

Luis Fernando Delgado Muñoz

STATISTICAL DATA ANALYST

Cali, Colombia

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I am a dedicated and passionate MSc. Agro-industrial engineer with expertise in data handling, processing, and analytics of agronomic and livestock sciences. My professional journey spans as a Data Analyst in the Cassava Breeding Program at CIAT and a University Professor. I am driven by my commitment to combining data-driven approaches with breeding population-based studies of economical traits in agriculture.

As an educator, I focus on empowering students in data handling, processing, analytics, and gaining insights from data, fostering the next generation of data-driven leaders. Proficient in R and Python, I efficiently manipulate and analyze large datasets, develop statistical models, create compelling visualizations, and effectively communicate findings to diverse stakeholders.

Current Appointments

The Alliance Bioversity International and CIAT

STATISTICAL DATA ANALYST - CASSAVA PROGRAM. [🔗](#)

Palmira, Colombia

Jul 2022–Present

Unidad Central del Valle

VISITING PROFESSOR, INTERNATIONAL SUSTAINABLE AGRICULTURE TRAINING COURSE -R PROGRAMMING MODULE. [🔗](#)

Online

Aug 2022–Oct 2022

The Alliance Bioversity International and CIAT - Manpower group

RESEARCH ASSISTANT FELLOW

Palmira, Colombia

Dec 2020–Jun 2022

Unidad Central del Valle.

PART TIME PROFESSOR, ENGINEERING FACULTY, AGROPECUARY ENGINEERING PROGRAM [🔗](#)

Tulúa, Colombia

Aug 2020–Present

Universidad Nacional de Colombia Sede Palmira.

PART TIME GRADUATE PROFESSOR, ENGINEERING FACULTY, PHD PROGRAM: FOOD SCIENCE AND TECHNOLOGY [🔗](#)

Palmira, Colombia

Feb 2020–July 2023

Universidad Nacional de Colombia Sede Palmira.

STATISTICAL DATA ANALYST, PROYECTO INCREMENTO DE LA COMPETITIVIDAD SOSTENIBLE EN LA AGRICULTURA DE LADERA EN TODO EL DEPARTAMENTO, VALLE DEL CAUCA, OCCIDENTE.

Palmira, Colombia

Dec 2021–Feb 2022

Education

Universidad Nacional de Colombia Sede Palmira

AGROINDUSTRIAL ENGINEERING

Palmira, Colombia

2015

Universidad Nacional de Colombia Sede Palmira

MSc. AGRICULTURAL SCIENCES

Palmira, Colombia

2019

- Best master Thesis Award Laureate (2019)

- **Thesis:** Caracterización de oleorresinas de ají Tabasco y Cayenne bajo diferentes niveles de nitrógeno y humedad en el suelo [🔗](#)

Research Experience

The Alliance Bioversity International and CIAT

STATISTICAL DATA ANALYST, CASSAVA PROGRAM

Palmira, Colombia

Jul 2022–Present

- Curation and analysis of historical data in the past 50 years from the Cassava Program.
- Calculating the genetic gain for all the breeding populations the Cassava Program has created.
- Develop the standard analysis pipelines for yield trial data, quality data and genotypic data.

The Alliance Bioversity International and CIAT

RESEARCH ASSISTANT FELLOW, QUALITY POSTHARVEST LAB, CASSAVA PROGRAM

Palmira, Colombia

Dec 2020–Jun 2022

- Provide support for processing raw roots, textural analysis and optimal cooking time evaluations of breeding populations of cassava program
- Trained panellist staff on sensory attributes of boiled cassava roots and constitute the first sensory panel of breeding cassava program.
- Provide support for data clean, curation, statistical analysis and modelling of RTB Foods project data derived

Universidad Nacional de Colombia Sede Palmira

STATISTICAL DATA ANALYSIS

Palmira, Colombia

Dec 2021–Feb 2022

- Statistical analysis of Hass avocado demonstration plots in Roldanillo municipality.
- Statistical analysis of blackberry crop demonstration plots located in the municipality of Pradera

Teaching and Supervision

Part time Professor

UNIDAD CENTRAL DEL VALLE

- Engineering faculty, Agropecuary engineering program, courses included: Research tools I and Experimental design with R programming

Tulúa, Colombia

Aug 2020–Present

Part time Professor

UNIVERSIDAD NACIONAL DE COLOMBIA SEDE PALMIRA

- Engineering and Administration faculty, PhD program: Food science and Technology, courses included: Analysis and Experimental design

Palmira, Colombia

Feb 2020–Jul 2023

Additional training and professional development

2023 **Data Bootcamp for Genomic Prediction in Plant Breeding** (University of Minnesota)

2022 **Genomic Prediction and Selection** (NextGen Cassava Breeding Project)

2021 **Phenotypic modelling of multi-environment trials** (Wageningen University)

2021 **Complete Python Developer in 2021: Zero to Mastery** (Udemy)

2021 **Design of experiments for optimization** (Udemy)

Skills

Analytical	Programming	Software/Tools
Phenotype database curation/management	R (advanced)	Git
Univariate/multivariate data analysis	Python (intermediate)	GitHub
Linear mixed models	Quarto	Shiny
Reproducible research	Linux (intermediate)	LaTeX

Selected presentations

- 2017 **Agro-industrial trends in the uses of capsicum species**, Invited to speak at the 1st Ibero-American Congress on Agrifood Sciences, SENA

Publications

2023

Meghar, K., Tran, T., **Delgado, L.F.**, Ospina, M.A., Moreno, J.L., Luna, J., Londono, L.F., Dufour, D., Davrieux, F.(2022). *Hyperspectral imaging for the determination of relevant cooking quality traits of boiled cassava*. J Sci Food Agric. <https://doi.org/10.1002/jsfa.12654>

2022

Vásquez Amariles, H., Saavedra Ospina, R., Guerrero Cobos, D., Marín Beitia, E., Escobar Hernández, G., Cifuentes Gutiérrez, C.A., Caicedo Vallejo, A.M., Mosquera Escobar, L.E., **Delgado Muñoz, L.F.** (2022). **Opciones tecnológicas para mejorar las prácticas agronómicas en el cultivo de aguacate Hass en zona de ladera, Colombia: Parcela demostrativa de aguacate Hass establecida en zona de ladera, Colombia**. Bogotá: Universidad Nacional de Colombia. <https://repositorio.unal.edu.co/handle/unal/82746>

Vásquez Amariles, H., Guerrero Cobos, D., Castro López, V., Gutiérrez Pineda O., Gutiérrez Pineda Caicedo Vallejo, A.M., Mosquera Escobar, L.E., **Delgado Muñoz, L.F.** (2022). **Opciones tecnológicas para mejorar las prácticas agronómicas en el cultivo de mora en zona de ladera, Colombia: Parcela demostrativa de mora establecida en zona de ladera**. Universidad Nacional de Colombia. <https://repositorio.unal.edu.co/handle/unal/82722>

References

- Thierry Tran, PhD. Lead cassava postharvest quality laboratory CIAT. Phone: +4450000 ext: 3063 Email: thierry.Tran@cgiar.org
- Luis Fernando Londoño, PhD(c), MSc. Senior cassava postharvest quality laboratory coordinator CIAT. Phone: +4450000 ext: 3063 Telephone: +57 310 4315682 Email: L.Londono@cgiar.org
- Daniel Gerardo Cayón Salinas, PhD. Professor Universidad Nacional de Colombia Sede Palmira. Phone: +572 2868888 Ext.: 35132-3513 Telephone: +57 315 2489251 Email: dgcayons@unal.edu.co