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Research interests	Fruit growing, Fruit quality, Product management of fruit tr Peach training systems, Apricot rootstocks propagation	

Education		
Doctorate		
Master of Science		
2008 - Selçuk University, Department of Horticulture (Fruit Growing and Breeding)		
Bachelor of Science		
1991 - Atatürk University, Faculty of Agriculture Soil Science		

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Work Experience		
2001-	Fruit Research Institute, Eğirdir (Researcher)	
1996 - 200	1 MINISTRY OF NATIONAL EDUCATION (Teacher)	

Publications

- 1. Butar S, Çetinbaş M, Atasay A, İşçi M, **Koçal H**, 2016. Effects of Different Rootstocks and Treatment on Fruit Thinning in Golden Delicious Apple. Journal of Agricultural Faculty of Gaziosmanpasa University, 33 (2): 9-18.
- 2. Atasay A, **Koçal H**, Öztürk Y, Önal İ, Öget E, 2015. Determination of the Late Spring Frost Damage for Some Apple Varieties on Different Rootstocks. VII. National Horticultural Congress, 25-29 August 2015, 965-969, Çanakkale.
- 3. Çetinbaş M, Butar S, Atasay A, İşçi M, **Koçal H**, 2015. Reduction Of Apple Vegetative Shoot Growth Cv. Starcrimson Delicious/MM 111 With Prohexadione Calcium Application Does Not Decrease Fruit Quality. Journal of Applied Botany and Food Quality 88: 259 263.
- 4. Demirtaş İ, Aksu M, Sarısu HC, Karamürsel ÖF, Gür İ, **Koçal H**, Sesli Y, Öztürk FP, Babalık Z, Aydınlı M, 2015. Breeding of Early Ripening Sweet Cherry Cultivars. Abstract Book, II. İnternational Plant Breeding Congress and Eucarpia Oil and Protein Crops Section Conference. 01-5 November 2015. Abstract book, p:232.
- 5. Gur İ, **Koçal H**, Aksu M, Karamürsel ÖF, Sarısu HC, Sesli Y, Demirtaş İ, 2015. Selection of Prunus Cerasifera Plum Species in Isparta, Kütahya Cities and Evaluation of Rootstock Characteristics.

2nd International Plant Breeding Congress. Absract Book p: 230. Antalya

- 6. Kücükyumuk C, Yıldız H, Sarısu HC, Kaçal E, **Koçal H,** 2015. Response of sweet cherry grafted on different rootstocks to water stress. Fresenius Environmental Bulletin, 24(9a):3014-3024.
- 7. Öztürk Y, **Koçal H,** Erdoğan ŞR, Şenyurt H, İşci M, 2015. Determination of Susceptibility of Some Aprıcot Cultivars to The Shot-Hole (Stigmina carpophila) Disease Under Natural Inoculum Conditions. II. International Plant Breeding Congress and Eucarpia—Oil and Protein Crops Section Conference, 1-5 November, Antalya, Turkey, 235p.
- 8. Sarısu HC, Karamürsel ÖF, Gür İ, **Koçal H**, Yürekli Cengiz Ö, Demirtaş İ, Öztürk FP, 2015. The performance of '0900 Ziraat' sweet cherry variety on different rootstocks. Third Balkan Symposium on Fruit Growing, September 16-18, 2015, Belgrade, Serbia, Book of Abstracts.p:42.
- 9. Sarısu HC, Karamürsel ÖF, Öztürk FP, Demirtaş İ, Gür İ, **Koçal H**, Aksu M, Babalık Z, Sekmen Ş, 2015. Correlation between lignin amount in cortex and cherry rootstock vigour. Latest technologies for crop improvement Workshop, Antalya, 22-27 February 2015. p:35
- 10. Aksu M, Sarisu HC, Demirtaş İ, Gür İ, **Koçal H,** Güneyli A, 2014. Determination Of Cracking Resistance And Fruit Quality Parameters Of Big Lory And Prime Giant Cherry Cultivars Under The Ecological Conditions Of Eğirdir (Isparta). Turkish Journal Of Agricultural And Natural Sciences. Special Issue: 2, 2014. 1753-1756p.
- 11. Çetinbaş M, Butar S, Atasay A, İşçi M, **Koçal H**, 2014. The Effect Of Pro-Ca (Prohexadione Calcium) Application On The Shoot Growth And Fruit Characteristics Of 'Scarlet Spur' Apple Cultivar. 25th International Scientific- Experts Congress on Agriculture and Food Industry pp: 265-268-Izmir.
- 12. Demirtaş İ, Sarısu HC, Aksu M, Karamürsel ÖF, Gür İ, **Kocal H**, Sesli Y, Öztürk FP, Babalık Z, Aydınlı M, Eraslan, F, 2014. Breeding of New Sweet Cherry Varieties. New Approaches İn Apple And Cherry Growing And Breeding Techniques Workshop Book. P:75-79. May, 22-24 2014. Adana, Turkey.
- 13. Demirtaş İ, Sarısu HC, Aksu M, Karamürsel ÖF, Gür İ, **Kocal H**, Sesli Y, Öztürk FP, Babalık Z, Aydınlı M, Eraslan F, 2014. Breeding Of Late Ripening Sweet Cherry Varieties. Balkan Agriculture Concress. 8-10 September, 2014. Edirne.
- 14. Küçükyumuk C, Yıldız H, Kaçal E, **Koçal H**, Karamürsel ÖF, Emre RA, 2014 Effects of Different Mulching and Irrigation Programmes on Vegatative Development and Water Comsumption in Drip-irrigated Apple Trees Yuzuncu Yıl University Journal of Agricultural Sciences, 24(3): 257-269
- 15. Melan K, Kedici R, Caner ÖK, Bircan M, Eroğlu Özdemir Z, Demirtaş İ, **Koçal H**, İşçimen B, Ünlü M, Merken Ö, Canıhoş E, Hazır A, Aksoy E, 2014 Cherry Peach Apricot Growing and Integrated Management. General Directorate Of Food And Control Ankara 246p.
- 16. Sarısu HC, Karamürsel ÖF, Öztürk FP, Demirtaş İ, Gür İ, **Koçal H**, Aksu M, Babalık Z, Sekmen Ş, Özyiğit S, 2013. Selection breeding of wild Prunus cerasus L. clonal rootstocks for sweet and sour cherries. International Plant Breeding Congress, 2013, Antalya, Turkey. Abstract Book. p.489.
- 17. Küçükyumuk C, Yıldız H, Sarısu HC, Kaçal E, **Koçal H**, 2013. The effects of different water stress levels on vegetative development and some parameters for Mazzard rootstock (*Prunus avium* L.). III. National Land and Water Resources Congress, 22-24 October 2013, s:315-321.
- 18. Aksu M, Sarısu HC, Öztürk Y, Gür İ, **Koçal H**, 2012. Molecular Characterization Of Some Wild Sour Cherry (Prunus Cerasus L.) Types By Using RAPD Technique TABAD, 5 (1): 78-81s

- 19. Karamürsel ÖF, Sarısu HC, Öztürk FP, Gür İ, **Koçal H**, 2011. Adaptation of Some Japanese Plum Varieties (*Prunus salicina* L.) to Egirdir Ecology. VI. National Horticultural Congress, Şanlıurfa 04-08 October, 2011.
- 20. **Koçal H**, Pırlak L, 2011. Determination of Graft Compatibility Level of Alyanak and Roxana Apricot Varietes Grafted on Some Clonal and Seedling *Prunus* Rootstock. The Journal of Agricultural Faculty of Ege University 48 (1):39-45
- 21. Akpınar AE, **Koçal H,** Ergül A, Kazan K, Şelli ME, Bakır M, Aslantaş Ş, Kaymak S, Sarıbaş R.2010 SSR-Based Molecular Analysis of Economically İmportant Turkish Apricot Cultivars GMR Genetics and Molecular Research 9 (1): 324-332
- 22. Wojcik P, Gubbuk H, Akgul H, Gunes E, Ucgun K, **Kocal H,** Kucukyumuk C, 2010. Effect of Autumn Calcium Spray at a High Rate on 'Granny Smith' Apple Quality and Storability. Journal of Plant Nutrition, Volume 33 (1):46-56.
- 23. Wojcik, P., Gubbuk, H., Akgul, H., Gunes, E. Ucgun, K., **Kocal, H.,** Kucukyumuk, C., 2010. Response of "Granny Smith" apple trees to foliar titanium sprays under conditions of low soil availability of iron, manganese and zinc. Journal of Plant Nutrition, Volume 33 (13):1914-1925.
- 24. Uçgun K, Atasay A, Akgül H, Ay Z, Küçükyumuk C, **Koçal H**, Bakıcı S , Kaymak S, Özongun Ş, Gargın S, Akpınar Ç, 2009 Remove from marked Records Effect of mycorrhiza applications to plant development in MM 106 apple clon. Types By Using RAPD Technique TABAD, Vol. 2 No. 2 pp. 187-192
- 25. Karamursel OF, Sevik İ, Sarısu HC, **Koçal H**, Ozturk FP, 2007 Adaptation of European Plums (*Prunus Domestica*) Under Egirdir Ecological Conditions. 5th Turkish Nat Hort Congress (1), p:481-485

Projects

- 1. Determination of Suitable Training Systems and Planting Rover Distences for Aprikoz (Şalak) Apricot Variety Grafted on Some Clonal Rootstocks. (Project Leader),
- 2. Developing Cultivation of Fresh Apricot At Lakes Region (Project Leader), MAREM (2003-2015)
- 3. Determination of Graft Compatibility Conditions of Alyanak and Roxana Apricot Cultivars Grafted on Almond, Peach Seedling Rootstocks and Myrobolan 29C Clonal Rootstock (Project Leader) (2005-2007)
- 4. Determination of Some Peach Rootstock-Variety Combinations in Lakes Region. (Research assistant)
- 5. Determining of the Effects of "RainGardTM" on Prevention of Cracking in Prime Giant Sweet Cultivar(Research assistant) Private Sector
- 6. Determining of Effects of Some Treatments on Prevention of Cracking in Cherry II (Research assistant) Private Sector
- 7. Determining of Effects of Some Treatments on Prevention of Cracking in Cherry I (Research assistant) Private Sector
- 8. Determination of Effect on Thinning of BA (6-benzyladenine) in Starkrimson Apple Variety, Private Sector,
- 9. Determination of Effect on Russet of GA₄₊₇ + BA (6-benzyladenine) in Starkspur Golden Delicious Apple Variety ,Private Sector,
- 10. Selection of *Prunus cerasus* L. Rootstock and Investigation of Propagation Possibilities(Research assistant)
- 11. Rootstock Breeding for Plum -- Sub Project 1: Development and Selection of New Clonal Rootstocks for Plums (Research assistant)
- 12. Effects of Different Training Systems and Planting Distances on Yield and Quality of Japanese Plum (Research assistant)

13. Sweet Cherry Cultivar Breeding (Research assistant)