



TAGEM
R&D AND INNOVATION

FIELD CROPS CENTRAL RESEARCH INSTITUTE/ ANKARA

Muhsin İbrahim AVCI, MS

Agricultural Engineer

EDUCATION

- PhD** Ankara University
2019-Present Department of Field Crops
- MS** University of Florida
2016-2018 Agronomy Department
- Bachelor's Degree** Çukurova University
2010-2014 Department of Field Crops

LANGUAGE English YDS 96, Yökdil 100

CAREER

- 2018-Present** Researcher (Wheat Breeder) - Field Crops Central Research Institute, Department of Plant Breeding and Genetics, Wheat Breeding - Ankara/Turkey

ABOUT ME

I was born in Erzurum in 1992. In 2014, I graduated from Çukurova University, Faculty of Agriculture. During the 2011-2012 academic year, I studied at the Warsaw University of Life Sciences with the Erasmus student exchange program. I completed my Master's Degree University of Florida Agronomy Department in 2018. I have been working as an Agricultural Engineer at the Field Crops Central Research Institute since October 2018.

I work as a breeder in the continuous projects of "The Central Anatolia Bread Wheat Breeding Researches" and "The Central Anatolia Durum Wheat Breeding Researches" at the Field Crops Central Research Institute.

CONTACT



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■ **PROJECTS**

■ **Projects Conducted**

■ **Ongoing Projects**

1. Characterization of Some of Wheat (Triticum spp.) Genotypes in Terms of Drought Tolerance (Project Leader / 2022-2023)
2. The Central Anatolia Region Bread Wheat Breeding Research (Researcher / 2018-2022)
3. The Central Anatolia Region Durum Wheat Breeding Research (Researcher / 2018-2022)
4. Application of Linear Phenotypic Selection Index (LPSI) in Plant Breeding (Researcher / 2022-2024)
5. Determination of the Effect of Nitrogen Dose and Environment on Yield and Quality Traits of Some Local and Commercial Wheat Varieties (Researcher / 2021-2023)
6. Determination of Allelic Variation in Vernalization and Photoperiod Genes in Bread Wheat Genotypes (Researcher / 2020-2024)
7. National Winter Wheat Breeding Research (Researcher / 2018-2022)
8. International Winter Wheat Improvement Program (IWWIP) (Researcher / 2018-Present)



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■ **PUBLICATIONS**

■ **INTERNATIONAL ARTICLES AND PAPERS**

■ **Articles Published in International Journals**

1. Pradhan S, Babar MA, Robbins K, Bai G, Mason RE, Khan J, Shahi D, **Avci M**, Guo J, Maksud Hossain M, Bhatta M, Mergoum M, Asseng S, Amand PS, Gezan S, Baik B-K, Blount A and Bernardo A (2019) Understanding the Genetic Basis of Spike Fertility to Improve Grain Number, Harvest Index, and Grain Yield in Wheat Under High Temperature Stress Environments. *Front. Plant Sci.* 10:1481. doi: 10.3389/fpls.2019.01481
2. Pradhan, S., Babar, M. A., Bai, G., Khan, J., Shahi, D., **Avci, M.**, ... Kunwar, S. (2020). Genetic dissection of heat-responsive physiological traits to improve adaptation and increase yield potential in soft winter wheat. *BMC Genomics*, 21(1). doi: 10.1186/s12864-020-6717-7
3. Guo, J.; Khan, J.; Pradhan, S.; Shahi, D.; Khan, N.; **Avci, M.**; Mcbreen, J.; Harrison, S.; Brown-Guedira, G.; Murphy, J.P.; Johnson, J.; Mergoum, M.; Esten Mason, R.; Ibrahim, A.M.H.; Sutton, R.; Griffey, C.; Babar, M.A. Multi-Trait Genomic Prediction of Yield-Related Traits in US Soft Wheat under Variable Water Regimes. *Genes* 2020, 11, 1270.

■ **International Papers, Seminars, etc.**

1. **Avci M. I.**, Khan J., Shrestha S. P., Hossain M. M ., Akond M. , Babar A. M., Murphy P. Genetic mechanism that controls stay green in AGS2000/NC06-19896 doubled haploid population under high temperature stress conditions . Poster presented at: Improving Efficiency in Breeding Programs; 2016 Annual National Association of Plant Breeders; 2016 Aug 15-18; Raleigh, NC
2. Avci M. I., Khan J., Shrestha S. P., Hossain M. M ., Shahi D. , Rahman A., Babar A. M., Murphy P. Identifying the Genetic Loci Associated with Fruiting Efficiency and Yield Components in AGS2000/NC06-19896 DH Population Under Post Anthesis High Temperature Stress Conditions. Poster presented at: Managing Global Resources for a Secure Future; 2017 ASA, CSSA and SSSA International Annual Meetings; 2017 Oct 22-25; Tampa, FL
3. Khan J., Shrestha S. P. , **Avci M. I.**, Shahi D., Hossain M. M ., Rahman A., Babar A. M. Genetic Variability and Association Analysis in US Soft Wheat Panel for Fruiting Efficiency Under Post Anthesis Drought and Supplemental Irrigated Conditions. Poster presented at: Managing Global Resources for a Secure Future; 2017 ASA, CSSA and SSSA International Annual Meetings; 2017 Oct 22-25; Tampa, FL
4. Shrestha S. P., Khan J., **Avci M. I.**, Shahi D., Guo J., Rahman A., Babar A. M. Identifying Potential Avenues for Increasing Grain Number Under Post Anthesis Heat Stress Condition. Oral presentation at: Managing Global Resources for a Secure Future; 2017 ASA, CSSA and SSSA International Annual Meetings; 2017 Oct 22-25; Tampa, FL



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▪ NATIONAL ARTICLES AND PAPERS

▪ Articles Published in National Journals

▪ National Papers, Seminars, etc.

▪ OTHER PUBLICATIONS

▪ Ph.D. Thesis, Master Thesis, Reports, Books etc.

1. Identifying QTLs Related to Stay-Green, Yield and Yield Components in Wheat under Hot and Humid Environment – Master Thesis
2. Dev Paudel, Smit Dhakal, Saroj Parajuli, Laxman Adhikari, Ze Peng, You Qian, Dipendra Shahi, **Muhsin Avci**, Shiva O. Makaju, Baskaran Kannan, Chapter 38 - Use of quantitative trait loci to develop stress tolerance in plants, Plant Life Under Changing Environment, Academic Press, 2020, Pages 917-965, ISBN 9780128182048, <https://doi.org/10.1016/B978-0-12-818204-8.00048-5>
(<http://www.sciencedirect.com/science/article/pii/B9780128182048000485>)

▪ Membership, Training, Course, Meeting, Congress, Symposium and Other Activities

1. CIMMYT Proposal Development Course - June 24-26, 2019, Ankara / TURKEY
2. CIMMYT Basic Wheat Improvement Course - Jan 18 to May 31 2021 El Batán, Texcoco, México
3. CIMMYT Advanced Wheat Improvement Course Aug 2- Oct 1, 2021 El Batán, Texcoco, México
4. Climate Reality Leadership Corps Training, 24 Oct, 2021, Online Modality

▪ Awards and Scholarships

1. Turkish Government Scholarship for Graduate Studies Abroad (2014)
2. Paul Harris Travel Award – University of Florida (2016)
3. CIHEAM Scholarship for Advanced Course Predictive Breeding Tools for Intensive and Sustainable Production Under Climate Change Scenarios



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