

**Overview of NAPPO RSPM 39**  
**Packaging for the International Shipment of Live Invertebrates**  
**Used as Biological Control Agents**

**Purpose:** The standard provides guidelines for packaging biological control agents - BCAs (primarily parasitoids and predatory insects and mites) for international shipment into NAPPO member countries via ground or air cargo couriers. Adequate packaging is necessary to prevent escape, death, or damage of these beneficial organisms during transport.

**Contents:** The standard contains guidelines for packaging 1) commercially available BCAs, and 2) BCAs intended for research purposes. The latter category of BCAs, which has not yet been approved for commercial importation into NAPPO countries, requires additional layers of escape-proof packaging. **Appendix 1** of RSPM 39 includes photographs of packaging for BCAs intended for research.

**Summary of RSPM 39:** Packaging guidelines for both commercially available and research BCAs address several concerns and needs: **i) protect** the organisms from impact or pressure changes; **ii) maintain a constant optimal temperature** inside the package; **iii) prevent escape**; and **iv) provide adequate ventilation**, where needed. These concerns and needs are addressed by using multiple nested, sealed containers with cold packs and cushioning materials in outer packaging layers; by ensuring that ventilation mesh is appropriately sized to prevent escape; and by ensuring that the outermost shipping containers are able to withstand shock, impact, and the weight of other cargo(es) during transit. Packaging must also comply with IATA (International Air Transport Association) Container Requirement 62.



The system for packaging BCAs intended for research requires that shipping containers be labelled with the scientific name of the BCA, how many containers are in the shipment, shipment date, and BCA collection details. It also requires that packaging safeguards include five barriers: outer cardboard box, outer plastic bag, insulated box, sealable bag, inner container.

**Appendix 1: Photos of Packaging** contains eight photographs that illustrate the steps in packaging BCAs intended for research purposes.

**Please read RSPM 39** for a more complete description of the packaging guidelines for live invertebrates used as BCAs.

Photo by Gary Buckingham <https://www.ars.usda.gov/oc/images/photos/dec97/k7658-2>