



TAGEM
R&D AND INNOVATION

GAP INTERNATIONAL AGRICULTURAL RESEARCH AND
TRAINING CENTER/ DİYARBAKIR

BETÜL KOLAY, PhD

Agricultural Engineer

EDUCATION

- Assoc. prof**
- PhD** 2017-2021 Harran University
Graduate Scholl of Natural&Aplied Sciences
- MSc** 2004-2007 Harran University
Graduate Scholl of Natural&Aplied Sciences
- Bachelor's Degree** 1997-2001 Harran University
Faculty of Agriculture
- LANGUAGE** English YÖKDİL 58 / YDS 52

CAREER

- 2003-.... Researcher, GAP International Agricultural Research and Training Center - DİYARBAKIR
- 1996-2003 Agricultural Engineer, Şanlıurfa Province Directorate of Agriculture- ŞANLIURFA

ABOUT ME

She was born in 1978 in Şanlıurfa. In 2001, She graduated from Harran University, Faculty of Agriculture, soil department . In 2007, she completed her master's degree in Harran University, Graduate Scholl of Natural&Aplied Sciences, Department of Soil Science and Plant Nutrition. In 2021, she completed her PhD at Harran University, Graduate Scholl of Natural&Aplied Sciences, Department of Soil Science and Plant Nutrition.

She carried out many studies in the soil physics, soil tillage, soil improvement, organic fertilizers and agronomy.

CONTACT



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▪ **PROJECTS**

▪ **Projects Conducted**

1. Investigation The Effect of Using Sewage Sludge on Yield, Yield Components and Soil Structure of Grain Plants and Oil Seed Plants. (TAGEM, Project Leader)
2. The Effect Of Different Levels Of Leonardite On Wheat Yield And Some Yield Components And Soil Of Some Physical And Chemical Characteristics Of Soil Under Diyarbakır Conditions. (TAGEM, Project Leader)
3. Determination of Effect of Green Manure under Different Tillage Systems on Cotton and Maize yield, Yield Component and Soil Properties. (TAGEM, Project Leader)
4. Effects of Different Sowing Time, Soil Tillage Methods and Herbicides on Lentil Weed, Yield And Yield Components. (TAGEM, Project Leader)
5. Researching The Residue Management Methods After Wheat Harvest. (TAGEM, Project Leader)
6. The Effects of Narrow Row and Twin Row Cultivation Techniques on Yield, Yield Components and Some Soil Properties in Corn. (TAGEM, Project Leader)
7. Determination the Effects of Different Nitrogen Applications on Sweet Corn Yield and Yield Parameters by Fertigation Method. (TAGEM, Project Executive)
8. Determination the Potantial Toxic Element Scope and Plant Nutrient of Agricultural Soils in Diyarbakır, Batman, Şırnak Provinces, Creating Data Base and Mapping. (TAGEM, Project Executive)
9. Improvement of High Yield and Fiber Quality, Tolerant to Biotic and Abiotic Stress Factors of Domestic Cotton Genotypes by Using Classic and Molecular Breeding Methods. (TÜBİTAK, Project Executive)
10. Determination of susceptibility of verticillium dahliae kleb. that hopeful advanced lines which obtained from cotton breeding projects (TAGEM, Project Executive)
11. Determination the technical performances of drip irrigation systems used in Diyarbakır province. (TAGEM, Project Executive)
12. Cotton Breeding that Tolerant of High Temperature Stress. (TAGEM, Project Leader)
13. The Effect of Different Sowing Spacings and Nitrogen Doses to Yield and Yield Components in Corn (Zea mays L.) in Diyarbakir Conditions (TAGEM, Project Executive)
14. The Effect of Different Cross Sowing Methods and Leonardite Applications on Yield, Yield Components and Some Physical Properties of Soil in Red Lentil Cultivation (TAGEM, Project Leader)



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15. Establishing a Sustainable Normative Production Plan for Irrigated Areas and Determining Effective Social Networks in Adoption of the Plan: The Case of Ambar Dam Basin (TAGEM, Project Executive).

16. The Effect of Plant Density and Sowing Times on Yield, Fiber Quality Criteria and Some Physiological Parameters in Cotton (TAGEM, Project Executive).

▪ Ongoing Projects

1. Producer Satisfaction and Tracking of Wheat Varieties Developed by TAGEM (TAGEM, Project Executive).

▪ PUBLICATIONS

▪ INTERNATIONAL ARTICLES AND PAPERS

▪ Articles Published in International Journals

1. GÜRSOY S., SESSİZ A., KARADEMİR E., KARADEMİR Ç., KOLAY B., URGUN M., MALHİ S.S., 2011, Effects of Ridge And Conventional Tillage Systems On Soil Properties And Cotton Growth, Intirnational Journal of Plant Production 5 (3), July 2011, ISSN: 1735-6814 (Print), 1735-8043 (Online)
2. GÜRSOY S., MUTLU Ç., URĞUN M., KOLAY B., KARACA V., DUMAN M., 2012, The Effect of Ridge Planting and Earliness of Durum Wheat Varieties on Sunn Pest (Eurygaster spp.) Damage and Grain Yield, Crop Protection, 38 (2012) 103-107
3. GÜRSOY S., ÖZASLAN C., URGUN M., KOLAY B., KOÇ M., 2014, The Effect of Sowing Time, Tillage System and Herbicides on Weed Species Density, Weed Biomass and Yield of Lentil Within a Lentil-Wheat Sequence, Agriculture and Forestry, Vol. 60 Issue 3: 73-85
4. GÜRSOY S., KOLAY B., AVŞAR Ö., SESSİZ A., 2015, Evaluation of Wheat Stubble Management Practices in Terms of the Fuel Consumption and Field Capacity, Research in Agricultural Engineering, Vol. 61, 2015(3):116–121
5. KOLAY B., 2021. Soil Tillage In Cotton Cultivation, Chap. 6, Cotton Production Under Abiotic Stress (Editor: E.KARADEMİR, Ç. KARADEMİR). Iksad Publications, Ankara, 2021
6. KOLAY B., 2022. Innovative Agricultural And Environmental Solutions, Chap. 2, Environmental Effects Of Slow-Controlled Release Fertilizers (Editor: A. ÇELİK, M. F. BARAN, K. BELLİTÜRK). Iksad Publications, Ankara, 2022



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International Papers, Seminars, etc.

1. KOLAY B., A. R. ÖZTÜRKMEN, Ş. TEKİN, S. GÜRSOY, M. SÜMERLİ, Z. TÜRK, Ö. DEĞERLİ, 2012, Determination of the Change of Some Soil Properties in Different Soil Depth Due to the Increasing Dose Application of Sewage Sludge to Lentil, 8th International Soil Science Congress, Volume 3, Page 565, İzmir, TURKEY
2. KOLAY B., GÜRSOY S., DEĞERLİ Ö., SÜMERLİ M., KILIÇ H., ÖZTÜRKMEN A.R., TEKİN Ş., TÜRK Z., 2010, Determination of the Change of Some Soil Properties in Different Soil Depth Due to the Increasing Dose Application of Sewage Sludge to Wheat, "International Sustainable Water and Wastewater Management Symposium", (Volume 2, Page:1310-1318) Konya, TURKEY
3. KOLAY B., AVŞAR Ö., 2014, Implementation of Twin Row and Narrow Row in Corn Breeding, International Mesopotamia Agriculture Congress, Sayfa 961, Diyarbakır, TURKEY
4. GÜRSOY S., KOLAY B., AVŞAR Ö., SESSİZ A., 2014, Economic Evaluation of Making the Straw from Wheat Stubble by Using the Stubble Chopper Mounted on Combine, 12th International Agricultural Mechanization and Energy Congress, Adana, TURKEY
5. KOLAY B., GÜRSOY S., AVŞAR Ö., SESSİZ A., 2019, Determination of Yield and Some Yield Components od Directly Sowing Red Lentil After Different Harvesting Methods of Wheat, I. International Göbeklitepe Agriculture Congress, 25-27 November 2019, Proceedings Book Page:91-96
6. KOLAY B., GÜRSOY S., SÜMERLİ M., ÖZTÜRKMEN A. R., TÜRK Z., 2019, The Effect of Applying Different Doses of Sewage Sludge to Soil on Protein Rate and The Amount of Some Oil Acids in Soybean, 1. International Göbeklitepe Agriculture Congress, 25-27 November 2019, Proceedings Book Page:245-250

NATIONAL ARTICLES AND PAPERS

Articles Published in National Journals

1. GÜRSOY S., KOLAY B., 2012, Effect of Different Tillage Systems after Wheat Harvest on Soil Physical Properties and Seed Germination of Lentil, Selçuk Universty, Selçuk Journal of Agriculture and Food Sciences, 26(3):(2012) 50-56, ISSN: 1309-0550
2. GÜRSOY S., ÖZASLAN C., URĞUN M., KOLAY B., KOÇ M., 2014, The Relationship between Grain Yield and Some Weed Species Density in Lentil Production under Different Tillage Systems, Journal of Bahri Dagdas Crop Research (1-2):1-13, 2014
3. KOLAY B., GÜRSOY S., AVŞAR Ö., BAYRAM N., ÖZTÜRKMEN A.R., AYDEMİR S., AKTAŞ H., 2016, Effect of Some Soil Properties of Different Doses Leonardite to Wheat, Soil Water Journal, 2016, 5 (2): (32-36)
4. KOLAY B., GÜRSOY S., AVŞAR Ö., BAYRAM N., ÖZTÜRKMEN A.R., AYDEMİR S., AKTAŞ H., 2016, The Effect of Different Levels of Leonardite on Wheat Yield, Yield Components and Some Quality Properties, Journal of Dicle University, Institute of Science, DUFED 5(3) (2016) 93-98
5. KOLAY B., GÜRSOY S., AVŞAR Ö., SESSİZ A., 2018, The comparison of different stubble management systems in terms of fuel, capacity and direct sowing, Derim, 2018/35(2):201-208
6. KOLAY B., 2019, Cotton Cultivation, Journal of Agriculture in Diyarbakır, Issue:May-Agust 2019, Page:53-55
7. KOLAY B., GÜRSOY S., ÖZASLAN C., AVŞAR Ö., SÜER İ., E., KOÇ M. 2020, Determination of the effectiveness of different spraying techniques in wheat-lentil rotation system applied with protected soil tillage methods, Harran Journal of Agricultural and Food Science, Volume 24, Issue 3, Page:359-371



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8. KOLAY B., ÖZTÜRKMEN A.R., 2021, The Effect of Different Cross Sowing Methods and Leonardite Sourced Liquid Organic Manure Applications on Weed Growth in Red Lentil Plant, International Journal of Eastern Mediterranean Agricultural Research, 4(1): 1-14
 9. KOLAY B., ÖZTÜRKMEN A.R., 2022, Economic Analysis of Leonardite Sourced Liquid Organic Soil Conditioner Applied to Soil at Different Doses in Red Lentil Cultivation, ADYUTAYAM, Cilt 10, Sayı 1: 1-10
 10. KOLAY B., ÖZTÜRKMEN A.R., 2022, Economic Analysis of Leonardite Applied to the Soils at Different Rates in Red Lentil Cultivation, Dicle University Journal of the Institute of Natural and Applied Science, 11 (2) (2022) 325-334
 11. KOLAY B., 2022. MAIZE; Breeding Techniques and Cultivation, Chapter 14, Different Soil Tillage Methods in Corn Cultivation (Editor: R. CENGİZ). Iksad Publications, Ankara, 2022
- **National Papers, Seminars, etc.**
1. KOLAY, B., ÖZTÜRKMEN, A.R., 2007. Effects On Some Soil Properties Of Different Soil Tillage Methods On Second Crop Soybean In Diyarbakır Conditions, 13 June 2007, 2nd Conservation Tillage and Direct Seeding Workshop. Page 55-67) Ege Üniv. Agr. Fac., İzmir, TURKEY
 2. KOLAY, B., ÖZTÜRKMEN, A.R., ALTİKAT A., 2007. Economical Analysis Of Different Soil Tillage Methods On Second Crop Soybean In Diyarbakır Conditions, 13 June 2007, 2nd Conservation Tillage and Direct Seeding Workshop (Page 68-74) Ege Üniv. Agr. Fac., İzmir, TURKEY
 3. KOLAY B., ÖZTÜRKMEN A.R., 2009, The Effect of Soil Tillage Methods on Yield and Yield Components of Second Crop Soybean Farming in Diyarbakır Conditions. VIII. Field Crops Congress, (Volume 1, Page:213-216), Hatay, TURKEY
 4. KOLAY B., GÜRSOY S., 2009, Organic Product Exportation at Turkey, 1st GAP Organic Agriculture Congress, Page:1024-1027, Şanlıurfa, TURKEY
 5. KOLAY B., GÜRSOY S., 2009, Organic Product Exportation at Turkey, 1st GAP Organic Agriculture Congress, Page:1024-1027, Şanlıurfa, TURKEY
 6. GÜRSOY S., KOLAY B., SESSİZ A., 2010, Evaluation the Factors that Hindering the Development of Agricultural Machinery Industry in Diyarbakır Province. 1 st. International Participatory Government-University Symposium and Marble Council. UDUSİS, Page:275-278, Diyarbakır, TURKEY
 7. GÜRSOY S., KOLAY B., 2011, Determination of Agricultural Mechanization Level of Diyarbakır Province, Southeastern Anatolia Project GAP VI. Agriculture Congress, Page:521-526, Şanlıurfa
 8. KOLAY B., AVŞAR Ö., TEKİN Ş., 2012, Usage Opportunities of Urban Sewage Sludge in Agricultural Areas, 4th National Solid Waste Management Congress, Antalya, TURKEY
 9. GÜRSOY S., KOLAY B., SESSİZ A., 2012, Effect of Green Manure Application under Different Tillage Systems on Seed Germination of Corn and Soil Physical Properties, 27th. National Agricultural Mechanization and Energy Congress, Samsun, TURKEY
 10. KOLAY B., AVŞAR Ö., 2015, The Potential of Agricultural Waste in Diyarbakır Province, 29th National Agricultural Mechanization and Energy Congress, Page:524-527 Diyarbakır, TURKEY
 11. KOLAY B., GÜRSOY S., AVŞAR Ö., KARADEMİR E., ATAKUL Ş., SAYAR M.S., DORAN İ., SESSİZ A., 2016, The Development of Forage Peas Before Cotton Planting in Cotton-Corn Rotation by Using Different Tillage Methods, 9th Conservation Tillage and Direct Seeding Workshop, Page:83-87, 11-12 May 2016,



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OTHER PUBLICATIONS

▪ **Project Conclusion Reports:**

1. Investigation The Effect of Using Sewage Sludge on Yield, Yield Components and Soil Structure of Grain Plants and Oil Seed Plants. (2010)
2. The Effect Of Different Levels Of Leonardite On Wheat Yield And Some Yield Components And Soil Of Some Physical And Chemical Characteristics Of Soil Under Diyarbakır Conditions. (2014)
3. Determination of Effect of Green Manure under Different Tillage Systems on Cotton and Maize yield, Yield Component and Soil Properties. (2014)
4. Effects of Different Sowing Time, Soil Tillage Methods and Herbicides on Lentil Weed, Yield And Yield Components. (2014)
5. Researching The Residue Management Methods After Wheat Harvest. (2014)
6. The Effects of Narrow Row and Twin Row Cultivation Techniques on Yield, Yield Components and Some Soil Properties in Corn. (2018)
7. Determination the Effects of Different Nitrogen Applications on Sweet Corn Yield and Yield Parameters by Fertigation Method. (2018)
8. Determination the Potantial Toxic Element Scope and Plant Nutrient of Agricultural Soils in Diyarbakır, Batman, Şırnak Provinces, Creating Data Base and Mapping. (2020)
9. Improvement of High Yield and Fiber Quality, Tolerant to Biotic and Abiotic Stress Factors of Domestic Cotton Genotypes by Using Classic and Molecular Breeding Methods. (2018)
10. Determination of susceptibility of verticillium dahliae kleb. that hopeful advanced lines which obtained from cotton breeding projects (2019)
11. Determination the technical performances of drip irrigation systems used in Diyarbakır province. (2020)
12. Cotton Breeding that Tolerant of High Tempurature Stress. (2020)
13. The Effect of Different Sowing Spacings and Nitrogen Doses to Yield and Yield Components in Corn (Zea mays L.) in Diyarbakir Conditions (2021)
14. The Effect of Different Cross Sowing Methods and Leonardite Applications on Yield, Yield Components and Some Physical Properties of Soil in Red Lentil Cultivation (2022)
15. Establishing a Sustainable Normative Production Plan for Irrigated Areas and Determining Effective Social Networks in Adoption of the Plan: The Case of Ambar Dam Basin (2022)

▪ **Master Thesis and Ph.D. Thesis:**

1. Effects Of Different Soil Tillage Methods On Second Crop Soybean Yield And Some Soil Properties at Diyarbakır Conditions (Master Thesis).
2. Effect of Different Cross Sowing Methods and Solid-Liquid Organic Soil Conditioners Sourced Leonardite Applications on Yield, Yield Components and Quality Properties of Soil for Red Lentil Cultivation (Ph.D. Thesis).



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

1. Programming and Application Training in Agricultural Extension, Adana-2022
2. Programming in Agricultural Extension, Implementation, Monitoring and Evaluation Training, İzmir-2003
3. Research Management, 2006
4. II. Conservation Tillage and Direct Sowing Workshop, İzmir-2007
5. VIII. Field Crops Congress, Hatay-2009
6. Ridge Planting, Reduced Tillage and Plant Growing Technique in Arid Conditions, Diyarbakır-2009
7. I. GAP Organic Agriculture Congress, Şanlıurfa-2009
8. Irrigation, Fertilization and Salinity, Şanlıurfa-2010
9. International Sustainable Water and Wastewater Management Symposium, Konya-2010
10. I. International Participation Public-University-Industry Cooperation Symposium and Marble Council, Diyarbakır-2010
11. Irrigation and Fertigation, Şanlıurfa-2012
12. 4th National Solid Waste Management Congress, Antalya-2012
13. Netcad Basic Education Program, Diyarbakır-2012
14. International Mesopotamian Agriculture Congress, Diyarbakır-2014
15. 29. National Agricultural Mechanization and Energy Congress, Diyarbakır-2015
16. 9. Conservation Tillage and Direct Sowing Workshop, Şanlıurfa-2016
17. HORIZON 2020 (H2020) Project Preparation Applied Training Program, Diyarbakır-2016
18. Better Cotton Practices Training, Diyarbakır-2017
19. Project Cycle Management, Diyarbakır-2017
20. International Training Workshop on Drip Irrigation and Fertigation, Diyarbakır-2017
21. National Stubble Burning Prevention Workshop, Batman-2017
22. I. International Göbeklitepe Agriculture Congress, Şanlıurfa-2019
23. Preparation of National and International R&D Projects in Strategic Food, Agriculture and Livestock Products, Diyarbakır-2021
24. Sericulture Workshop, Diyarbakır-2022
25. International Congress and Workshop on Agricultural Structures and Irrigation, Diyarbakır-2022
26. Training of Trainers and Effective Communication Techniques Training, Diyarbakır-2022

▪ Other Activities

Secretariat, International Mesopotamia Agriculture Congress, Diyarbakır-2014