

**LARVICIDAL ACTIVITY OF METHANOLIC
EXTRACTS AND SC-CO₂/ETANOL FROM
CAPE GOOSEBERRY (*Physalis peruviana* L.) CHALICE**

Jenny P Ortega B*, Bárbara D.M. Moreno, Fabián Parada-Alfonso,
Diego Ballesteros V. and Luz P. Restrepo S.

High Pressure Laboratory, Chemistry Department
Universidad Nacional de Colombia
Carrera 30 con calle 45, Ciudad Universitaria, edificio 451, Bogotá, COLOMBIA

As a strategic of commercial valorization of different fruit wastes, the larvicidal activity of methanolic extracts were evaluated in resistant and susceptible strains of *Culex quinquefasciatus*. Some biomasses were studied, were among others, the epicarps and the seeds of mango (*Mangifera indica*) Tommy Atkins and sugar varieties, papaya (*Carica papaya*), tree tomatoes (*Solanum betaceum*) and chalice of cape gooseberry (*Physalis peruviana*). Each matrix was subjected to Soxhlet extraction at reduced pressure, extraction yields determined and each extract was tested with third instar larvae in 96-well plates in growth medium (tap water rested and dehydrated protein) with reading to 24, 48 and 72 hours, according to the methodology WHOPEs 1981. The most active extract was obtained from the cape gooseberry chalice (IC₅₀ = 312.25 ppm, with concentrations reported as effective larvicidal activity between 100 and 1000 ppm). Given the above, the cape gooseberry chalice was extracted with supercritical fluids (supercritical CO₂ and supercritical CO₂ with ethanol as cosolvent). In this work we are reported the obtained results.

Keywords: Larvicidal activity, *Physalys peruviana*, cape gooseberry chalice.

*Corresponding author: jportegab@unal.edu.co