounted for display and storage. This larkspur displays numerous characteristics.

For more information regarding plant collection and preservation, visit the following:

- Rocky Mountain Herbarium – <http://www.rmh.uwyo.edu/>
- Barnyards & Backyards: Rural Living in Wyoming – www.uwyo.edu/barnbackyard/

To watch Rachel and Brian Meador demonstrate how to collect plants for identification, see:

<http://www.youtube.com/watch?v=NhZZDx0vc2k>

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