

Part A. PERSONAL INFORMATION

CV date	16 May 2023
----------------	-------------

First and Family name	Workineh, Abebe Zeleke		
Social Security, Passport, ID number	EQ0078933	Age	51
Researcher numbers	Orcid code	0000-0001-7577-3540	
	Scopus Author ID	24280961400	

A.1. Current position

Name of University/Institution	Ethiopian Institute of Agricultural Research		
Department	Food Science and Agricultural Engineering		
Address and Country	P.O. Box 2003, Addis Ababa		
Phone number	+251 983 680300	E-mail	workineh09@gmail.com
Current position	Senior Researcher	From	April 2018 to date
Espec. cód. UNESCO			
Palabras clave			

A.2. Education

PhD	University	Year
Ph.D	University of Valladolid, Spain	2015
Master of Science	Haramaya University, Ethiopia	2006

SPECIAL TRAININGS

R&D in Agricultural Engineering Technologies. Training organized by Institute of Agric. Engineering, Agric. Research Org., Israel, 3rd Nov. to 26th Nov., 2009.

Innovation and R&D Management for Rural Technology. Course organized and managed by Ethiopian Science & Technology, Ethiopia, 22nd to 26th Mar, 2007.

Technology for Rural Development. Training organized by Ethiopian Society of Mechanical Engineers, Addis Ababa, Ethiopia, 2nd to 7th Aug., 2004.

Appropriate Mechanization and Water Management for Dryland Agriculture. Bogor Agricultural University, Bogor, Indonesia, 9th Feb to 20th Mar, 2004.

Planning Monitoring & Evaluation of Agricultural Research. Ethiopian Agricultural Research Organization, Ethiopia. 17th to 20st Jan., 2001.

OTHER SHORT TERM TRAININGS

Fellowship program for capacity building for food processing technology in Ethiopia. International cooperation of rural community cooperation, Republic of Korea, 29/04/19-7/05/19.

Soft Skill Training (Critical thinking and work place stress management, interpersonal skill, personal effectiveness, personal effectiveness and time management, giving and receiving feedbacks, and conflict management), ATA Ethiopia, 15/04/18-19/04/18.

Food safety management system development & implementation (ISO 22000:2018) and Quality Management system development & implementation (ISO 9001:2015), BLESS Ethiopia. 28/11/19-6/12/19.

Rheological characterization of food carbohydrate systems. Training organized by University of Valladolid, Departamento de Ingeniería Agrícola y Forestal, Palencia, 19th December, 2014.

La gestión de la seguridad alimentaria por las administraciones públicas. Training organized by University of Valladolid, Departamento de Ingeniería Agrícola y Forestal, Palencia, 20th March, 2013.

Agentes texturizantes en la industria agroalimentaria. Training organized by University of Valladolid, Departamento de Ingeniería Agrícola y Forestal, Palencia, 25-26th April, 2013.

FSTA en Plataforma OvidSP. Organized by Wolster Kluwer and University of Valladolid, 9 January 2014, Palencia Spain.

A.3. JCR articles, h Index, thesis supervised...

- PhD thesis co-supervised: 1 finished and 3 under way.
- M.Sc thesis co/supervised: 3 finished and 1 underway.
- Citation 180 , h index 6 (**Scopus**)

Part B. CV SUMMARY (max. 3500 characters, including spaces)

Under the Ethiopian Institute of Agricultural Researches and the Ethiopian Ministry of Agriculture

- Reduction of postharvest loss and shelf life improvement
- Characterization of indigenous food products and enhance their utilization
- Study and improve the traditional food processing for energy and time and saving as well as for nutrient loss reduction.
- Development of alternative value added products
- Planning, conducting, leading, monitoring and evaluation of small holder focused agricultural research projects related to Agricultural Mechanization and processing.
- Collaborating with Governmental and Non-governmental Organizations, International Agricultural Research Centers, International organizations.
- Promoting postharvest handling and food processing technologies for adoption by small holder farmers and entrepreneurs.
- Planning, conducting, leading and monitoring and evaluation of assessment and surveys works
- Offering postharvest handling and processing trainings for rural and urban development agents, regional and federal agricultural bureau subject matter specialists and experts.
- Participation and playing leadership role in the development of short and long term national agricultural research strategies for food science and nutrition research in Ethiopia.

Ph.D. Research

- Exploring the intrinsic characteristics of tef [*Eragrostis tef* (Zucc.) Trotter] grain for industrial scale processing and its application for formulation of different products.

Postdoctoral Researcher

- In the PROCEREALtech research group, at Department of Agricultural and Forest Engineering, University of Valladolid, under Professor Felicidad Ronda. I was involved in the research project entitled "TREATMENT OF NEW GRAINS OF HIGH NUTRITIONAL VALUE WITH MICROWAVE RADIATION. MOLECULAR BASES OF THE TECHNOLOGY-FUNCTIONAL CHANGES INDUCED FOR THE IMPROVEMENT OF GLUTEN FREE PRODUCTS (TECHGFREE). The main activities were improving the quality of gluten-free products, design and study of foods based on cereals and / or derivatives with beneficial health effects, Study of the physical, chemical, thermal and nutritional properties of cereal-based products and their constituents and study of new technologies for the modification of physical properties.

Part C. RELEVANT MERITS

C.1. Publications (including books)

Articles in refered journals

- **Abebe, W.** Náthia Neves, G. Calix-Rivera, C. Villanueva, M. and Ronda, F. 2023. Lipase Inactivation Kinetics of Tef Flour with Microwave Radiation and Impact on the Rheological Properties of the Gels Made from Treated Flour. *Molecules*, 28(5):2298. DOI: 10.3390/molecules28052298.
- Tolessa, Y., Admasu, S., **Abebe, W.**, & Ronda, F. (2022). Physicochemical, Morphological, Thermal, and Rheological Properties of Native Starches Isolated from Four Cultivars of Anchote (*Coccinia abyssinica* (Lam.) Cogn.) Tuber. *Gels*, 8(9). <https://doi.org/10.3390/gels8090591>
- Kore. T. and **Abebe, W.** and Getachew, P. 2022. Optimization of cooking, textural, and sensorial qualities of macaroni supplemented with tef (*Eragrostis tef* (Zucc.) Trotter) and chickpea flours. *International Journal of Food Properties* 25(1):2254-2266. DOI:10.1080/10942912.2022.2130941

- Yegrem, L., Mengistu, D., Legesse, O. and **Abebe, W.** 2022. Nutritional compositions and functional properties of New Ethiopian chickpea varieties: Effects of variety, grown environment and season. *International Journal of Food Properties*, 25 (1), 1485-1497 .
- Villanueva, M., **Abebe, W.**, Pérez-Quirce, S., Ronda, F. 2022. Impact of the variety of tef [*Eragrostis tef (Zucc.) Trotter*] on physical, sensorial and nutritional properties of gluten-free breads. *Foods*. 11, 1017.
- Villanueva, M., **Abebe, W.**, Collar, C. and Ronda, F. 2021. Tef [*Eragrostis tef (Zucc.) Trotter*] variety determines viscoelastic and thermal properties of gluten-free dough and bread quality. *LWT - Food Science and Technology*, 135, 110065.
- Yigerem, L., Yimam, M, Kore. T. and **Abebe, W.** 2019. Comparative analysis of proximate and mineral composition of released Tef (*Eragrostis tef (Zucc.)Trotter*) varieties in Ethiopia. *Academic Research J. of Agric. Sc. and Res.* 7(6), 372-379, DOI:10.14662/ARJASR2019.110.
- Kore. T. and **Abebe, W.** and Getachew, P. 2018. The Effect of Blending Ratio of Durum Wheat, Tef [*Eragrostis Tef (Zucc) Trotter*] and Chickpea on Nutritional Composition and Sensory Attributes of Macaroni. *Academic Research J. of Agric. Sc. and Res.* 6(7):433-442, DOI: 10.14662/ARJASR2018.072.
- Assefa Y., Admassu, S., **Abebe, W.** Ronda, F.. 2018. Effect of Mill Type and Mechanical Kneading Conditions on Fermentation Kinetics of Tef Dough during Injera making and Phytate to Mineral Molar Ratio of Injera. *Research & Reviews: J. of Food Sc. and Tech.* 7 (2): 9-19.
- Assefa Y., Admassu, S., Villanueva, M., **Abebe, W.** Ronda, F. 2018. The effect of mechanical kneading and absit preparation on tefinjera quality. *African J.l of Food Sci.*, 12(10) pp. 246-253, DOI: 10.5897/AJFS2018.1722.
- Assefa Y., Admassu, S., Villanueva, M., **Abebe, W.** Ronda, F.. 2018. Influence of milling type on tef injera quality. *Food Chemistry* 266: 155–160.
- **Abebe, W.** 2017. Optimum disc type and operating speed of a pneumatic precision planter for acala type cotton planting. *Ethiopian Journal of Sciences and Sustainable Development* 4:2, 87-97.
- **Abebe, W.** Ronda, F., Villanueva, M., and Collar, C.. 2015. Effect of tef [*Eragrostis tef (Zucc.) Trotter*] grain flour addition on viscoelastic properties and stickiness of wheat dough matrices and bread loaf volume. *European Food Research and Technology*. DOI 10.1007/s00217-015-2476-0.
- Ronda, F., **Abebe, W.**, Perex-Quierce, S., Collar, C. 2015. Suitability of tef varieties in mixed wheat flour bread matrices: a physico-chemical and nutritional approach. *Journal of Cereal Science* 64, 139-146.
- **Abebe, W.** and Ronda, F., 2015. Flowability, moisture sorption and thermal properties of [*Eragrostis tef (Zucc.) Trotter*] grain flours. *Journal of Cereal Science* 63, 14–20.
- **Abebe, W.**, Ronda, F. and Collar, C. 2015. Impact of Variety Type and Particle Size Distribution on Starch Enzymatic Hydrolysis and Functional Properties of Tef Flours. *Carbohydrate Polymers* 115, 260–268.
- **Abebe, W.** and Ronda, F., 2014. Rheological and Textural Properties of Tef [*Eragrostis tef (Zucc.) Trotter*] Grain Flour Gels. *Journal of Cereal Science*, 60, 122-130.
- **Abebe, W.** 2013. Investing on Agricultural Mechanization: A Means to Realize the Crop Production Target in the Growth and Transformation Plan (GTP) of Ethiopia. *Ethiopian Journal of crop Sciences*, 3:1, 1-12.
- **Abebe, W.**, Bultossa, G and Lemmessa, F. L. 2011. Flour Starch Properties of of Six Ethiopian Durum Wheat (*Triticum turgidum*) Varieties Grown at Debre Zeit, Ethiopia. *East African Journal of Applied Sciences and Technology*, 2:1.
- **Abebe, W.**, Bultossa, G and Lemmessa, F. L. 2011. 2008. Physicochemical and Rheological Properties of Six Ethiopian Durum Wheat (*Triticum turgidum*) Varieties Grown at Debre Zeit Suitable for Pasta Making. *Journal of Food Science and Technology*, 45:3.

Book Chapters

- **Abebe, W.** Kore, T. Bultosa, G. And Ronda, F. 2022. Tef Grain Utilization and Processing. In: Assefa, K., Chanyalew, S., Girma, D., and Taddele, Z. *Principles and Practices of Tef Improvement*. Ethiopian Institute of Agricultural Research and Agricultural Transformation Institute, Addis Ababa Ethiopia. Pp: 345-365.

- Alemu, D., **Abebe, W.**, Getenet, B., Abebe, F. and Kebede, L. 2022. Tef Mechanization. . In: Assefa, K., Chanyalew, S., Girma, D., and Taddele, Z. Principles and Practices of Tef Improvement. Ethiopian Institute of Agricultural Research and Agricultural Transformation Institute, Addis Ababa Ethiopia. Pp: 323-341.

C.2. Research projects and grants

GRANTS

- Beca MEC-AECID. Ministerio de Asuntos Exteriores y de Cooperación (1-10-2011 al 30-09-2020). Resolución del 10 de Diciembre de 2010 de la Presidencia de AECID (BOE 27 de Diciembre de 2010) .Awarding entity: Asociación Española de Cooperación Internacional para el Desarrollo 01/10/2011-30/09/2014, Entity where activity was carried out: University of Valladolid.
- Food Processing Technology Transfer in Ethiopia. A project aimed at establishing specialized tef processing research laboratory being executed at Debre Zeit Agricultural Research Center together with the Korean Rural Community Corporation (KRC) (2017-2020). 1,391, 304 USD -as a main local counterpart (on-going).
- Different annual to three year research budgets allocated by the Ethiopian Government under the Food Science and Nutrition Directorate of the EIAR-as a PI and team member.
- Development of value added food products from Ethiopian agricultural produces. (2017-2020). Project financed by the Agricultural Growth Program II- under the World Bank 65,000 USD- as a PI and focal person.
- Promotion of tie-ridging technology in selected dry areas of Amhara and Tigray Regions. Project financed by the FAO-Ethiopia. Project code: FAO/DRUU/LOA 117/10, 50,000 USD. (completed 2010)-as PI and project focal person.
- **Name of the project:** Ref: AGL2012-35088. MEJORA NUTRICIONAL Y FUNCIONAL DE PANES SIN GLUTEN: ADICIÓN DE BETAGLUCANOS DE DIFERENTES ORÍGENES Y PESOS MOLECULARES ATENDIENDO A LAS DECLARACIONES DE SALUD APROBADAS POR EFSA.
Name principal investigator: Felicidad Ronda Balbás
Entity where project took place: Universidad de Valladolid
City of entity: Palencia, España
Funding entity or bodies: Ministerio de Economía y Competitividad
Start-End date: 01/01/2013 - 31/12/2015
Total amount: 76.050
Type of participation: Personal Investigador en Formación
Geographical area: Nacional

C.3. Other achievements

PROFESSIONAL EXPERIENCE

March 2018- to date. Senior Researcher, Food Science Agricultural ENgineering Research Directorate- Ethiopian Institute of Agricultural Research.

February 2021-February 2023. Postdoctoral Researcher, PROCEREALtech Research Group, Higher School of Agricultural and Forest Engineering, University of Valladolid, Spain.

April 2015-March 2018. Researcher II, Food Science Agricultural ENgineering Research Directorate- Ethiopian Institute of Agricultural Research

2008 - Sept. 2011 Director, Agricultural Mechanization Research Directorate- Ethiopian Institute of Agricultural Research

2006 - 2008 Research Staff- Ethiopian Agric. Research Institute
• Research in the National Agricultural Mechanization, Food Science and Postharvest Technology Research Department

2002 - 2004 Ethiopian Agric. Research Institute- Department Coordinator

- Research in the Agricultural Mechanization, Food Science and Postharvest Technology Department.

2001 - 2002 Ethiopian Agric. Research Institute- Research Staff

- Research in the Agricultural Mechanization, Food Science and Postharvest Technology Department.

1998-2001 Elfora Agro-Industries Private Ltd. Company - Expert

- Processing livestock products and horticultural crops both for local and export market.

1992-1998 Ethiopian Livestock Development and Meat Processing Corporation- Junior expert and Ag. Engineer

TEACHING

- Engineering properties of Agricultural Products (M.Sc. Program, Agricultural Machinery Engineering, Adama Science and Technology University, Ethiopia)
- Agricultural processing Engineering (B.Sc. Program, Agricultural Engineering, Adama Science and Technology University, Ethiopia)
- Food texture (Ph.D. Program, Food Engineering, Institute of Technology, Addis Ababa University)

OTHER ACTIVITIES AND MEMBERSHIP OF SCIENTIFIC SOCIETY

- August 2010 - September 2011, Management Board Member for Coffee Processing and Warehouse Enterprise (the biggest export coffee processing plant in Ethiopia)
- December 2014 - 2015, Member Asociación de Científicos y Tecnólogos de Alimentos de Castilla y León.
- December 2020- to date, Founding member of Ethiopian Society of Agricultural Engineers
- Reviewed a number of manuscripts for local and international journals.
- Participated and made presentations in a number of local and international conferences and workshops. Published various abstracts in books and articles in the workshop proceedings.