

CV Date

15/01/2025

Part A. PERSONAL INFORMATION

First Name	Jesus		
Family Name	Val Falcón		
Sex	Male	Date of Birth	
ID number Social Security, Passport			
URL Web	http://scopus.com/authid/detail.url?authorId=6701522192		
Email Address			
Open Researcher and Contributor ID (ORCID)	0000-0002-8728-6616		

A.1. Current position

Job Title	Director		
Starting date	2010		
Institution	Consejo Superior de Investigaciones Científicas		
Department / Centre	Nutrición Vegetal / Estación Experimental de Aula Dei		
Country		Phone Number	
Keywords	Natural sciences and health sciences		

A.3. Education

Degree/Master/PhD	University / Country	Year
Doctor en Ciencias	Universidad de Zaragoza	1988
Licenciado en Ciencias Químicas	Universidad de Zaragoza	1983

Part B. CV SUMMARY

Dr. Jesús Val holds a PhD in Chemical Sciences from the University of Zaragoza and is a Tenured Scientist of CSIC at the Aula Dei Experimental Station (EEAD-CSIC), where he served as director for 11 years, from 2010 to 2022. Jesús Val is an expert in the study and agronomic mitigation of physiological disorders in fruits and vegetables, carrying out both basic and applied research in collaboration with numerous private companies. His work has demonstrated that foliar calcium nutrition applied to the fruit, as well as the post-harvest application of low-impact technologies, can improve fruit quality and mitigate the incidence of physiological disorders. Furthermore, several of his studies have shown that certain cultural practices applied during the cultivation of woody species can increase production, reduce crop loss, and enhance the final quality of the fruit. Therefore, Dr. Val Falcón's main research areas include: **Mineral Nutrition and Calcium Physiology**: Investigating calcium uptake and distribution in fruit trees and its relationship with disorders such as bitter pit in apples. **Fruit Quality in Stone and Pome Fruits**: Research on factors affecting fruit quality in varieties of peach, nectarine, and apple trees, including aspects such as susceptibility to post-harvest diseases and chill damage . **Pre-harvest and Post-harvest Strategies**: Development of techniques to improve fruit quality and reduce the incidence of physiological disorders, including foliar treatments and fertilization management .

His work is detailed in more than 150 scientific and outreach publications, developed in various crops, both fruit and vegetable species. **Apple, peach, cherry, quince, maize, tomato, and lettuce are some of the species he has worked with.**

Since 2010, he has supervised 7 PhD theses, with a total of **10 PhD theses directed**.

He was the **CSIC representative on the Advisory Council for Research and Development (CONAI+D)**, an advisory body to the Interdepartmental Commission on Science and Technology and the Coordinating Commission for Research of the Autonomous Community of Aragón (BOA: 08/06/2016)

He was the Deputy Director of the Aula Dei Experimental Station (CSIC) from 2006 to 2010 and **Director of the Aula Dei Experimental Station (CSIC) from 2010 to 2022**.

Part C. RELEVANT ACCOMPLISHMENTS

C.1. Most important publications in national or international peer-reviewed journals, books and conferences

AC: corresponding author. (nº x / nº y): position / total authors. If applicable, indicate the number of citations

- 1 **Scientific paper.** Krawitzky, M.; Orera, I.; Lopez-Millan, A. F.; Oria, R.; (5/5) Val, J. 2016. Identification of bitter pit protein markers in *Malus domestica* using differential in-gel electrophoresis (DIGE) and LC-MS/MS . Postharvest Biology and Technology. 111, pp.15-15. ISSN 0925-5214. <https://doi.org/http://dx.doi.org/10.1016/j.postharvbio.2015.09.006>
- 2 **Scientific paper.** Lafuente, V.; Herrera LJ; Pérez, MdM; Val, J.; Negueruela, I. 2015. Firmness prediction in *Prunus persica* 'Calrico' peaches by visible/short wave near infrared spectroscopy and acoustic measurements using optimized linear and non-linear chemometric models. Journal of the Science of Food and Agriculture. Society of Chemical Industry. 95-10, pp.2033-2040. ISSN 1097-0010.
- 3 **Scientific paper.** Aimar Navarro; Rosa Giménez; Jesús Val; María Ángeles Moreno. 2024. The Impact of Rootstock on "Big Top" Nectarine Postharvest Concerning Chilling Injury, Biochemical and Molecular Parameters. Plants. 13-5, pp.677.
- 4 **Scientific paper.** A Díaz G Echeverría CM Cantín WA Bosich J Val E Torres G Reig. 2024. WarmPeach: Estudiando el efecto del aumento de temperatura sobre la maduración y la calidad del fruto del melocotonero. DESAFÍOS EN MADURACIÓN Y POSTCOSECHA DE FRUTOS Y HORTALIZAS.
- 5 **Scientific paper.** A. Navarro; R. Giménez; C.M. Cantín; P.J. Martínez-García; (5/6) J. Val; M.A. Moreno. 2022. Chilling injury in local and modern peach cultivars from a Spanish peach bank germplasm. Acta Horticulturae. 1352, pp.237-244.
- 6 **Scientific paper.** A. Navarro; R. Giménez; (3/4) J. Val; M.A. Moreno. 2022. The influence of rootstocks on chilling injury symptoms of 'Big Top' nectarine fruits. Acta Horticulturae. 1352, pp.363-370.
- 7 **Scientific paper.** V. Lafuente; L.J. Herrera; (3/5) J. Val; R. Ghinea; A.I. Negueruela. 2019. Determination of soluble solids content in *Prunus avium* by Vis/NIR equipment using linear and non-linear regression methods. Spanish Journal of Agricultural Research. 17-4.
- 8 **Scientific paper.** G. Reig; A. Salazar; O. Zarrouk; C.F.I. Forcada; (5/6) J. Val; M. Moreno. 2019. Long-term graft compatibility study of peach-almond hybrid and plum based rootstocks budded with European and Japanese plums. Scientia Horticulturae. 243, pp.392-400.
- 9 **Scientific paper.** D. Redondo; A. Díaz; (3/3) J. Val. 2019. Low oxygen treatment prior to cold storage to maintain the quality of peaches. Acta Horticulturae. 1256, pp.567-573.
- 10 **Scientific paper.** Sohrab Davarpanah; ; JavierAbadía; Jesús Val; Mehdi Aran; Gholamhossein Davarynejad; Reza Khorassani; Ali Tehranifar. 2018. Foliar calcium fertilization reduces fruit cracking in pomegranate (*Punica granatum* cv. Ardestani). Scientia Horticulturae. Elsevier. 230, pp.86-91. ISSN 0304-4238. <https://doi.org/10.1016/j.scienta.2017.11.023>
- 11 **Scientific paper.** Herremans, Els; Melado-Herreros, Angela; Defraeye, Thijs; et al; Nicolai, Bart M.2014. Comparison of X-ray CT and MRI of watercore disorder of different apple cultivars. Postharvest Biology and Technology. Elsevier. 87, pp.42-50. ISSN 0925-5214.
- 12 **Scientific paper.** Krawitzky, M.; Arias, E.; Peiro, J. M.; Negueruela, A. I.; Val, J.; Oria, R.2014. Determination of color, antioxidant activity, and phenolic profile of different fruit tissue of spanish verde doncella apple cultivar. International Journal of Food Properties. Taylor & Francis. 17-10, pp.2298-2311. ISSN 1094-2912.

- 13 Scientific paper.** Melado-Herreros, Angela; Munoz-Garcia, Miguel-A.; Blanco, Alvaro; Val, Jesus; Encarnacion Fernandez-Valle, Ma; Barreiro, Pilar. 2013. Assessment of watercore development in apples with MRI: Effect of fruit location in the canopy. Postharvest Biology and Technology. Elsevier. 86, pp.125-133. ISSN 0925-5214.
- 14 Scientific paper.** Val, J; Fernandez, V. 2011. In-season calcium-spray formulations improve calcium balance and fruit quality traits of peach. Journal of Plant Nutrition and Soil Science. Wiley. 174-3, pp.465-472. ISSN 1436-8730.
- 15 Scientific paper.** Val, Jesus; Fernandez, Victoria; Lopez, Paola; Maria Peiro, Jose; Blanco, Alvaro. 2010. Low oxygen treatment prior to cold storage decreases the incidence of bitter pit in 'Golden Reinders' apples. Journal of the Science of Food and Agriculture. Society of Chemical Industry. 90-3, pp.536-540. ISSN 0022-5142.
- 16 Scientific paper.** Fernández, V.; Díaz, A.; Blanco, A.; Val, J. 2009. Surface application of calcium-containing gels to improve quality of late maturing peach cultivars. Journal of the Science of Food and Agriculture. 89, pp.2323-2330. ISSN 0022-5142.

C.3. Research projects and contracts

- 1 Project.** AGRINNARA: Innovación pre y postcosecha en productos con interés agroalimentario de Aragón. Gobierno de Aragón. CANTÍN MARDONES. (Estación Experimental de Aula Dei). 01/01/2023-31/12/2025. 26.420,53 €. Team member.
- 2 Project.** ESTUDIO DEL EFECTO DEL CALENTAMIENTO GLOBAL Y OTROS FACTORES CLIMATICOS EN EL DESARROLLO, LA FISIOLOGIA Y LA CALIDAD POSTCOSECHA DE FRUTOS DE MELOCOTON DE CARNE NO FUNDENTE. Programa Estatal para Impulsar la Investigación Científico-Técnica y su Transferencia - PEICTI 2021-2023. CANTÍN MARDONES. (Estación Experimental de Aula Dei). 01/09/2022-31/08/2025. 235.520 €. Team member.
- 3 Project.** EVALUACION DE LA CALIDAD Y LA VIDA UTIL DE FRUTA FRESCA BAJO NUEVAS SOLUCIONES DE ENVASES ECOLOGICOS Y ACTIVOS. Ministerio de Ciencia e Innovación. Universidades. Val Falcón. (Estación Experimental de Aula Dei). 01/12/2022-30/11/2024. 87.400 €. Team member.
- 4 Project.** CEREZA+i: "Innovaciones tecnológicas y agronómicas en cereza aragonesa para alcanzar mercados lejanos". Gobierno de Aragón; FONDO EUROPEO AGRÍCOLA DE DESARROLLO RURAL. Jesús Val Falcón. (Estación Experimental de Aula Dei). 08/06/2020-31/12/2023. 107.785 €. Co-ordinator.
- 5 Project.** RTI2018-094176-R-C33, Mejora de patrones Prunus y variedades de melocotonero, enfocado en enfermedades de postcosecha. RTI2018-094176-R-C33.. Agencia Estatal de Investigación. María Angeles Moreno Sanchez. (Estación Experimental de Aula Dei). 01/01/2019-31/12/2021. Team member.
- 6 Project.** 202040E032, Efectos sinérgicos entre determinadas prácticas culturales -tratamientos nutricionales correctores y riego deficitario controlado- para mejorar la productividad, calidad y estado sanitario de cultivos hortofrutícolas.. PROYECTOS INTRAMURALES CSIC(2009). Jesús Val Falcón. (Estación Experimental de Aula Dei). 15/01/2020-14/01/2021. 13.918,43 €. Principal investigator.
- 7 Project.** GCP2018000700, Melocotón 4.0: geomática, sensórica y prácticas agronómicas innovadoras para adaptar el cultivo al cambio climático en el Bajo Aragón. Gobierno de Aragón. Jesús Val Falcón. (Estación Experimental de Aula Dei). 01/06/2018-31/12/2020. 96.000 €. Principal investigator.
- 8 Project.** LMP130_18, Sos Monilinia: estrategias sostenibles de biocontrol para combatir la podredumbre marrón en fruta de hueso. PROYECTOS DE I+D+i EN LÍNEAS PRIORITARIAS DE LA RIS3 ARAGÓN Y DE EXCELENCIA DE CARÁCTER MULTIDISCIPLINAR para el período 2018-2020, cofinanciada con el programa operativo FEDER Aragón 2014-2020. Resolución de 4 de junio de 2019 (BOA de 12 de junio). María Angeles Moreno Sanchez. (Universidad de Zaragoza). 07/08/2018-15/09/2020.
- 9 Project.** T07_17R, Alimentos de Origen Vegetal.. ARAGON-Plan Estreg. subven. Dpto. Innov. e Invest. y univ. 2016-2019. Jesús Val Falcón. (Estación Experimental de Aula Dei - CSIC). 01/01/2017-31/12/2019. 35.151 €. Coordinator

- 10 Project.** 73557355, GRUPO OPERATIVO PARA LA REDUCCION DE FISIOPATIAS EN CEREZA: CHERRYCARE. GRUPOS OPERATIVOS SUPRA-AUTONOMICOS (AEI-Agri) MAPAMA. (Estación Experimental de Aula Dei). 10/05/2018-01/10/2018. 44.949,4 €. Co-ordinator.
- 11 Project.** Innovative fully biodegradable mulching films & fruit protection bags for sustainable agricultural practices. Comisión Europea. (Estación Experimental de Aula Dei). 2015-2018. 2.068.165 €.
- 12 Project.** Innovative options for Integrated Water Resources Management in the Mediterranean. INNOMED. CENTRO DE ACUSTICA APLICADA Y EVALUACION NO DESTRUCTIVA. Santiago Beguería Portugués. (Estación Experimental de Aula Dei). From 2017. Team member.
- 13 Project.** Mejora de la calidad del melocotón de Calanda: fisiopatías del melocotón de Calanda. Instituto Aragonés de Fomento. Jesús Val Falcón. (Centro de Investigación y Tecnología Agroalimentaria de Aragón). From 01/07/2013.
- 14 Contract.** Estudio de almacenamiento de cereza COMERCIAL QUIMICA MASSÓ. Jesús Val Falcón. 22/05/2024-22/10/2024. 6.800 €.
- 15 Contract.** Tratamiento foliar para la mejora de la calidad de manzano VIYEFRUIT, SA. Val Falcón 1. 03/05/2024-02/12/2024. 14.965 €.
- 16 Contract.** Evaluación de la efectividad de tratamientos en lechuga TIMAC AGRO ESPAÑA, S.A.. Val Falcón 1. 01/04/2024-01/10/2024. 13.237,4 €.
- 17 Contract.** Estudio de almacenamiento de cereza COMERCIAL QUIMICA MASSÓ. Jesús Val Falcón. 08/06/2023-08/09/2023. 2.710,4 €.
- 18 Contract.** Tratamiento foliar para la mejora de la calidad de manzano VIYEFRUIT, SA. Jesús Val Falcón. 16/05/2023-15/12/2023. 15.560,6 €.
- 19 Contract.** INNOMEL: Innovaciones tecnológicas y agronómicas para mitigar fisiopatías en melocotón tardío Cardona y Celma SL; La Calandina; Gobierno de Aragón. Val Falcón 1. (Estación Experimental de Aula Dei). 01/06/2022-01/06/2025. 83.550 €.
- 20 Contract.** Ensayo de aplicaciones de calcio en manzano VIYEFRUIT, SA. Jesús Val Falcón. 23/03/2022-23/03/2023. 8.349 €.
- 21 Contract.** Tratamiento foliar para la mejora de la calidad de manzano VIYEFRUIT, SA. Jesús Val Falcón. 09/03/2022-09/11/2022. 18.392 €.
- 22 Contract.** Tratamiento foliar para la mejora de la calidad de manzano y membrillo VIYEFRUIT SL. Jesús Val. 03/06/2020-02/03/2021. 14.870,9 €.
- 23 Contract.** Ensayos de validación de producto en hortícolas ARVENSIS AGRO SL. Jesús Val. (Estación Experimental de Aula Dei). 01/06/2020-28/02/2021. 5.590,2 €.

C.4. Activities of technology / knowledge transfer and results exploitation

secreto industrial. 6401_2017. Secreto Industrial 6401_2017 FORMULACIÓN TRATAMIENTOS FOLIARES DQ8568194 Spain. 25/11/2017. Consejo Superior de Investigaciones Científicas.