

Conference Abstract

Replacement of Formalin-Acetic Acid-Alcohol Solution (FAA) in Herbarium Spirit Collections

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Abstract

FAA was used as a fixative and preservative for plant fruit, flowers and other parts pre-1992 at the Australian National Herbarium in Canberra and the Australian Tropical Herbarium in Cairns. In total, approximately 15,000 bottles contained FAA solution. In 2012, the Hazardous Substance classification for formaldehyde was changed from Category 3 to Category 2 in accordance with the Globally Harmonized System of Classification and Labelling of Chemicals (GHS) as it is now considered that it is probably carcinogenic in humans following inhalation exposure. The basis for lowering the current exposure standard was to provide protection against both sensory irritation and cancer. In response to these changes a FAA replacement program was developed that focused on worker safety during replacement by minimising exposure and managing the manual handling risks of the work, whilst also ensuring best-practice curatorial outcomes for the specimens.

An overview of goals achieved and the lessons learned along the way will be discussed. We hope these may be useful to other collections managers planning formaldehyde replacement programs in their institutions.

Keywords

fluid preserved specimens, conservation, FAA, formalin-acetic acid, ethanol, fixative, preservative, inhalation, plant, formaldehyde, carcinogen, cancer, safety, best-practice, global, Managers of Australasian Herbarium Collections, MAHC

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