

Ganguly S. Nutraceutical and pharmaceutical implication of prebiotics in livestock and poultry feed. *Bull. Pharm. Res.* 2013;3(2):71-7.

References (41):

1. Anderson DP. Immunostimulants, adjuvants and vaccine carriers in fish: applications to aquaculture. *Ann. Rev. Fish Dis.* 1992;2:281-307.
<http://www.sciencedirect.com/science/article/pii/0959803092900678>
2. Bar N, Mukhopadhyay SK, Ganguly S, Pradhan S, Patra NC, Pal S, Goswami J, Singh YD, Halder S. Study on probiotic effect of xylanase supplementation in broiler feed. *Ind. J. Anim. Nutr.* 2012;29(1):100-3.
<http://www.indianjournals.com/ijor.aspx?target=ijor:ijan&volume=29&issue=1&article=018>
3. Bohn JA, BeMiller JN. (1->3)- β -glucans as biological response modifiers: a review of structure-functional activity relationships. *Carbohydr. Polym.* 1995;28(1):3-14.
<http://www.sciencedirect.com/science/article/pii/0144861795000763>
4. Cook MT, Hayball PJ, Hutchinson W, Nowak BF, Hayball JD. Administration of a commercial immunostimulant preparation, EcoActiva as a feed supplement enhances macrophage respiratory burst and the growth rate of snapper (*Pagrus auratus*, Sparidae (Bloch and Schneider)) in winter. *Fish Shellfish Immunol.* 2003;14(4):333-45.
<http://www.ncbi.nlm.nih.gov/pubmed/12657536>
5. Danicke S, Jeroch H, Bottcher W, Bedford MR, Simon O. Effects of dietary fat type, pentosan level and xylanases on digestibility of fatty acids, liver lipids, and vitamin E in broilers. *Eur. J. Lipid Sci. Tech.* 1999;101(3):90-100.
<http://onlinelibrary.wiley.com/doi/10.1002/%28SICI%291521-4133%28199903%29101:3%3C90::AID-LIPI90%3E3.0.CO;2-Q/abstract>
6. Danicke S, Halle I, Strobel E, Franke E, Jeroch H. Effect of energy source and xylanase addition on energy metabolism, performance, chemical body composition and total body electrical conductivity (TOBEC) of broilers. *J. Anim. Physiol. Anim. Nutr. (Berl)* 2001;85(9-10):301-13.
<http://www.ncbi.nlm.nih.gov/pubmed/11686803>
7. Das D, Mukhopadhyay SK, Ganguly S, Kar I, Dhanalakshmi S, Singh YD, Singh KS, Ramesh S, Pal S. Mannan oligosaccharide and organic acid salts as dietary supplements for Japanese quail (*Coturnix Coturnix Japonica*). *Int. J. Livest. Res.* 2012;2(3):211-4.
<http://www.scopemed.org/?mno=25585>

8. Eidelsburger U, Kirchgessner M. Effect of organic acids and salts in the feed on fattening performance of broilers. *Archiv Fuer Gefluegelkunde* 1994;58(6):268-77.
<http://eurekamag.com/research/002/603/influence-organic-acids-salts-fodder-fattening-performance-broilers.php>
9. Fairchild AS, Grimes JL, Jones FT, Wineland MJ, Edens FW, Sefton AE. Effects of hen age, Bio-Mos and flavomycin, on poult susceptibility to oral *Escherichia coli* challenge. *Poult. Sci.* 2001;80(5):562-71.
<http://www.ncbi.nlm.nih.gov/pubmed/11372704>
10. Ganguly S, Dora KC, Sarkar S, Chowdhury S. Supplementation of prebiotics in fish feed - a review. *Rev. Fish Biol. Fisher.* 2012;23(2):195-9. [DOI: 10.1007/s11160-012-9291-5]
<http://link.springer.com/article/10.1007%2Fs11160-012-9291-5#>
11. Ganguly S, Paul I, Mukhopadhyay SK. Immunostimulants - their significance in finfish culture. *Fish. Chimes.* 2009;29(7):49-50.
12. Ganguly S, Paul I, Mukhopadhyay SK. Applications and effectiveness of immunostimulants, probiotics, and prebiotic in aquaculture: a review. *Isr J. Aquacul. - Bamidgeh* 2010;62(3): 130-8.
13. Ganguly S, Mukhopadhyay SK. Immunostimulants, probiotics and prebiotics: importance of immunostimulants, probiotic and prebiotic feed supplements in poultry ration & in commercial aquaculture. LAP Lambert Academic Publishing, Germany, 2011.
14. Ganguly S. Potential non-antibiotic growth promoting dietary supplements for animal nutrition: A Review. *J. Appl. Pharm. Sci.* 2013a;3(7):174-8.
http://www.japsonline.com/abstract.php?article_id=986
15. Ganguly S. Implications for supplementation of dietary enzymes in poultry feed - a review. *Int. Res. J. Pharm.* 2013b;4(5):10-11. [DOI: 10.7897/2230-8407.04503]
www.irjonline.com/admin/php/uploads/1771_pdf.pdf
16. Gao F, Jiang Y, Zhou GH, Han ZK. The effects of xylanase supplementation on performance, characteristics of the gastrointestinal tract, blood parameters and gut microflora in broilers fed on wheat-based diet. *Anim. Feed Sci. Technol.* 2008;142(1-2):173-84.
<http://www.sciencedirect.com/science/article/pii/S0377840107003197>
17. Gibson GR, Roberfroid MB. Dietary modulation of human colonic microbiota: introducing the concept of prebiotics. *J. Nutr.* 1995;125(6):1401-12.
<http://www.ncbi.nlm.nih.gov/pubmed/7782892>
18. Izat AL, Adams MH, Cabel MC, Colberg M, Reiber MA, Skinner JT, Waldroup PW. Effects of formic acid or calcium formate in feed on performance and microbiological characteristics of broilers. *Poult. Sci.* 1990;69(11):1876-82.
<http://www.ncbi.nlm.nih.gov/pubmed/2087448>

19. Liu JR, Lai SF, Yu B. Evaluation of an intestinal *Lactobacillus reuteri* strain expressing rumen fungal xylanase as a probiotic for broiler chickens fed on wheat-based diet. *Br. Poult. Sci.* 2007;48(4):507-14. [DOI: 10.1080/00071660701485034]
<http://www.ncbi.nlm.nih.gov/pubmed/17701504>
20. Loddi MM, Moraes VMB, Nakaghi LSO, Tuca FM, Hannas MI, Ariki J. Mannan oligosaccharide, organic acids on performance and intestinal morphometric characteristic of broiler chickens. Abstract of Alltechs 20th Annual Symposium, Nicholasville, Kentucky, USA, 2004; 45.
http://www.scielo.cl/scielo.php?script=sci_nlinks&ref=485577&pid=S0301-732X200900020001000015&lng=en
21. Maiorka A, Santin AME, Borges SA, Opalinski M, Silva AVF. Evaluation of a mix of fumaric, lactic, citric and ascorbic acids on starter diets of broiler. *Arch. Vet. Sci.* 2004;9(1):31-7.
22. Mathlouthi N, Juin H, Larbier M. Effects of xylanase and beta-glucanase supplementation of wheat- or wheat - and barley-based diets on the performance of male turkeys. *Br. Poult. Sci.* 2003;44(2):291-8. [DOI: 10.1080/0007166031000096498]
<http://www.ncbi.nlm.nih.gov/pubmed/12828215>
23. Nisbet, D. Defined competitive exclusion cultures in the prevention of enteropathogen colonisation in poultry and swine. *Antoine van Leeuwenhoek* 2002;81(1-4):481-6.
<http://www.ncbi.nlm.nih.gov/pubmed/12448744>
24. Parks CW, Grimes JL, Ferket PR, Fairchild AS. The effect of mannanoligosaccharide, bambermycins, and virginiamycin on performance of large white male market turkeys. *Poult. Sci.* 2001;80(6):718-23.
<http://www.ncbi.nlm.nih.gov/pubmed/11441837>
25. Paul I, Isore DP, Joardar SN, Roy B, Aich R, Ganguly S. Effect of dietary yeast cell wall preparation on innate immune response in broiler chickens. *Ind. J. Anim. Sci.* 2013;83(3): 307-9.
26. Paul I, Isore DP, Joardar SN, Samanta I, Biswas U, Maiti TK, Ganguly S, Mukhopadhyay SK. Orally administered β -glucan of edible mushroom (*Pleurotus florida*) origin upregulates innate immune response in broiler. *Ind. J. Anim. Sci.* 2012;82(7):745-8.
<http://scialert.net/eboardlivedna.php?issn=1816-4935&id=91.1507>
27. Pelicano ERL, Souza PA, Souza HBA, Figueiredo DF, Boiago MM, Carvalho SR, Bordon VF. Intestinal mucosa development in broiler chickens fed natural growth promoters. *Rev. Bras. Cienc. Avic.* 2005;7(4): Campinas Oct./Dec.
http://www.scielo.br/scielo.php?pid=S1516-635X2005000400005&script=sci_arttext

28. Roy HS, Mukhopadhyay SK, Niyogi D, Choudhary PK, Ganguly S. Organic acids as a replacer of growth promoter antibiotics in broilers: pathological and bacteriological studies on intestine. *Ind. J. Vet. Pathol.* 2012;36(1):114-6.
<http://www.indianjournals.com/ijor.aspx?target=ijor:ijvp&volume=36&issue=1&article=031>
29. Sahoo PK, Mukherjee SC. Effect of dietary beta-1, 3 glucan on immune responses and disease resistance of healthy and aflatoxin B1-induced immunocompromised rohu (*Labeo rohita* Hamilton). *Fish Shellfish Immunol.* 2001;11(8):683-95.
<http://www.ncbi.nlm.nih.gov/pubmed/11759039>
30. Santin E, Maiorka A, Macari M, Grecco M, Sanchez JC, Okada TM, Myasaka AM. Performance and intestinal mucosa development of broiler chickens fed diets containing *Saccharomyces cerevisiae* cell wall. *J. Appl. Poult. Res.* 2001;10(3):236-44.
<http://japr.fass.org/content/10/3/236.full.pdf+html>
31. Savage TF, Zakrzewska EI, Andersen JR. The effects of feeding mannan oligosaccharide supplemented diets to poult on performance and the morphology of small intestine. *Poult. Sci.* 1997;76(1):139.
http://www.scielo.cl/scielo.php?script=sci_nlinks&ref=485588&pid=S0301-732X200900020001000026&lng=en
32. Shiyan Q, Yubo W, Changhua L, Limin G, Wenqing L, Defa L. Properties of Aspergillar xylanase and the effects of xylanase supplementation in wheat-based diets on growth performance and the blood biochemical values in broilers. *Asian Australas. J. Anim. Sci.* 2005;18(1):66-74.
http://www.ajas.info/Editor/manuscript/upload/18_13.pdf
33. Siwicki AK, Morand M, Terech-Majewska E, Niemczuk W, Kazun K, Glabski E. Influence of immunostimulants on the effectiveness of vaccines in fish: in vitro and in vivo study. *J. Appl. Ichthyol.* 1998;14(3-4):225-7.
<http://onlinelibrary.wiley.com/doi/10.1111/j.1439-0426.1998.tb00646.x/abstract>
34. Spring P, Wenk C, Dawson KA, Newman KE. Effect of dietary mannanoligosaccharides on cecal parameters and concentration of enteric bacteria in the ceca of salmonella-challenged broiler chicks. *Poult. Sci.* 2000;79(2):205-11.
<http://www.ncbi.nlm.nih.gov/pubmed/10735748>
35. Stanley VG, Gray C, Daley M, Krueger WF, Sefton AE. An alternative to antibiotic-based drugs in feed for enhancing performance of broilers grown on *Eimeria* spp.-infected litter. *Poult. Sci.* 2004;83(1):39-44.
<http://www.ncbi.nlm.nih.gov/pubmed/14761082>
36. Veldman A, Vahl HA. Xylanase in broiler diets with differences in characteristics and content of wheat. *Br. Poult. Sci.* 1994;35(4):537-50.
<http://www.ncbi.nlm.nih.gov/pubmed/7828012>

37. Veeramani P, Selvan ST, Viswanathan K. Effect of acidic and alkaline drinking water on body weight gain and feed efficiency in commercial broilers. *Ind. J. Poult. Sci.* 2003;38(1): 42-4.
<http://www.indianjournals.com/ijor.aspx?target=ijor:ijps&volume=38&issue=1&article=009>
38. Visek WJ. The mode of growth promotion by antibiotics. *J. Anim. Sci.* 1978;46(5):1447-69.
<http://www.journalofanimalscience.org/content/46/5/1447.full.pdf+html>
39. Vetvicka V, Sima P. β -glucan in invertebrates. *Invert. Surv. J.* 2004;1(1):60-5.
http://journaldatabase.org/articles/b-glucan_invertebrates.html
40. Vulevic J, Rastall RA, Gibson GR. Developing a quantitative approach for determining the in vitro prebiotics potential of dietary oligosaccharides. *FEMS Microbiol. Lett.* 2004;236(1): 153-9.
<http://www.ncbi.nlm.nih.gov/pubmed/15212805>
41. Wu YB, Ravindran V, Thomas DG, Birtles MJ, Hendriks WH. Influence of phytase and xylanase, individually or in combination, on performance, apparent metabolisable energy, digestive tract measurements and gut morphology in broilers fed wheat-based diets containing adequate level of phosphorus. *Br. Poult. Sci.* 2004;45(1):76-84.
<http://www.ncbi.nlm.nih.gov/pubmed/15115204>

