

Enhancing nutritional and functional properties of broccoli leaves through selenium biofortification: potential for sustainable agriculture and bioactive compound valorization

Melina Soledad Buttarelli ^{1,2}, Gabriel Céccoli ^{1,3,*}, Betiana Soledad Trod ^{1,3}, María Micaela Stoffel ³, Marianela Simonutti ¹, Carlos Alberto Bouzo ^{1,3}, Valeria Turowski ⁴, Adrián Alejandro Perez ⁵, Mercè Llugany ⁶, María-Jesús Sánchez-Martín ⁷, Lucas Damián Daurelio ^{1,3}, María Gabriela Guevara ^{4,*}, Fernando Felipe Muñoz ^{3,4,*}

¹ Instituto de Ciencias Agropecuarias del Litoral (ICiAgro Litoral), Univ. Nacional del Litoral, CONICET, FCA, Laboratorio de Investigaciones en Fisiología y Biología Molecular Vegetal (LIFiBVe), Kreder 2805, CP 3080, Esperanza, Argentina; melinabuttarelli@yahoo.com.ar (M.S.B.); betianatrod@hotmail.com (B.S.T.); simonuttim@gmail.com (M.S.); cbouzo1160@gmail.com (C.A.B.); lucasdaurelio@gmail.com (L.D.D.)

² Agroecosistemas I (Nodo de integración I). Departamento de Biología Vegetal, FCA, UNL, Kreder 2805, CP 3080, Esperanza, Argentina.

³ Cátedra de Fisiología Vegetal, FCA, UNL, Kreder 2805, CP 3080, Esperanza, Argentina; m.micaela.stoffel@gmail.com (M.M.S.)

⁴ Instituto de Investigaciones Biológicas (IIB), Universidad Nacional de Mar del Plata, CONICET, Funes 3250, CP 7600, Mar del Plata, Argentina; vturrowski@gmail.com (V.T.)

⁵ Área de Biocoloides y Nanotecnología, Instituto de Tecnología de Alimentos, Facultad de Ingeniería Química, Universidad Nacional del Litoral, 1 de Mayo 3250, CP 3000, Santa Fe, Argentina; adrianperezrubin@hotmail.com (A.A.P.)

⁶ Plant Physiology Group (BABVE), Faculty of Biosciences, Universitat Autònoma de Barcelona, 08193, Bellaterra, Spain; merce.llugany@uab.cat (M.L.)

⁷ GTS Research Group, Department of Chemistry, Faculty of Science, Universitat Autònoma de Barcelona, 08193 Bellaterra, Spain; mariajesus.sanchez@uab.cat (M.J.S.M.)

* Correspondence: fermunoz81@gmail.com (F.F.M.); gabrielcnbj@yahoo.com.ar (G.C.); gguevara@mdp.edu.ar (M.G.G.)

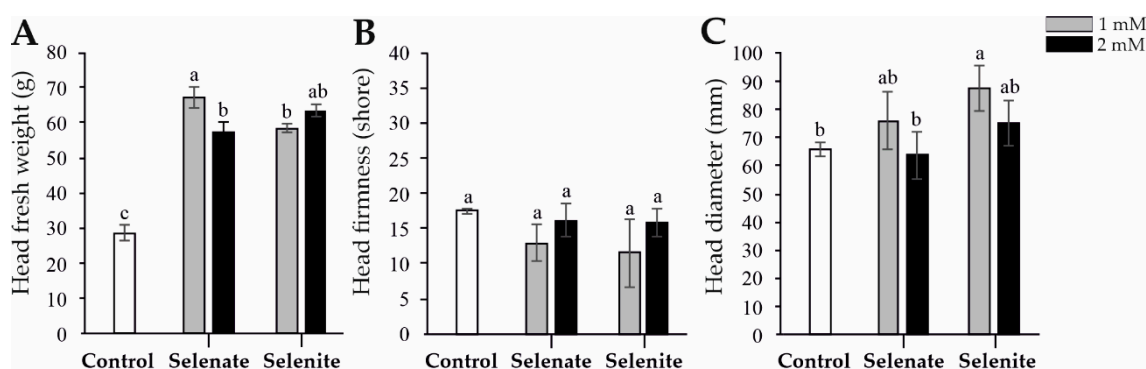


Figure S1. Effect of selenium treatments on (A) head fresh weight, (B) head firmness, and (C) head diameter at harvest. The results are expressed as the means ($n = 3$) \pm standard errors. The means not sharing any letter are significantly different according to the LSD test at the $P < 0.05$ level of significance.