PROFESSOR EFREN DELGADO (Ph.D)

FOOD TECHNOLOGY AND BIOPROCESSING SENIOR SCIENTIST

- Author of over 73 peer-reviewed articles and 10 books or book chapters on bioprocessing and engineering, 5 patents, more than 100 conference proceedings in bioprocessing. Strong grant funding. Lectures and seminars were given in different institutions, universities and industries in different countries.
- Renowned expert in food science and bioprocessing engineering research, development, and value-added product development.
- Extensive experience in the planning and implementation of bioprocessing and food manufacturing operations.
- Over 20 years of experience directing and supervising graduate and udnergraduate students, Demostrated leadership for strong and relevnt programming in research, teaching and extension, developping and managing budget.
- Over 20 years of consulting experience to global food manufacturing industries in USA, Europe and Latin America.
- Strong experience fostering and building strong working relationships with collogues, other disciplines, stakeholders, and industry partners.

EDUCATION

Ph.D, Technische Universität Berlin, Berlin, Germany 1995
Area of concentration: Chemical Processes in Food
M.Sc., Humbold Universität Berlin, Berlin, Germany, 1991
Area of concentration: Grain Processing Technology
B.Sc., Humbold Universität Berlin, Berlin, Germany, 1990
Area of concentration: Food Processing Technology

AREAS OF SPECIALIZATION

Functional foods
Utilization of Agro-industrial Bioproducts
Extrusion Technology
Protein Isolation & Separation
Value-added and Food Processing
Microencapsulation
Cereal Technology
Meat processing

PROFESSIONAL EXPERIENCE

New Mexico State University, Las Cruces, NM, since July 2016. Food Science and Technology/ Department of Family Consumer Science.
Co-Director of the Center of Excellence in Sustainable Food and Agricultural Systems, Since November 2020.
Professor, Associate Professor**,** Assistant Professor of Food Science and Technology, Department of Family Consumer Science, New Mexico State University**,** Las Cruces, NM, 2016 - present.
Adjunct Professor: New Mexico State University, Las Cruces, NM, 2010 - 2016.
Department of Family Consumer Science.
Tierra del Sol Farms – El Paso, Texas 2010 to 2013. ***Director product development and technology division***
Manages all aspects of food processing technology and development of new products.
Technical Institute of Durango, Durango, Mexico 2001 to 2012
Professor, Graduate School of Biochemistry Engineering, Department of Chemistry and Biochemistry
Biotecon Diagnostics, Potsdam, Germany 2000 to 2001
Research and Development
Institute of Agricultural Chemistry - Georg August University, Gottingen, Germany 1995 to 2000
Assistant Professor
Instructor and Principal Researcher in an advanced academic institution attended by 30,000 students from Asia, Europe, Africa and America. The university provides biotechnology and agrotechnology research and development resources to benefit the global farming and food processing industries.

Administered grants and managed projects funded by the German government and private industry in India, Indonesia, Germany, South America, Israel and Poland. Defined, coordinated and provided technical, financial and managerial oversight to research projects. Provided classroom instruction, managed laboratory activities, coordinated workflows and supervised six laboratory technicians and an administrative assistant. Served as advisor and mentor to as many as eight PhD students.

Technische Universität Berlin, **Berlin, Germany** 1992 to 1995
Graduate Teaching and Research Assistant
Contributed in the areas of technology and chemical R&D projects in support of the milling, bakery and starch industries. Advised and supervised Master's thesis projects for five students and directed a Technical Assistant in the conduct and documentation of research projects.

Federal Institute of Nutrition, **Potsdam-Rehbruke, Germany** 1992
Research Assistant

AWARDS & DISTINCTIONS

- 2022 Faculty Fellowship Program in Israel
- 2022 Distinguished member of the teaching Academy, NMSU
- 2020 I was selected by Provost Parker to be part of the cohort for the Association of College and University Educators (ACUE) - Effective Teaching Practices Course
- 2020 Outstanding Aggie Researcher award at New Mexico State University.
- 2019 The 2019 Excellence in Multistate Research Award to W4122.
- 2019 I was awarded a Fulbright- Colombia Land Grant University Consortium U.S. Scholar Program, Cohort 2019.
- 2018 – Designated as co-director of Bioprocessing and Agriculture Automation Program.
- 2018-Recipient of the Martin Steinman Endowed Professor in Food Science and Technology.
- 2018-2019-NMSU Distinguished Member, Teaching Academy.
- 2018-NMSU Nominated for the Mobley Family Endowed Distinguished Research Award.
- 2017- USDA Awarded E. Kika De La Garza Fellowship
- 2016-2017-NMSU Awarded Sustaining Member at the Teaching Academy.
- Scientific Official for the State of Lower Saxony, Germany. From 1995 to 2001.
- Member of the Mexican National Researcher's System (Sistema Nacional de Investigadores, Mexico), since 2003.
- Member of the Executive Committee of the Center for Latin American and Border Studies (CLABS) at New Mexico State University, USA, since June 2016.
- Member of the Feeding Tomorrow Graduate Scholarship Jury (Institute of Food Technology)

BOOKS PUBLISHED

1. De La Torre Martínez, Delgado, E., Rodriguez Rosales, MDJ., Medrano-Roldán, H., López Miranda, J., Reyes-Jáquez, D. 2022. Prediction of solubility and miscibility parameters of bismuth-arsenic complex and amorphous mineral compounds using molecular dynamic simulation. In: Bismuth-Based Nanostructured Materials. IntechOpen. (ISBN 978-1-83768-048-1).
2. Ortiz-Romero, N., Delgado, E., Pámanes-Carrasco, G.P., Medrano-Roldán, H., Hernández-Vargas, V., Reyes-Jáquez, D. 2022. Development and evaluation of an extruded balanced food for sheep based on cottonseed meal (gossypium hirsutum). In: Cotton. Editor: Ibrokhim Y. Abdurakhmonov. IntechOpen. https://www.intechopen.com/online-first/80237 doi: 10.5772/intechopen.102425.
3. Reyes-Jaquez D, Medrano H, Delgado E. 2021. "Production of extruded balanced feed for rainbow trout, using cotton seed meal as a source of protein: an academic business approach." Editorial Academica Espanola. Pg 1 – 52. ISBN: 978-620-0-42552-2.
4. Gamero-Barraza, J.I., Reyes-Jáquez, D., Medrano-Roldán, H., Morales-Castro, J., Martínez-P, M.A., Delgado. E., Cooke, P., Rosas-Flores, W. (2018). Chapter 12, Effect of extrusión processing on cottonseed protein nd corn flour interactions through molecular dynamic simulation. In: Book of Proceedings – Latin Food 2018, 8th

Food Science, Biotechnology and Safety Congress: Editor: Mexican Association of Food Science AMECA, Pg 213 – 218. ISBN 03-2019-061013491700-01.

5. Delgado, E., & Reyes-Jaquez, D. (2017). Extruded aquaculture feed. In: Extrusion: Editor: Sayyad Zahid Qamar Sultan Qaboos University, Oman. Pg., 145 -163. ISBN 978-953-51-5340-5.
6. La extrusión en la elaboración de alimentos tipo botana. M. Atienzo-Lazos, E. Delgado-Licon, A. Ochoa-Martínez, F. Martínez-Bustos, B. Ramírez-Wong, J. A. Gallegos-Infante, H. Medrano-Roldan. 2009.. Primera edición. Artes Gráficas LA IMPRESORA, *La casa editorial de Durango.* ISBN 968-5906-99-8.
7. Food Science and Food Biotechnology in Developing Countries. 2008. Cristóbal Noé Aguilar, Juliana Morales Castro, Efren Delgado, Diana Jasso Cantu, and AshokPandey. Asiatech Publischer, Inc., New Delhi. ISBN 81-87680-16-4.
8. Cisneros-Arreola, D., Mata-Escobedo, M., & Delgado-Licon, E. (2008). Producción de alfalfa en los municipios de Nuevo Ideal y Durango, Dgo. Instituto Tecnológico Villa Montemorelos. Folleto Tecnico No. 3. Fundación Produce Durango, ISBN 978-968-9346-03-6.
9. Garcia-Tapia, G., Barba-Quointero, G., Delgado-Licon, E., Gonzalez-Herrera, S., Gallegos-Infante, J.A. & Ramirez de Leon, J.A. (2008). Detection of risk zones of histamine production in yellowfin tuna meat production during unitary operations in canning industry. In: Food Science and Food Biotechnology in Developing Countries. Asiatech Publishers, Inc. New Delhi. ISBN 81-87680-16-4. Pp. 492-494.
10. Noe-Aguilar, C., Morales-Castro, J., Delgado, E., Jasso-Cantu, D & Pandey, A. (2008). Food Science and Food Biotechnology in Developing Countries. Asiatech Publishers Inc. New Delhi. ISBN 81-87680-16-4. 512 pgs.

PATENTS

1. Reyes-Jaquez D, Medrano H, Delgado E. 2021. "Production of extruded balanced feed for rainbow trout, using cotton seed meal as a source of protein: an academic business approach." Editorial Academica Espanola. Pg 1 – 52. ISBN: 978-620-0-42552-2.
2. Reyes-Jaquez D, Medrano H, **Delgado E**. 2020. Extruded rainbow trout feed made with cottonseed meal as a protein source. Patent Number: MX/a/2020/005367.
3. Reyes-Jaquez D, **Delgado E**, Medrano H, Solis-Soto A, Andrade-Gonzalez I, Leon-Hinojosa Y, Salazar-Ibarra J, Calderon-Saucedo MA. 2015. Adjustable feeding hopper for extruder. Patent Number: Patent Number: MX_I_2015_111704.
4. Reyes-Jaquez D, **Delgado E**, Medrano H, Solis-Soto A, Andrade-Gonzalez I, Leon-Hinojosa Y, Salazar-Ibarra J, Calderon-Saucedo MA. 2015. Extruder barrel with four hollow chambers and straight flutes. Patent Number: Patent Number: MX_I_2015_111705.
5. Reyes-Jaquez D, **Delgado E**, Medrano H, Solis-Soto A, Andrade-Gonzalez I, Leon-Hinojosa Y, Salazar-Ibarra J, Calderon-Saucedo MA. 2015. Injection die with injection port and conical internal geometric configuration. MX_I_2015_111706.

JOURNAL PUBLICATIONS

1. Cabrales-Arellano, P., Park, Minor, M., E., Delgado, E., Valles-Rosales, D., Taboada, H., Espiritu, J., Su, J., Park, Y. 2022. Rapid identification of Staphylococcus aureus based on a fluorescence imaging/detection platform that combines loop mediated isothermal amplification assay and the smartphone-based system. Scientific Reports, 12, 20655. https://doi.org/10.1038/s41598-022-25190-6. Impact factor of 4.576.
2. Sapkota G, Delgado E, VanLeeuwen DF. Holguin O, Flores N, Heyduck R, Yao S. 2022. Dynamics of Nutrients in Jujube (Ziziphus jujuba Mill.) at Different Maturity Stages, Cultivars, and Locations. HortScience, accepted for publication in 2022.
3. Nájera-Domínguez C, Gutiérrez-Méndez N, Carballo-Carballo DE, Peralta-Pérez MR, Sánchez-Ramírez B, Nevarez-Moorillón GV, Quintero-Ramos A, García-Triana A, Delgado E. 2022. Milk-Gelling Properties of Proteases Extracted from the Fruits of Solanum Elaeagnifolium Cavanilles. International Journal of Food Science. Accepted for publication.

4. Quintero, J., Torres, JD., Corrales-Garcia, LL., Ciro, G., Delgado, E., Rojas, J. 2022. Effect of the concentration, pH, and Ca2+ ions on the rheological properties of isolate proteins from quinoa, lentil, and black bean. Foods, 11, 3116. https://doi.org/10.3390/foods11193116.
5. Gamero-Barraza, J.I., Pamanes-Carrasco, GA., Delgado, E, Medrano-Roldan, H, Gallegos-Ibanez, D, Reyes-Jaquez, D. 2022. Black Soldier Fly: Prospection of the inclusion of insect-based ingredients in extruded foods. Food Chemistry Advances. 100075. https://doi.org/10.1016/j.focha.2022.100075.
6. Rodríguez-Betancourt, D.J., Pámanes-Carrasco, G.A., Delgado, E., Rodríguez-Rosales, M.D.J., Medrano-Roldán, H., Reyes-Jáquez, D. 2022. Extraction optimization and molecular dynamic simulation of cellulose nanocrystals obtained from bean forage. Biocatalysis and Agricultural Biotechnology, 102443. https://doi.org/10.1016/j.bcab.2022.102443.
7. Velázquez-Martínez, V., Valles-Rosales, D., Rodríguez-Uribe, L., Laguna-Camacho, J.R., López-Calderón, H.D., Delgado, E. 2022. Effect of different extraction methods and geographical origins on the total phenolic yield, composition, and antimicrobial activity of sugarcane bagasse extracts. Front in Nutr, 9:834557. doi: 10.3389/fnut.2022.834557.
8. Velazquez Martinez, V., Quintero Quiroz, J., Rodriguez Uribe, L., Valles Rosales, D., Klasson, T.K., Delgado, E. 2022. Effect of glandless cottonseed meal protein and maltodextrin as microencapsulating agents on spray-drying of sugar cane bagasse phenolic compounds. J Food Sci, 87(2), 750 – 763. https://doi.org/10.1111/1750-3841.16032.
9. Mesta-Vicuña, G., Quintero-Ramos, A., Meléndez-Pizarro, CO., Galicia-García, T., Sánchez-Madrigal, MA., Delgado, E., Ruiz Gutiérrez, MG. 2022. Physical, Chemical and Microbiological Properties During Storage of Red Prickly Pear Juice at different pH Processed by a Continues Flow UV-C System. Applied Sciences. Accepted for publication.
10. Cram, A., Espiritu, J., Taboada, H., Valles-Rosales, D.J., Park, YH., Delgado, E., Su, J. 2022. Multi-objective biofuel feedstock optimization considering different land-cover scenarios and watershed impacts. Clean Technologies and Recycling 2(2), 103-118. https://doi.org/10.3934/ctr.2022006
11. Bermúdez-Quiñones, G., Ochoa-Martinez, A., Gallegos-Infante, J.A., Rutiaga-Quiñones, O.M., Lara-Ceniceros T., Delgado, E., Gonzalez-Herrea, S.M. 2021. Synbiotic microcapsules using agavins and inulin as wall materials for Lactobacillus casei and Bifidobacterium breve: Viability, physicochemical properties, and resistance to in vitro oro-gastrointestinal transit. Journal of Food Processing and Preservation, 45(12) e16106. https://doi.org/10.1111/jfpp.16106
12. Delgado E., Valles-Rosales D. J.2, Pámanes-Carrasco G. A.3, Cooke P.4, Flores N. C.1, Reyes-Jáquez D 2021. Structural, rheological, and calorimetric properties of an extruded shrimp feed using glandless cottonseed meal as a protein source. Journal of Aquaculture Research and Development 12(3), 627.
13. Delgado E, Alvarado-González, Ó*., Medrano-Roldán, H., Rodríguez-Miranda, J., Carrete-Carreón, F., Reyes-Jáquez, D. 2021. Evaluation of fish oil content and cottonseed meal with ultralow gossypol content on the functional properties of an extruded shrimp feed. Aquaculture Reports 19, 1-6. https://doi.org/10.1016/j.aqrep.2021.100588.
14. Velazquez-Martinez, V., Valles-Rosales, D., Rodriguez-Uribe, L.. Holguin, O., Quintero-Quiroz, J., Reyes-Jaquez, D., Rodriguez-Borbon, M.I., Villagrán-Villegas, L.Y., Delgado, E. 2021. Antimicrobial, shelf-life stability, and effect of maltodextrin and gum arabic on the encapsulation efficiency of sugarcane bagasse bioactive compounds. Foods 10(1), 115, https://doi.org/10.3390/foods10010116.
15. Rojas-Barboza D*, Park E,* Sassenfeld R, Winder J, Smith GB, Valles-Rosales D, Delgado E, Park YH. 2021. Rapid, Simple, Low-Cost Fluorescence Detection of Escherichia coli Using 3D-Printed Smartphone-Based Device. Rojas-Barboza D*, Park E,* Sassenfeld R, Winder J, Smith GB, Valles-Rosales D, Delgado E, Park YH. 2021. Rapid, Simple, Low-Cost Fluorescence Detection of Escherichia coli Using 3D-Printed Smartphone-Based Device. International Journal of Agricultural and Biological Engineering, 14(3), 189-193.
16. Delgado, E., Alvarado-González, Ó*., Medrano-Roldán, H., Rodríguez-Miranda, J., Carrete-Carreón, F., Reyes-Jáquez, D. 2020. Effect of extrusion temperature, moisture and sunflower oil content on the functional properties and digestibility of bovine cattle feeds. Abanico Veterinario 10, 1-10.
17. Rojas-Barboza D*, Park E,* Sassenfeld R, Winder J, Smith GB, Valles-Rosales D, Delgado E, Park YH. 2021. Rapid, Simple, Low-Cost Fluorescence Detection of Escherichia coli Using 3D-Printed Smartphone-Based Device. Rojas-Barboza D*, Park E,* Sassenfeld R, Winder J, Smith GB, Valles-Rosales D, Delgado E, Park

YH. 2021. Rapid, Simple, Low-Cost Fluorescence Detection of Escherichia coli Using 3D-Printed Smartphone-Based Device. International Journal of Agricultural and Biological Engineering, 14(3), 189-193.

18. Matthews, A.*, Ulery, A., Rogus, S., Phillips, G., Delgado E. 2020. Heavy metal content of produce grown in San Juan County (New Mexico, USA). Journal of Environmental Science and Health, Part B. 55(10), 889-897. https://doi.org/10.1080/03601234.2020.1794220.
19. Delgado E, Gamero-Barraza G*, Flores-Rosas W, Valles-Rosales DJ, Medrano-Roldán H, Reyes-Jáquez D. 2020. Effect of lipids content and process parameters on the physicochemical, rheological, calorimetric and structural properties of an extruded canine food. Animal Nutrition and Feed Technology, 19, 455-469. DOI: 10.5958/0974-181X.2019.00042.8.
20. Flores N, Delgado E, Walker S, Rojas-Contreras J, Pámanes-Carrasco G. 2020. Effect of water stress on functional and marketable properties of roasted Big Jim chili pepper (Capsicum annum L.) in Southern USA. Acta Agricola y Pecuaria, 6(1), 1-8.
21. Quintero JQ, Velazquez V, Corrales-García LL, Torres JD, Delgado E, Ciro G, Rojas J. 2020. Use of plant proteins as microencapsulating agents of bioactive compounds extracted from annatto seeds (Bixa orellana L.). Antioxidants. Accepted for publication.
22. Ordoñez-Quintana, E., Salmeron, I., Chavez-Flores, D., Ramos, V., Gutierrez, N., Morales-Oyervides, L., Delgado, E., Kwofie, E., Ngadi, M., Perez-Vega, S.B. 2020. Supercritical and subcritical extraction of ursolic acid and polyphenols from apple pomace: Effect of variables on composition and antioxidant capacity. Journal of Food Processing and Preservation, 44(1), e14296. https://doi.org/10.1111/jfpp.14296
23. Delgado, E., Valverde-Quiroz, L. , Lopez D., Cooke P., Valles-Rosales D., Flores, N. 2019. Characterization of Soluble Glandless Cottonseed Meal Proteins Based on Electrophoresis, Functional Properties and Microscopic Structure. Journal of Food Science.
24. Chimimba, Delgado, E., J., Pratt, R., Cuellar,M. 2018. Quality parameters of Masa and Tortillas Produced from Blue Maize (Zea mays sp. mays) Landraces. Journal of Food Science. Journal of Food Science, 84(2), 213-223.
25. Cuj-Laines, R*., Hernández-Santos, B., Reyes-Jaquez, D., Delgado, E., Juarez-Barrientos, J.M., Rodriguez-Miranda, J. 2018. Physicochemical properties of ready-to-eat extruded nixtamalized maize based snacks enriched with grasshopper. International Journal of Food Science & Technology, 53, 1889-1895. DOI:10.1111/ijfs.13774.
26. Molero, L*., Campos, L., Sosa, L., Mao, Y., Flores, N., Delgado, E., Lozano, K. 2018. Development and Characterization of Glandless Cottonseed Meal/Pullulan Fine Fiber Mats. Archives of Nanomedicine 1(4), 75-79.
27. Chiquiní – Medina, R.A., de la Cruz Castillo-Águilar, C., Hernández-Sánchez, D., Torres-Hernández, G., Delgado Licon, E., 2018. Alfalfa (Medicago sativa) cultivada en Campeche, Mexico y su integración local en la alimentación de corderos en confinamiento. Agroproductiva 11, 69 – 74.
28. Farias-Cervantes, V., Chavez-Rodriguez, A., Delgado-Licon, E., Aguilar, J., Medrano-Roldan, H., Andrade-Gonzalez, I. 2016. Effect of spray drying of agave fructans, nopal mucilage and aloe vera juice. Journal of Food Processing and Preservation, 41, 1-8. ISSN 1745-4549. doi:10.1111/jfpp.13027,
29. Farias-Cervantes, V.S, Delgado-Licon, E., Solis-Soto, A., Medrano-Roldan, H. and Andrade-Gonzalez. 2016. Effect of spray drying temperature and agave fructans concentration as carrier agent on the quality properties of blackberry powder. International Journal of Food Engineering (IJFE), 12, 793-803.
30. Rodríguez-Miranda, J., Reyes-Jáquez, D., Delgado, E., Ramirez-Wong, B., Esparza-Rivera, J. R., Solís-Soto, A., Vivar-Vera, M. A., Medrano-Roldán, H. 2016. Partial substitution of bean (Phaseolus vulgaris) flour for fishmeal in extruded diets for rainbow trout (Oncorhynchus mykiss): Effects on yield parameters. Iranian Journal Fisheries Sciences 15(1), 206-220.
31. Ortegqa-Valdez, K, Esparza-Rivera, J.R., Ibarra-Alvarado, M., Medrano-Roldan, H., Delgado-Licon, E., Solis-Soto, A. 2016. Stability and texture of goat meat restructurates added with inuline and gelified under cold temperature. Interciencia, 40(8):576-580
32. Navarro Cortez, R.O., Gomez-Aldapa, C. A., Aguilar-Palazuelos, E., Delgado-Licon, E., Castro Rosas, J., Hernandez-Avila, J., Solis-Soto, A., Luz Ochoa-Martinez, A. and Medrano-Roldan, H. 2016. Blue corn (Zea mays L) with added orange (Citrus sinensis) fruit bagasse: novel ingredients for extruded snacks. CyTA-Journal of Food.

33. Araiza-Rosales, E.E., Delgado-Licon, E., Carrete-Carreón, F.O., Medrano-Roldan, H., Solís-Soto, A., Rosales-Serna, R. and Haubi-Segura, C.U. 2015. Fermentative and nutritional quality of maíz silage complemented with Apple and molasses. Ecosistemas y Recursos Agropecuarios, 2(6), 255-267.
34. Rodríguez-Miranda J., Ramírez-Wong B., Vivar-Vera M. A., Solís-Soto A., Gómez-Aldapa C. A., Medrano-Roldan H and Delgado E. 2014. Effect of bean flour concentration (Phaseolus vulgaris L.), moisture content and extrusion temperature on the functional properties of aquafeeds. Revista Mexicana de Ingenieria Química 13(3), 649-663.
35. Rodríguez-Miranda J., Gomez-Aldapa C. A., Castro-Rosas J., Ramírez-Wong B., Vivar-Vera M.A., Morales-Rosas I., Medrano-Roldan I., Delgado E. 2014. Effect of extrusion temperature, moisture content and screw speed on the functional properties of aquaculture balanced feed. Emir. Journal of Food and Agriculture. 2014. 26 (8): 659-671.
36. Reyes Jáquez D., Casillas F., Flores N., Cooke P., Delgado Licon E., Solís Soto S., Andrade González I., Carrete Carreón F.O., Medrano Roldán H. 2014. Effect of glandless cottonseed meal content on the microstructure of extruded corn-based snacks. Advances in Food Sciences 36(3): 125 – 130.
37. Araiza-Rosales, E*., Delgado-Licon, E., Carrete-Carreón, F. O., Medrano-Roldán, H., Solís-Soto, A., Murillo-Ortiz, M., Haubi-Segura, C. 2013. In situ ruminal degradability and in vitro digestibility of silages of maize and apple waste added with molasses. Avances en Investigación Agropecuaria, 17, 76-96.
38. Reyes-Jáquez, D., Casillas, F., Flores, N. Andrade-González, I., Solís-Soto, A., Medrano-Roldán, H., Carrete, F., Delgado, E. 2012. The Effect of Glandless Cottonseed Meal Content and Process Parameters on the Functional Properties of Snacks during Extrusion Cooking. Food and Nutrition Sciences 3, 1716-1725.
39. Rodríguez-Miranda J., Delgado-Licon E., Hernández-Santos B., Reyes-Jaquez D., Aguilar-Palazuelos E., Medrano-Roldan H., Navarro-Cortez R. O., Castro-Rosas J. and Gómez-Aldapa, C. A. 2012. The effect of pregelitinized potato starch on the functional properties of an extruded aquafeed. Journal of Animal Production Advances 2(7), 335-344.
40. Delgado, E., Vences-Montano, M.I., Rocha-Guzman, N., Rodriguez-Vidal, A., Herrera-Gonzalez, S.M., Medrano-Roldan, H., Solis-Soto, A., 2012: Inhibition of the growth of rats by extruded snacks from bean (Phaseolus vulgaris) and corn (Zea mays). Emirate Journal of Food and Agriculture 24 (3), 255 -263.
41. Rodríguez-Miranda J., Delgado-Licon E.,Ramírez-Wong B., Solís-Soto A., Vivar-Vera M. A., Gómez-Aldapa C. A. and Medrano-Roldán H. 2012. Effect of Moisture, Extrusion Temperature and Screw Speed on Residence Time, Specific Mechanical Energy and Psychochemical Properties of Bean Four and Soy Protein Aquaculture Feeds. Journal of Animal Production Advances 2(1): 65-73.
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43. Atienzo-Lazos M, Delgado E, Ochoa-Martínez A, Aguilar-Palazuelos E, Martínez BF, Ramirez-Wong B, Gallegos-Infante A, Medrano-Roldan H and Solis-Soto A. 2011. Effect of Moisture and Temperature on the Functional Properties of Composite Flour Extrudates from Beans (Phaseolus vulgaris) and Nixtamalized Corn (Zea mays). Journal of Animal Production Advances 1(1): 9-20.
44. Reyes-Jáqueza, D., Vargas-Rodrígueza, J., Delgado-Licona*, E., Rodríguez-Mirandaa, J., Araiza-Rosalesa, E.E., Andrade-Gonzálezb, I., Solís-Sotoa A., Medrano-Roldan, H. 2011. Optimization of the extrusion process temperature and moisture content on the functional properties and In vitro digestibility of a bovine cattle feed made out of waste bean flour. Journal of Animal Science Advances 1 (2), 100-110.
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Received grants over Most resent funded grant.

Title	Year	Funding Agency	US Dollars (approx.)
Training of Next Generation Workforce for Smart Food Science and Agricultural Technology in the Digital Era (WorkFoS-Ag) (Co-PI – $49,258)	2021 -2024	USDA	500,000
Food Safety: Point-of-Production Chile Screening for Food-Borne Pathogens	2019-2021	New Mexico Chile Association	91,281
Interdisciplinary Approach to Transforming Agroindustrial By-products into Value-Added Products (**PI**)	2019	AES Competitive Operations Grants	$28,000

ALFA-loT ALliance For Smart Agriculture in the Internet of Things Era (**CO-PI**).	2018-2022	USDA- Hispanic Serving Institutions (HSI)	295,000
Building Interdisciplinary Multi-state Research and Extension to Develop the Emerging Jujube Industry in the United States (**Co-PI**)	2017-2020	USDA-NIFA	48,000
Application of Molecular Fluorescence Spectroscopy for *In situ*, Real-time Detection of Food Borne Pathogens (**PI**)	2018-2019	NMSU Impact-grant,	39,500
Food Bioengineering Technology of Agroindustrial Products **(PI)**	2016-2021	Hatch-Proposal- US Department of Agriculture	27,500
Develop an Extruded Product for Aquaculture (Shrimp) Feed (**PI**)	2016	Cotton Incorporated	8,000
Agricultural Experiment Station Graduate Research Award **(PI)**	2016	NMSU Agricultural Experiment Station	40,000
Utilization of Food Processing Technology to Add Value to Cotton as a Food Crop (**Co-PI**)	2015	Cotton Incorporated	23,000
Southwest Agriculture and Food Security Education: Preparing Future Leaders for a Safe and Secure U.S. Food Supply System (SAFE) **(Co-PI)**	2014-2019	US Department of Agriculture-HSI with Texas State Unversity NMSU= $137,748	998,856
Total funding received between 2014 -2019			**$2,099,137**