

Sagebrush Identification with Ultraviolet Light

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Multiple vegetation keys exist to identify sagebrush taxa. A supplementary method to aid in accurate sagebrush identification is the ultraviolet (UV) light fluorescing technique. Using this method is optional for sagebrush identification, but may be used by Government inspectors for quality assurance purposes.

Materials needed:

- 100% methanol
- water
- small glass vials
- scissors
- 366 nm UV light

UV light fluorescing method:

1. Collect sagebrush specimen. If specimens are not tested immediately, store them in separate air-tight containers (e.g., zip-lock bags).
2. Within 3 days of specimen collection – cut up sagebrush leaves with scissors into two glass vials. Put at least 2 cubic centimeters of leaf material into each vial.
3. Add water to one vial and 100% methanol to the other, so that the leaves are submerged. Do not fill the entire vial with liquid.
4. Let the leaves sit in each solution for up to 15 minutes; in many cases fluorescence may be visible immediately.
5. In a darkened area, use a 366 nm UV light and shine through each vial.
6. Record color of the liquid fluorescing in each vial
7. Identify specimen by comparing fluorescing results and morphological characteristics to the 'Sagebrush Identification Table for Use with Black Light.'

