

Luz Maria Paucar Menacho
Academic Department of Agroindustry and Agronomy
Universidad Nacional del Santa



Qualifications

PhD, Tecnología de Alimentos, Universidad Estatal de Campinas

Employment

Academic Department of Agroindustry and Agronomy

Universidad Nacional del Santa

17 Feb 2025 → present

Universidad Nacional del Santa

17 Feb 2025 → present

Research outputs

Optimization of controlled germination conditions enhances bioactive compounds and antioxidant capacity and improves protein digestibility of Andean lupin (*Lupinus mutabilis* Sweet)

Paucar-Menacho, L. M., Lavado-Cruz, A., Verona-Ruiz, A., Simpalo-Lopez, W. D., Castillo-Martínez, W. E., Quispe-Santivañez, G. W., Gonzales-Capcha, J., Neves, N. D. A. & Schmiele, M., Jul 2026, In: Food Bioscience. 81, 109153.

Polymeric Biocoatings for Postharvest Fruit Preservation: Advances, Challenges, and Future Perspectives

Culqui-Arce, C., Paucar-Menacho, L. M., Castro-Alayo, E. M., Mori-Mestanza, D., Medina-Mendoza, M., Mori-Zabarburú, R. C., Cruzalegui, R. J., Vergara, A. J., Vera, W., Samaniego-Rafaele, C., Balcázar-Zumaeta, C. R. & Schmiele, M., Mar 2026, In: Polysaccharides. 7, 1, 12.

Antibacterial Activity of *Corryocactus brevistylus* (Sanky) Methanolic Extract Against *Staphylococcus aureus* and *Enterococcus faecalis*

Aquino-Ortega, R., Carrillo-Ng, H., Paucar-Menacho, L. M., Aguilar-Luis, M. A., Silva-Caso, W., Salvatierra-Pajuelo, Y. M., Repo-Carrasco-Valencia, R. & del Valle-Mendoza, J., 2026, In: BioMed Research International. 2026, 1, 1496244.

Mashua (*Tropaeolum tuberosum* Ruiz & Pavón): Nutritional Composition, Bioactive Compounds, and Functional Potential as an Andean Natural Ingredient

Luera-Quiñones, S., Correa, M. J., Moreno Rojo, C., Salvador-Reyes, R. & Paucar-Menacho, L. M., Dec 2025, In: Foods. 14, 24, 4198.

Oca (*Oxalis tuberosa* Mol.): An Andean Tuber With Promising Physicochemical, Technological and Nutritional Properties for Potential Industrial Applications

Aurora-Vigo, E. F., Paucar-Menacho, L. M., Anaya-Esparza, L. M. & Schmiele, M., Dec 2025, In: Plant Foods for Human Nutrition. 80, 4, 179.

Optimization of Functional Muffins with Germinated Andean Pseudocereal Flours as Partial Wheat Flour Replacers

Paucar-Menacho, L. M., Salvador-Reyes, R., Campos-Rodriguez, J., Acosta-Coral, K., Castillo-Martinez, W. E. & Gonzales-Capcha, J., Dec 2025, In: Plant Foods for Human Nutrition. 80, 4, 172.

Unveiling the potential of starch from tubers and grains as primary source of biopolymers

Culqui-Arce, C., Paucar-Menacho, L. M., Schmiele, M., Vito-Villa, J., Camacho-León, J., Mori-Mestanza, D., Auquiñivin-Silva, E. A., Cayo-Colca, I. S., Castro-Alayo, E. M. & Balcázar-Zumaeta, C. R., Dec 2025, In: Discover Food. 5, 1, 288.

Nutrients and foods associated with people's emotional state: Scientific advances and future perspectives

Espinoza-Tellez, T., Quevedo-León, R., Izaguirre-Torres, D., Paucar-Menacho, L. M. & Huamani-Huamani, A. L., 5 Oct 2025, In: Scientia Agropecuaria. 17, 1, p. 39-65 27 p.

New Frontiers in Cereal and Pseudocereal Germination: Emerging Inducers for Maximizing Bioactive Compounds

Minchán-Velayarce, H. H., Bustos, A. S., Paucar-Menacho, L. M., Vidaurre-Ruiz, J. & Schmiele, M., Sep 2025, In: Foods. 14, 17, 3090.

Semillas como subproducto del procesamiento de frutas en la industria de alimentos: Composición proximal, perfil fitoquímico y aprovechamiento en el marco de la economía circular

Paucar-Menacho, L. M., Campos-Rodriguez, J., Moreno-Rojo, C., Chuqui-Diestra, S. R. & Eusebio-Lara, S., Apr 2025, In: Scientia Agropecuaria. 16, 2, p. 215-234 20 p.

Optimization of a craft ale-type beer enriched with cañihua malt (*Chenopodium pallidicaule*) and banana passionfruit juice (*Passiflora tripartita* var. *mollissima*)

Paucar-Menacho, L. M., Salvador-Reyes, R., Castillo-Martínez, W. E., Lavado-Cruz, A., Verona-Ruiz, A., Campos-Rodriguez, J., Acosta-Coral, K., Simpalo-Lopez, W. D., López-Rodriguez, W. & Quezada-Berrú, S., 28 Feb 2025, In: Heliyon. 11, 4, e42610.

Optimization of Ale-Type Craft Beer Through the Addition of Cañihua Malt (*Chenopodium pallidicaule*) and Aguaymanto Juice (*Physalis peruviana*) Using a D-Optimal Experimental Design

Paucar-Menacho, L. M., Salvador-Reyes, R., Simpalo-Lopez, W. D., Lavado-Cruz, A., Verona-Ruiz, A., Campos-Rodriguez, J., Acosta-Coral, K., Castillo-Martínez, W. E., López-Rodriguez, W. & Quezada-Berrú, S., Feb 2025, In: Beverages. 11, 1, 4.

The role of culture in the representation of probiotic foods

Machado-Oliveira, M. C., Rodrigues, H., Bisconsin-Junior, A., Camillo, G. H. T. A., Sierra, H., Alegbeleye, O., Gomez-Corona, C., Micetic-Turk, D., Paucar-Menacho, L. M., Chinchá, A. A. I. A., Gomez-Zavaglia, A., Galmarini, M. V., Neetoo, S. H. & Sant'Ana, A. S., Oct 2024, In: Food Research International. 194, 114859.

Smart Pasta Design: Tailoring Formulations for Technological Excellence with Sprouted Quinoa and Kiwicha Grains

Paucar-Menacho, L. M., Schmiele, M., Vásquez Guzmán, J. C., Rodrigues, S. M., Simpalo-Lopez, W. D., Castillo-Martínez, W. E. & Martínez-Villaluenga, C., Jan 2024, In: Foods. 13, 2, 353.

Dietary fiber, polyphenols and sensory and technological acceptability in sliced bread made with mango peel flour

Moreno-Rojo, C., Paucar-Menacho, L. M., Chuqui-Diestra, S. R. & Castro-Zavaleta, V., 2024, In: Brazilian Journal of Food Technology. 27, e2023073.

Optimization for whole grain flours from germinated Andean pseudocereals

Paucar-Menacho, L. M., Simpalo-Lopez, W. D., Castillo-Martínez, W. E., Esquivel-Paredes, L. J., Martínez-Villaluenga, C. & Schmiele, M., 2024, In: Ciencia Rural. 54, 11, e20220402.

Tecnologías emergentes no térmicas en la industria alimentaria: Avances y potenciales aplicaciones en el procesamiento de alimentos

Paucar-Menacho, L. M., Moreno-Rojo, C. & Chuqui-Diestra, S. R., 2024, In: Scientia Agropecuaria. 15, 1, p. 65-83 19 p.

Technological and health properties and main challenges in the production of vegetable beverages and dairy analogs

Andressa, I., Kelly Silva do Nascimento, G., Monteiro dos Santos, T., Rodrigues, R. D. S., de Oliveira Teotônio, D., Paucar-Menacho, L. M., Machado Benassi, V. & Schmiele, M., 20 Dec 2023, In: Food and Function. 15, 2, p. 460-480 21 p.

Enhancing Nutritional Profile of Pasta: The Impact of Sprouted Pseudocereals and Cushuro on Digestibility and Health Potential

Paucar-Menacho, L. M., Vásquez Guzmán, J. C., Simpalo-Lopez, W. D., Castillo-Martínez, W. E. & Martínez-Villaluenga, C., Dec 2023, In: Foods. 12, 24, 4395.

New Breakfast Cereal Developed with Sprouted Whole Ryegrass Flour: Evaluation of Technological and Nutritional Parameters

Lima, C. T., Santos, T. M. D., Neves, N. D. A., Lavado-Cruz, A., Paucar-Menacho, L. M., Clerici, M. T. P. S., Meza, S. L. R. & Schmiele, M., Nov 2023, In: Foods. 12, 21, 3902.

Formation and Consolidation of Research Seedbeds: A Systematic Literature Review

Avolio, B., Paucar-Menacho, L. M. & Pretell, C., 2023, In: International Journal of Learning, Teaching and Educational Research. 22, 4, p. 286-309 24 p.

Maracuyá (*Passiflora edulis*): Composición nutricional, compuestos bioactivos, aprovechamiento de subproductos, biocontrol y fertilización orgánica en el cultivo

Campos-Rodriguez, J., Acosta-Coral, K., Moreno-Rojó, C. & Paucar-Menacho, L. M., 2023, In: Scientia Agropecuaria. 14, 4, p. 479-497 19 p.

Andean Sprouted Pseudocereals to Produce Healthier Extrudates: Impact in Nutritional and Physicochemical Properties

Paucar-Menacho, L. M., Schmiele, M., Lavado-Cruz, A. A., Verona-Ruiz, A. L., Mollá, C., Peñas, E., Frias, J., Símpalo-Lopez, W. D., Castillo-Martínez, W. E. & Martínez-Villaluenga, C., Oct 2022, In: Foods. 11, 20, 3259.

Use of Andean pseudocereals in beer production

Paucar-Menacho, L. M., Salvador-Reyes, R., Castillo-Martinez, W. E., Símpalo-López, W. D., Verona-Ruiz, A., Lavado-Cruz, A., Quezada-Berrú, S. & López-Rodríguez, W., Oct 2022, In: Scientia Agropecuaria. 13, 4, p. 395-410 16 p.

Performance of Thermoplastic Extrusion, Germination, Fermentation, and Hydrolysis Techniques on Phenolic Compounds in Cereals and Pseudocereals

Paucar-Menacho, L. M., Castillo-Martínez, W. E., Símpalo-Lopez, W. D., Verona-Ruiz, A., Lavado-Cruz, A., Martínez-Villaluenga, C., Peñas, E., Frias, J. & Schmiele, M., 1 Jul 2022, In: Foods. 11, 13, 1957.

Improving Nutritional and Health Benefits of Biscuits by Optimizing Formulations Based on Sprouted Pseudocereal Grains

Paucar-Menacho, L. M., Símpalo-López, W. D., Castillo-Martínez, W. E., Esquivel-Paredes, L. J. & Martínez-Villaluenga, C., 1 Jun 2022, In: Foods. 11, 11, 1533.

Reformulating Bread Using Sprouted Pseudo-cereal Grains to Enhance Its Nutritional Value and Sensorial Attributes

Paucar-Menacho, L. M., Símpalo-López, W. D., Castillo-Martínez, W. E., Esquivel-Paredes, L. J. & Martínez-Villaluenga, C., 1 Jun 2022, In: Foods. 11, 11, 1541.

Quinoa (*Chenopodium quinoa*): Nutritional composition and bioactive compounds of grain and leaf, and impact of heat treatment and germination

Campos-Rodriguez, J., Acosta-Coral, K. & Paucar-Menacho, L. M., Jun 2022, In: Scientia Agropecuaria. 13, 3, p. 209-220 12 p.

Aceite de *Lupinus mutabilis* obtenido por prensa expeller: Análisis de rendimiento, caracterización fisicoquímica, capacidad antioxidante, ácidos grasos y estabilidad oxidativa

Pascual-Chagman, G., Santa-Cruz-Olivos, J., Hidalgo, A., Benavente, F., Carmen Pérez-Camino, M., Sotelo-Mendez, A., Paucar-Menacho, L. M. & Encina-Zelada, C. R., 2021, In: Scientia Agropecuaria. 12, 2, p. 219-227 9 p.

A comparative study on the phenolic bioaccessibility, antioxidant and inhibitory effects on carbohydrate-digesting enzymes of maca and mashua powders

Paucar-Menacho, L. M., Peñas, E., Hernandez-Ledesma, B., Frias, J. & Martínez-Villaluenga, C., Sep 2020, In: LWT. 131, 109798.

Pitahaya (*Hylocereus* spp.): Cultivo, características fisicoquímicas, composición nutricional y compuestos bioactivos

Verona-Ruiz, A., Urcia-Cerna, J. & Paucar-Menacho, L. M., Jul 2020, In: Scientia Agropecuaria. 11, 3, p. 439-453 15 p.

Lúcuma (*Pouteria lucuma*): Composición, componentes bioactivos, actividad antioxidante, usos y propiedades beneficiosas para la salud

La Quintana, R. M. D. & Paucar-Menacho, L. M., Mar 2020, In: *Scientia Agropecuaria*. 11, 1, p. 135-142 8 p.

Oxidative stability and shelf life of avocado oil extracted cold and hot using discard avocado (*Persea americana*)

Guillén-Sánchez, J. & Paucar-Menacho, L. M., Mar 2020, In: *Scientia Agropecuaria*. 11, 1, p. 127-133 7 p.

Optimización de las características nutricionales, texturales y sensoriales de cookies enriquecidas con chía (*Salvia hispánica*) y aceite extraído de tarwi (*Lupinus mutabilis*)

Salvatierra-Pajuelo, Y. M., Azorza-Richarte, M. E. & Paucar-Menacho, L. M., 2019, In: *Scientia Agropecuaria*. 10, 1, p. 7-17 11 p.

Optimization of the blanching time and temperature in the manufacture of Hass avocado pulp using low quality discarded fruits

Salvador-Reyes, R. & Paucar-Menacho, L. M., 2019, In: *Brazilian Journal of Food Technology*. 22, e2018244.

Effect of Dry Heat Puffing on Nutritional Composition, Fatty Acid, Amino Acid and Phenolic Profiles of Pseudocereals Grains

Paucar-Menacho, L. M., Duenñas, M., Peñas, E., Frias, J. & Martínez-Villaluenga, C., 1 Dec 2018, In: *Polish Journal of Food and Nutrition Sciences*. 68, 4, p. 289-297 9 p.

Response surface optimisation of germination conditions to improve the accumulation of bioactive compounds and the antioxidant activity in quinoa

Paucar-Menacho, L. M., Martínez-Villaluenga, C., Dueñas, M., Frias, J. & Peñas, E., 1 Feb 2018, In: *International Journal of Food Science and Technology*. 53, 2, p. 516-524 9 p.

Optimization of germination time and temperature to maximize the content of bioactive compounds and the antioxidant activity of purple corn (*Zea mays* L.) by response surface methodology

Paucar-Menacho, L. M., Martínez-Villaluenga, C., Dueñas, M., Frias, J. & Peñas, E., 1 Mar 2017, In: *LWT*. 76, p. 236-244 9 p.

Optimizing germination conditions to enhance the accumulation of bioactive compounds and the antioxidant activity of kiwicha (*Amaranthus caudatus*) using response surface methodology

Paucar-Menacho, L. M., Peñas, E., Dueñas, M., Frias, J. & Martínez-Villaluenga, C., 1 Mar 2017, In: *LWT*. 76, p. 245-252 8 p.

Soybean: Bioactive compounds improved by germination, fermentation and enzymatic hydrolysis

Schmiele, M., Vernaza, M. G., da Silva, L. H., Paucar-Menacho, L. M. & Chang, Y. K., 1 Jan 2014, *Seeds as Functional Foods and Nutraceuticals: New Frontiers in Food Science*. Nova Science Publishers, Inc., p. 3-22 20 p.

Effect of adding ascorbic acid on the quality of sliced loaf with partial substitution of amaranth flour (*Amaranthus caudatus*) and wheat bran (*Triticum aestivum*)

Paucar-Menacho, L. M., María-Podestá, N. S. & Cerna-Lucio, N. A., Jan 2013, *Bread Consumption and Health*. Nova Science Publishers, Inc., p. 141-152 12 p.

Brazilian soybean products: Functional properties and bioactive compounds

Vernaza, M. G., Schmiele, M., Paucar-Menacho, L. M., Steel, C. J. & Chang, Y. K., 15 Nov 2012, *Hispanic Foods: Chemistry and Bioactive Compounds*. American Chemical Society, p. 259-277 19 p. (ACS Symposium Series; vol. 1109).

Effect of time and temperature on bioactive compounds in germinated Brazilian soybean cultivar BRS 258

Paucar-Menacho, L. M., Berhow, M. A., Mandarino, J. M. G., Chang, Y. K. & Mejia, E. G. D., Aug 2010, In: *Food Research International*. 43, 7, p. 1856-1865 10 p.

A high-protein soybean cultivar contains lower isoflavones and saponins but higher minerals and bioactive peptides than a low-protein cultivar

Paucar-Menacho, L. M., Amaya-Farfán, J., Berhow, M. A., Mandarino, J. M. G., Mejia, E. G. D. & Chang, Y. K., 1 May 2010, In: *Food Chemistry*. 120, 1, p. 15-21 7 p.

Optimisation of germination time and temperature on the concentration of bioactive compounds in Brazilian soybean cultivar BRS 133 using response surface methodology

Paucar-Menacho, L. M., Berhow, M. A., Mandarino, J. M. G., de Mejia, E. G. & Chang, Y. K., 15 Mar 2010, In: Food Chemistry. 119, 2, p. 636-642 7 p.

Desenvolvimento de massa alimentícia fresca funcional com a adição de isolado protéico de soja e polidextrose utilizando páprica como corante

Paucar-Menacho, L. M., Da Silva, L. H., De Azevedo Barretto, P. A., Mazal, G., Fakhouri, F. M., Steel, C. J. & Collares-Queiroz, F. P., 2008, In: Ciencia e Tecnologia de Alimentos. 28, 4, p. 767-778 12 p.

Refino de óleo de farelo de arroz (*Oryza sativa* L.) em condições brandas para preservação do γ -orizanol

Paucar-Menacho, L. M., Da Silva, L. H., Sant'Ana, A. D. S. & Gonçalves, L. A. G., Aug 2007, In: Ciencia e Tecnologia de Alimentos. 27, SUPPL.1, p. 45-53 9 p.

Press/Media

Chimbote: Candidates for rector at the University of Santa will present their proposals

Paucar Menacho, L. M., Mas Sandoval, R. K. & Rodriguez Paucar, G. N.

8/12/21

1 item of Media coverage

Conasein 2025 Clausura with more than 40 university delegations committed to scientific research

Paucar Menacho, L. M.

29/09/25

2 items of Media coverage

Data on Biopolymers Described by Researchers at Universidad Nacional del Santa (Unveiling the potential of starch from tubers and grains as primary source of biopolymers)

Paucar Menacho, L. M.

12/09/25

1 item of Media coverage

International Womens Day: researchers led more than 1,600 projects funded by CONCYTEC in the country

Paucar Menacho, L. M.

6/03/26

2 items of Media coverage

Peru : Development of healthy products with high content of bioactives and antioxidants

Paucar Menacho, L. M.

16/05/23

1 item of Media coverage

Peru : ProCiencia Doctoral Program Fellows Visited Modern ITP CITE Network Laboratories

Paucar Menacho, L. M.

3/07/24

2 items of Media coverage

Study Results from Universidad Nacional del Santa Update Understanding of Chronic Disease (New Frontiers in Cereal and Pseudocereal Germination: Emerging Inducers for Maximizing Bioactive Compounds)

Paucar Menacho, L. M.

26/09/25

1 item of Media coverage

Projects

Desarrollo de Análogo de carne con alto valor proteico obtenido apartir de la mezcla de harina de Tarwi Germinado y Proteína Aislada de Soya a través de la Extrusión Termoplástica a alta humedad Aplicado a un Sistema Modelo No Cárnico en la Región Áncash

Paucar Menacho, L. M. (PI)

26/07/23 → ...

Desarrollo de productos de panificación saludables con alto contenido de compuestos bioactivos y capacidad antioxidante a partir de harina de granos Andinos Germinados

Paucar Menacho, L. M. (PI)

3/12/18 → 7/08/20

Desarrollo de productos extruidos saludables con alto contenido de compuestos bioactivos y capacidad antioxidante a partir de harina de quinua, kiwicha y cañihua germinados

Paucar Menacho, L. M. (PI), Castillo-Martínez, W. E. (Col), Simpalo-Lopez, W. D. (Col), Peñas Pozo, M. E. (Col) & Frias Arevalillo, M. J. (Col)

23/02/21 → 31/05/23

Desarrollo de una Pasta Alimenticia funcional con alto contenido de Compuestos Bioactivos y Capacidad Antioxidante Adicionando Harina de Pseudocereales Andinos Germinados y enriquecido con Cushuro como fuente de Hierro destinado a Niños en Edad Escolar de la Región Ancash

Paucar Menacho, L. M. (PI), Martínez-Villaluenga, C. (Col), Castillo Martinez, W. E. (Col) & Simpalo-Lopez, W. D. (Col)

29/07/21 → 8/01/24

Programa de Doctorado en Ingeniería Agroindustrial, Mención Transformación Avanzada de Granos y Tubérculos Andinos

Paucar Menacho, L. M. (PI)

23/12/23 → ...