Acclimation to sun and shade of three accessions of the Chilean native berry-crop murta

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Murta (Ugni molinae Turcz.) is an evergreen shrub of the native forest understorey of southern Chile that produces berries which are consumed in the local markets. Because of the natural adaptation of murta to growing under the shade of trees, we propose that an adequate way of domesticating this species would be its cultivation in agroforestry systems. In order to assess the suitability of three murta accessions from different regions in southern Chile for their cultivation in such systems, we established a trial in which these accessions were submitted to six light transmittance levels (20%-100% of full solar irradiance) from planting in spring to the following autumn. Optimum growth, as assessed through dry mass accumulation and emission of branches and metamers, was achieved at moderate light transmittance levels (50%-65%). These growth traits showed stable positive responses to the relative amount of light intercepted by the plants (as estimated from plant structural traits) up to