

Prof. Dr. Mohammad Akmal

List of Publications

Reviewed Publications

a. Impact Factor Journals

1. Hatam, M., M. Akmal and G.H. Jamro. 1993. Seasonal pattern of nodal and diurnal reproductive abscission in three soybean cultivars. *Pak. J. Bot.* 25 (2):167-174.
2. Akmal, M. and Tadashi Hirasawa. 2003. Growth response of the seminal roots of wheat seedling to reduction in water potentials of vermiculite. *Japanese J. Crop Sci.* 72: 260-261.
3. Akmal, M and M.J.J. Janssens. 2004. Productivity and light use efficiency of perennial ryegrass under contrasting water and N supplies. *Field Crops Research* 88: 143-153.
4. Akmal, M and T. Hirasawa. 2004. Growth response of seminal roots of wheat seedlings to a reduction in the water potential of vermiculite. *Plant and Soil* 267: 319-328.
5. Raziuddin, J. Bakht., Z.A. Swati, M. Shafi, Farhatullah and M. Akmal. 2010. Effect of cultivars and culture medium on callus formation and plant regeneration from mature embryo of wheat (*Triticum aestivum* L.). *Pak. J. Bot.* 42(1): 639-652.
6. Farhatullah, R.W. Goose, Raziuddin, N.U. Khan, M. Akmal and M. Inayatullah. 2010. Increase in frequency of the RPG₄ locus in Soybean cultivars. *Pak. J. Bot.* 42(2): 997-1002.
7. Akmal, M., Hameed-ur-Rehman, Farhatullah, M. Asim and H. Akbar. 2010. Response of maize varieties to nitrogen application for leaf area profile, crop growth and yield components. *Pak. J. Bot.* 42(3): 1941-1947.
8. Akmal, M. J. Schellberg, and R.A. Khattak. 2010. Biomass allocation and Nitrogen distribution in plant of ryegrass under water and Nitrogen supplies. *J. Plant Nutrition* 33 (12):1177-1188.
9. Farhatullah, R.W. Goose, Raziuddin, N.U. Khan, M. Akmal and M. Inayatullah. 2010. Mapping gene for bacterial blight (RPG₄ locus) in Soybean. *Pak. J. Bot.* 42(3): 2145-2149.
10. Naushad, A.T., Farhatullah, M. A. Rabbani, N. U. Khan, M. Akmal, Z. H. Pervaiz and M. U. Aslam. 2010. Study of total seed storage protein in indigenous *Brassica* species based on sodium dodecyl sulfate polyacrylamide gel electrophoresis (SDS-PAGE). *African J. Biotechnology* 9(45): 7595-7602.
11. Khalid, M., Farhatullah, Naqibullah Khan, Raziuddin, M. Yasir Khan, M. Akmal and Nasir Ali. 2010. Linkages of Morphological Markers in *Brassica*. *Pak. J. Bot.*, 42(5):

2995-3000.

12. Raziudin, Z. A. Swati, J. Bakht, Farhatullah, Naqibullah, M. Shafi, M. Akmal and G. Hassan. 2010. *In Situ* Assisment of Morpho-physiological response of wheat (*T. aestivum* L.) genotypes to drought. *Pak. J. Bot.*, 42(5): 3183-3195.
13. Raziuddin, Farhatullah, G. Hassan, M. Akmal, S. S. Shah, Naqibullah, F. Mohammad, M. Shafi, J. Bakht and W. Zhou. 2011. Effects of Cadmium and salinity on growth and photosynthesis parameters of *Brassica species*. *Pak. J. Bot.* 43(1):333-340.
14. Akmal, M., U. Farid, M. Asim and Farhatullah. 2011. Crop growth in early spring and radiation use efficiency in alfalfa. *Pak. J. Bot.* 43(1): 635-641.
15. Habib, G., M.F. Hassan, M. Akmal, S. Ahmad, and Ghufraullah. 2011. Maize response in cereal based rotation with legume as catch crop. *Pak. J. Bot.* 43(2): 921-28.
16. Akmal, M. Uzma, F., M. Asim, Raziuddin and Farhatullah. 2011. Growth comparison of the exotic species for green forage yield. Accepted in *Pak. J. Bot.* 43(3): 1557-1561.
17. Akmal, M., S.M. Shah, M. Asim and M. Arif. 2011. Causes of yield reduction by delay planting in Hexaploid wheat. *Pak. J. Bot.* 43(4): in press
18. Asim, M., M. Akmal, A. Khan, Farhatullah and Raziuddin. 2010. Rate of nitrogen application influence yield of maize at low and high populations in North-west, Pakistan. Accepted in *Pak. J. Bot. Ref.* 10-121.
19. Asad Shah, R. Gohar, and M. Akmal. 2010. Seminal root of maize varieties in relation to reduction in the substrates moisture content. Accepted in *Pak. J. Bot. Ref.* 10-071.
20. Akmal, M. Anwar M., A. Shah, M. Asim, R. Gohar and Raziuddin. 2010. Growth and yield comparison of perennial grasses as rainfed fodder on marginal lands. Accepted in *Pak. J. Bot.*
21. Akmal, M., M. Asim and R.A. Khattak. 2010. Maize response to yield and yield traits with different N and density under the climate variability. Under review in *J. Plant Nutrition*.
22. Akmal, M., R. Schaeufele, and H. Schnyder. 2011. C₃ plant expansion in grasslands of Pakistan: estimated from ¹³C signature of the local wool products. Under review in *J. Plant Ecology JPE-40-2011*.
23. Asim, M., M. Akmal, Farhatullah and Raziuddin. 2011. Crop growth and Radiation Use Efficiency of spring and summer maize planted with different Plant population and Nitrogen rates. Under Review in *Field Crops Research*.

b. Other Journals

HEC Approved Journals

24. Akmal, M. J. Schellberg and W.Kuehbauch. 1999. Production and Quality of Forage Grasses under Two N-levels and Water Regimes. Sarhad J. of Agric. 15(2): 93-101.
25. Shah, S.M. and M. Akmal. 2002. Effect of different sowing date on yield and yield components of wheat varieties. Sarhad J. Agric. 18(2): 143-149.
26. Akmal, M. Fazle-Subahan and M. Sajjad. 2002. Clovers' forage production as sole and in mixture with cereals in different combination under partial drought. Sarhad J. Agric. 18(2): 151-159.
27. Habib, G., M. Akmal, Z. Luqman and N. Ahmad. 2007. Biomass production and feed quality of three summer fodder species planted under two nitrogen levels. Sarhad J. Agric. 23(4):1145-1149.
28. Habib, G., A. Hameed and M. Akmal. 2007. Current feeding management of peri-urban dairy buffaloes and scope for improvement. Pak. Vet. J. 27:35-41.
29. Sikandar Azam, M. Akmal, M. Amjad and wasiullah. 2008. Extension of green forage supply duration of cereal-legume in combination of different seeding rates. Sarhad J. Agric. 24:415-422.
30. Jalil, A, S. Ahmad, G. Habib, and M. Akmal. 2009. Kutta Sheep an endangered breed in northern Pakistan. Sarhad J. Agric. 25(2): 278-284.
31. Wasiullah, A.U. Bhatti, F. Khan and M. Akmal.2010. Spatial variability and geo-statistics application for mapping of soil properties and nutrients in semi arid district Kohat of Khyber Pakhtunkhwa (Pakistan). Soil & Environ. 29(2): 159-166 .
32. Akmal, M., N. Kausar, G. Habib, M. Asim, S. Ahmad, and N. H. Shah. 2010. Yield comparison of forage legumes under partial stress and normal irrigation. Sarhad J. Agric. 26(4):507-513.

Other Publications

33. Akmal, M., J. Schellberg, and M. Janssens. 1999. Influence of Water and Nitrogen Supply on Leaf Growth and Development at Different Nodal Position of Ryegrass. Pak. J. of Biol. Sci. 2 (1): 121-123.
34. Akmal M., S. Mumtaz Shah and M. Asim. 2000. Yield performance in three commercial wheat varieties due to flag leaf area. Pakistan J. of Biol. Sci. 3(12): 2722-24.
35. Akmal, M. and Zulfiqar. 2002. Production and quality of millet (*Pennisetum*

- typhoidum* L.) germplasms for fodder. Pak. J. of Biol. Sci.. 5(5):539-542.
36. Akmal, M. Zulfiqar and M. Asim. 2002. Forage yield and quality evaluation of the sorghum varieties. Paki. J. Agron. 1(2-3): 60-63.
 37. Azam, S., M. Akmal and M. Amjad. 2004. Forage productivity and supply season of grass-legume mixture with different seed rates in partial drought. Considered for presentation to Animal Nutrition Conference to be held at PC Lahore on Dec. 01-3, 2004.
 38. Akmal M., M. Asim and Gul Daraz Khan. 2006. Root length to weight ratio and water use efficiency of perennial ryegrass in contrasting water and nitrogen supply. The Nucleus 42(3-4):207-211.
 39. Schellberg, J., M. Akmal und W. Kuehbauch. 1994. Trockenmass-produktion, Blattflaeschenentwicklung und Lichtaus-nutzung in Rainsaat und Gemenge von *Lolium multiflorum* Lam. und *Trifolium resupinatum* L. bei frueher und spaeter saat. (Dry matter production, leaf area development and radiation use efficiency in pure and mixture of *Lolium mltiflorum* Lam. and *Trifolium resupinatum* L. as influenced by early and late sowing date). Forage Society Conference in Tuingen, Germany. p. 182-185.
 40. Akmal, M., J. Juergen, und W. Kuehbauch. 1995. Trockenmass-bildung und N-aufnahme von Deutsch Weidel-grass unter wasserstress. (Dry matter development and N-uptake in english ryegrass under drought stress). Arbeit-gemeinschaft Gruenland und Fuetterbau in der Gesellschaft von Pflanzenbauwissenschaften. 39. Jahrestagung von 31st Aug.-2nd Sep. in TU-Munich, Germany. p. 169-173.
 41. Janssens, M., B. Nolden, A. Mierowska, M. Akmal, H. Obaid und Y. Quenum. 1997. Einsatz gartenbaulicher Methoden zur Adaptation subtropischer Gemuesearten. (Application of the garden methods in the adaptation of subtropical vegetables types). Poster AID Bonn, Feb. 1997.
 42. Akmal, M. 1997. Growth of Forage Grasses under Different Water Regimes and Nitrogen Supply Levels. ISBN 3-8265-3148-5. Shaker verlag, Aachen Germany.
 43. Hans Schnyder, Mohammad Akmal, Fernando A Lattanzi1, Karl Auerswald1, and Rudi Schäufele. 2006. ¹³C signature of old and modern carpets reveals expansion of C₃ plants in grasslands of Pakistan. Poster Presentation in BASIN-SIBAE conference held in Portugal, March 15, 2006.
 44. Akmal, M. and T. Hirasawa. 2009. Root and shoot growth, branch system mechanism under water potentials of vermiculite in wheat. In process.