**REFERENCES**

Ahmad, F. and Jabbar, M. A. 2000. Comparative efficiency of calf starter and conventional ration in buffalo sucking calves. 21st Annual Report, LPRI, Bahadurnagar, Okara-Pakistan.

Aii, T., Takahashi, S., Kurihara, M. and Kume, S. 1988. The economical evaluation of a mist and fan system for dairy cows based on milk production increases. *Japanese Journal of Zootechnical Sciences,* 59: 637-642.

Albright, J. L. 1983. Status of animal welfare awareness of producers and direction of animal welfare research in the future.  *Journal of Dairy Sciences*, 66:2208–2220.

Albright, J. L. 1987. Dairy animal welfare: Current and needed research. *Journal of Dairy Sciences*, 70:2711–2731.

Albright, J. L. 1993a. Feeding behavior of dairy cattle.  *Journal of Dairy Sciences*, 76:485–498.

Albright, J. L. and Grandin, T. 1993b. Understanding dairy cattle behavior to improve handling and production.  *Journal of Dairy Sciences*, 76(1):235.

Ali, M.H., Khan, M. A. S., Islam, M. N., Khan, M. K. I., Rashid, M. M. and Khatun, M. J. 2000. Comparative performance study on the crossbreeds and indigenous cows under small holder dairy farming. *Pakistan Journal of Biological Sciences,* 3: 795-798.

Andersson, M. 1985. Effects of drinking water temperatures on water intake and milk yield of tied-up dairy cows. *Livestock Production Sciences*, 12:329–337.

Arave, C. W., Albright, J. L. and Sinclair, C. L. 1974. Behavior, milk yield, and leucocytes of dairy cows in reduced space and isolation. *Journal of Dairy Sciences*, 59:1497–1501.

Atkeson, F. W. and Warren, T. R. 1934. The influence of type of ration and plane of production on water consumption of dairy cows.  *Journal of Dairy Sciences*, 17:265–277.

Banerjee, G. C., 2007. A text book of Animal Husbandry, 8th edition, Oxford & IBH Publication, pp:370, 730-756, 765-766.

Bangladesh Economic Survey, 2009. Department of finance, Ministry of Finance and Planning, Government of the People’s Republic of Bangladesh, Dhaka. pp. 71.

Barnett, V. 1991. Sample Survey Principles and Methods. Third edition, Edward Arnold Publisher Ltd, London. 1991.

BBS. 2010. Bangladesh Bureau of Statistic’s. Farm poultry and Livestock survey, 2007-2008.

Bickert, W. G. 2003. Dairy Production Systems. Encyclopedia of Agricultural and Food Engineering. *Marcel Dekker Inc., New York, NY.*

Bickert, W. G. 2005. Ventilation, The Merck Veterinary Manual, 9th ed. Merck & Co., Whitehouse Station, NJ. 46 10. pp. 1609–1702.

Bilal, M.O., Iqbal, M. U., Muhammad, G., Avais, M. and Sajid, M.S. 2004. Factors affecting the prevalence of clinical mastitis in buffaloes around Faisalabad district (Pakistan). *International Journal of Agriculture & Biology*, 6(1): 185-187.

Brammer, H., Asaduzzaman, M. and Sultan, P. 1996. Effects of climate and sea level changes on the natural resources of Bangladesh, in R. A. Warrick and Q. K. Ahmed (eds.), The Implications and Climate and Sea-Level Change for Bangladesh, Kluwer Academic Publishers, 143-203.

Bushnell, R. B. 1984. The importance of hygienic procedures in controlling mastitis, Symposium on Bovine Mastitis. *Veterinary Clinic’s of North America,* 6:361–370.

Casely, D. and Kunnar, K. 1988. The collection, analysis and use of monitoring and evaluation data Baltimore. The Hohnces Hopkins University Press, Department of Agricultural Economics and Business, Wye College.

Coulon, J. B., Doreau, M., Remond, B. and Journet, M. 1987. Development of feeding activities in dairy cows at the start of lactation and relation to the quantities of feed ingested. *Reproduction Nutrition Development,* 27:67-75.

Davis, C. L. and Drackley, J. K. 1998. The Development, Nutrition, and Management of the Young Calf, Iowa State University Press, Ames.

De Jong, H. and Van Soest, Y. 2001. De biologische melkveehouderijsector in kaart gebracht, Productschap Zuivel, Rijswijk.

DLS. 2009. Department of Livestock Services, Bangladesh, Organization’s detail.

Duguma, B., Kechero, Y. and Janssens G. P. J. 2011. Analysis of Constraints Facing Urban Dairy Farmers and Gender Responsibility in Animal Management in Jimma Town. *Libyan Agriculture Research Center Journal Internation,* 2 (4): 155-160.

FAO. 2010. Food and Agricultural Organization Division of Animal Production and Health, *International consultation reports.*

Galton, D. M., Peterson, L. G. and Merrill, W. G. 1988. Evaluation of udder preparation on intermammary infections.  *Journal of Dairy Sciences*, 71:1417–1421.

Grant, R. J. and Albright, J. L. 2000. Feeding behaviour. Farm Animal Metabolism and Nutrition, CABI Publishing, Wallingford, Oxon, UK, pp. 365-382.

Gujjar, S.R. and Shakil, M. 2005. Extension activities around Livestock Production Research Institute, Bahadurnagar (Okara) at farmer level. 26th Annual Report, LPRI. Bahadurnagar, Okara-Pakistan.

Halim, M.A. 1992. A comparative economic analysis of local and crossbred dairy cows in a selected area of Dhaka district. M.Sc. Thesis, Department of Agricultural Economics, Bangladesh Agricultural University, Mymensingh, Bangladesh, 10-23.

Haque, S. A. M. 2009. Bangladesh: Social gains from dairy development. In: Animal Production and Health Commission for Asia and the Pacific and Food and Agriculture Organization (APHCA-FAO) publication on smallholder dairy development: Lessons learned in Asia, RAP publication 2009/2.

Harris, B. 2010. Nutrient Requirements of Dairy Cattle. *Journal of Dairy Sciences,* 59:1503-1506.

Heinrichs, A. J. and Conrad, H. R. 1987. Measuring feed intake patterns of lactating dairy cows. *Journal of Dairy Sciences,* 70:705.

Hossain, M. M., Alam, M. M., Rashid, M. M., Asaduzzaman, M. and Rahman, M. M. 2005. Small Scale Dairy Farming Practice in a Selective Area of Bangladesh. *Pakistan Journal of Nutrition* ,4 (4): 215-221.

Hossain, Z.M.A., Hossain, S. M. J., Rashid, M. M., Sultana, N. and Ali, M. H. 2004. Study on the present management condition of private dairy farm at Rangpur Sadar Thana in Bangladesh*. Journal of Biological Sciences*, 3.

Hunt, E. 1990. Critical colostrum. Miller Publ. Co., Minnetonka, MN, Dairy Herd Workshop,

1:16.

Hussain, R. and Jabbar, M. A. 2001. Palatability of urea molasses blocks and their effect on utilization of fodder in adult cattle and buffaloes. 22nd Annual Report, LPRI Bahadunagar, Okara-Pakistan.

Hye, S. A. 1993. Review on labour and employment. In Growth and Development in Rural area.

Islam, R. and Muqtada, M. 1986. Employment and poverty alleviation: An overview. In Bangladesh: Selected Issues in Employment and Development, R. Islam and M. Muqtada (eds.), New Delhi: International Labour Organisation, 25: 1-10.

Javed, S. and Ahmad, R. 1988. Identification of endoparasites in buffalo and cattle at livestock experiment station, Bahadurnagar, Oadirabad and around Bahadurnagar Farm. 9th Annual Report, LPRI Bahadurnagar, Okara-Pakistan.

Jhonson, H.D. and Vanjonack, W.J. 1976. Effects of environmental and other stressors on blood hormone patterns in lactating animals*. Journal of Dairy Sciences,* 59: 1603-1617.

Johnston, W. S., Hopkins, C. F., Maclachlan, C. K. and Sharp, J. C. M. 1986. Salmonella in sewage effluent and the relationship to animal and human disease in the North of Scotland. *Veterinary Record*, 119:201–203.

Kabir, M.A. 1995. An economic study of subsidized private dairy farming in selected area of Bangladesh, M.Sc. Thesis Department of Agricultural Economic, Bangladesh Agricultural University, Mymensingh, Bangladesh, pp: 129-134.

Karim, M., Zafar, A. H., Akram, M. and Najeeb, S. 2005. Economics of milk production under various farming systems in Okara and Sahiwal districts, 26th Annual Report, LPRI Bahadurnagar, Okara- Pakistan.

Kertz, A. F., Reutzel, L. F. and Mahoney, J. H. 1984. Adlibitum water intake by neonatal calves and its relationship to calf starter intake, weight gain, feces score. and season.  *Journal of Dairy Sciences*, 67:2964– 2969.

Khan, M. J., Peters, K. J. and Uddin, M.M. 2009. Feeding Strategy for Improving Dairy Cattle Productivity in Small Holder Farm in Bangladesh. *Bangladesh Journal of Animal Science* , 38: 1-2.

Kinnear, T.C. and Tayler, J.R. 1995. Marketing Research: An Applied Approach. Mc Grow. Hill Book Company, Singapore.

Kramer, K. 2004. Housing System of Dairy Cattle. *Journal of Agricultural Dairy Establishment*, 96: 11-13.

Kurihara, M. and Shioya, S. 2007.Dairy Cattle Management in a hot environment. *Journal of Dairy Sciences*, 11: 55-58.

Lanham, J. K., Coppock, C. E., Milam, K. Z., Labore, J. B., Nave, D. H., Stermer, R.A. and Brasington, C. F. 1986. Effects of drinking water temperature on physiological responses of lactating Holstein cows in summer. *Journal of Dairy Sciences*, 69:1004–1012.

Larson, L. L., Owens, F. G., Albright, J. L., Appleman, R. D., Lamb, R. C. and Muller, L. D. 1977. Guidelines toward more uniformity in measuring and reporting calf experimental data. *Journal of Dairy Sciences*, 60:989–991.

Leaver, J. D. 2003. Dairy Cattle, The UFAW Farm Hand Book, 4th edition, pp. 21-23.

Lensink, B. J., Fernandez, W., Cozzi, G., Florand, L. and Veissier, I. 2001. The influence of farmers’ behavior on calves’ reactions to transport and quality of veal meat. *Journal of Animal Sciences.* 79:642–652.

Little, W. and Shaw, S. R. 1978. A note on the individuality of the intake of drinking water by dairy cows*. Animal Production*, 26:225–227.

Malloy, N. B. and Olson, K. E. 1994. Caring for Dairy Animals, Reference Guide. *Agricultural Education*, Stratford, IA.

Mason, A. and Lee, S. 2005. The demographic dividend and poverty reduction. In Proceedings of the United Nations Seminar on the Relevance of Population Aspects for the Achievement of the Millennium Development Goals. 17-19 November 2004, New York, USA. <http://www.un.org/esa/population/publications/PopAspectsMDG/19_MASONA.pdf>

McGavin, M. D. and Morrill, J. L. 1976. Scanning electron microscopy of ruminal papillae in calves fed various amounts and forms of roughage. *American Journal of Veterinary Research,* 37:497–508.

Mechor, G. D., Grohn, Y. T., McDowell, L. R. and Van Saun, R. J. 1992. Specific gravity of bovine colostrum immunoglobulins as affected by temperature and colostrum components.  *Journal of Dairy Sciences*, 75:3131–3135.

Metz, J. H. M. 1975. Time patterns of feeding and rumination in domestic cattle, Ph.D. Diss. Univ. of Wageningen, The Netherlands.

Milam, K. Z., Coppock, C. E., West, J. W., Lanham, J.K., Nave, D. H., Labore, J. M., Stermer, R. A. and Brasington, C. F. 1986. Effects of drinking water temperature on production responses in lactating Holstein cows in summer. *Journal of Dairy Sciences,* 69:1013–1019.

Miyan, H. A. 1996. Towards sustainable development: The national conservation strategy of Bangladesh, Consultancy report on the livestock sector. Ministry of Environment and Forestry, Dhaka, Bangladesh.

Mollel, E. L., Lekule, F. P., Kurwijila, R. L., Turuka, F. M. and Petersen, P.H. 1999. A Socioeconomic study on the role of gender in small scale crop-livestock farming in Turiani, Morogoro. Proceedings of the 26th Scientific Conference LITI-TENGERU Arusha, TSAP conferences series. 26: 354-360.

Murphy, M. R., Davis, C. L. and McCoy, G. C. 1983. Factors affecting water consumption by Holstein cows in early lactation.  *Journal of Dairy Sciences*, 66:35–38.

Mwankemwa, A.S.A. 2004. Performance of saving and credit co-operative societies and their impact on rural livelihoods: A case study of Morogoro rural and Mvomero districts, Tanzania. Msc. Dissertation, Sokoine University of Agriculture, Morogoro, Tanzania. 132-134.

MWPS. 2000. Dairy Free stall Housing and Equipment. 7th ed. MWPS, Iowa State Univ., Ames.

Nahar, N. 1987. A comparative study on the performances of F1 crossbred progenies on Farm an Urban conditions, M.Sc. Thesis, Department of Animal Breeding and Genetics. Bangladesh Agricultural University, Mymensingh.

Nahar, T.N., Islam, M. and Hasnath, M. A. 1992. A comparative study on the performance of F1 crossbred cows under rural conditions*. Asian- Australian Journal of Animal Sciences*, 5: 435-438.

Nauta, W.J., Baars, T., Groen, A.F., Veerkamp, R.F. and Roep, D. 2001. Animal Breeding in Organic Farming, Discussion paper, Louis Bolk Institute, Driebergen.

Nedelea, A., Grosu, V. and Shamsuddoha, M. 2009. Dairy Farming-an Alternative Income Generating Activity, Bulletin UASVM Horticulture, 66(2): 352-355.

NMC. 2007. NMC Recommended Mastitis Control Program.

NRC. 2001. Nutrient Requirements of Dairy Cattle. 7th rev. ed. Natl. Acad. Press, Washington, DC.

Pajor, E. A., Rushen, J. and Passillé, A. M. B. 2000. Aversion learning techniques to evaluate dairy cattle handling practices. *Application of Animal Behavour Science*, 69:89–102.

Pankey, J. W. 1992. Practical milking tips: Pre- and post-dipping, Proc. Natl. Mastitis Council. National Mastitis Council, Arlington, VA. pp. 94–100.

Pankey, J. W., Wildman, E.E., Drechsler, P. A. and Hogan, J. S. 1987. Field trial evaluation of premilking teat disinfection.  *Journal of Dairy Sciences*, 70:867–872.

Poate, C.D. and Daplyn, P.F. 1993. Data for Agrarian Development. First edition, Cambridge University Press.pp. 7-9.

Pritchett, L. C., Gay,C. C., Besser,T. E. and Hancock, D.D. 1991. Management and production factors influencing immunoglobulin G concentration in colostrum from Holstein cows. *Journal of Dairy Sciences*, 74:2336–2341.

Reneau, J. K., Farnsworth, R. J. and Johnson, D. J. 1994. Practical milking procedures, Proc. Natl. Mastitis Council Meeting, Orlando, FL. NMC, Arlington, VA, pp. 22–32.

Rodrigues, A. C. O., Caraviello, D. Z. and Ruegg, P. L. 2005. Management and financial losses of Wisconsin dairy herds enrolled in self-directed milk quality teams. *Journal of Dairy Sciences*, 88:2660–2671.

Rushen, J., Boissy, A., Terlouw, E.M.C. and Passillé, A. M. B. 1999. Opioid peptides and behavioral and physiological responses of dairy cows to social isolation in unfamiliar surroundings. *Journal of Animal Sciences*, 77:2918–2924.

Rushen, J., Passillé, A. M. B. and Munksgaard, L. 1999. Fear of people by cows and effects on milk yield, behavior, and heart rate at milking. *Journal of Dairy Sciences*, 82:720–727.

Saadullah, M. 2001. Smallholder Dairy Production and Marketing in Bangladesh, Paper presented at South-South Workshop on Smallholder Dairy Production and Marketing, NDDB-ILBS, March. 2001, Ahmedabad, India, 13-16.

Salman, M. D. and Meyer, M. E. 1987. Animal Brucellosis, diseases caused by Brucella spp., *Preventive Veterinary Medicine,* 4: 485.

Samad, M. A. 2001. Poshu Palan & Veterinary Chikitsha Viddiya, 2nd edition, LEP Publication, pp. 78, 90-96, 101.

Samad, M. A. 2008. Animal Husbandry & Veterinary Science, 11th edition, LEP Publication,

Schaeffer, R. L., Mendenhall, W. and Ott, L. 1986. Elementary Survey Sampling. Third edition, Duxbury Press, Boston, USA.

Seabrook, M. F. 1994. Psychological interaction between the milker and the dairy cow. Pages 49–58 in Dairy Systems for the 21st Century. Proc. 3rd Intl. Dairy Housing Conf. ASAE, St. Joseph, MI

Shah, S.1. 1994. Animal husbandry, National Book Foundation, Islamabad, Pakistan.

Shamsuddin, M., Alam, M. M., Hossein, M. S., Goodger, W. J., Bari, F. Y., Ahmed, T. U., Hossain, M. M. and Khan, A. H. M. S. I. 2007. Participatory rural appraisal to identify needs and prospects of market-oriented dairy industries in Bangladesh. *Tropical Animal Health and Production,* 39:567-581.

Shinde, S., Matsushige, T. and Mastumura, H. 1994. Kakibunnbenngyu deno syonetsusutoresu hannou kaishiyosoku to bousyotaisaku no kouka. *Hiroshima Livestock Technology Research Center*, 10:5-15.

Sniffen, C. J., Beverly, R. W., Mooney, C. S., Roe, M. B. and Skidmore, A. L. 1993. Nutrient requirements versus supply in the dairy cow: strategies to account for variability.  *Journal of Dairy Sciences*, 76:3160-3169.

Sriri, M. T., Jaouhari, M. E., Saydi, A., Kuper, M. and Gal, P. Y. 2011. Supporting small-scale dairy farmers in increasing milk production: evidence from Morocco. *Tropical Animal Health Production*, 43:41–49.

Stott, G. H. and Fellah, A. 1983. Colostral immunoglobulin absorption related to concentration for calves.  *Journal of Dairy Sciences*, 66:1319–1328.

Stott, G. H., Marx, D. B., Menefee, B. E. and Nightengale, G. T. 1979. Colostral immunoglobulin transfer in calves, III, Amount of absorption. *Journal of Dairy Sciences*, 62:1902–1907.

Susan, W. G. 2008. Site selection for Dairy Housing System. *Journal of Extention*, Pub no : 96.

Swanson, K.S., Merchen, M. R., Erden, J. W. and Drackley, J. K. 1996. Effect of accelerated post pubertal growth and early calving on lactation performance of primiparous Holstein heifers.  *Journal of Dairy Sciences*, 79: 2024-2031.

Uddin, M. N., Uddin, M. B., Mamun, M., Hassan, M. M. and Khan, M. M. H. 2012. Small Scale Dairy Farming for Livelihoods of Rural Farmers: Constraint and Prospect in Bangladesh. *Journal of Animal Science Advances,* 2(6): 543-550.

Underwood, W., McClary, D. and Kube, J. 1995. The bovine perfect sleeper or use of shredded rubber filled polyester mattresses to prevent injury to dairy cattle housed in tie stalls. *Bovine Practice*, 29:143–148.

Urassa, J. K. and Raphael, E. 2002. The contribution of small scale dairy farming to community welfare: a case study of Morogoro Municipality. http://www.fiuc.org/esap/MOROG/MOROG5/General/dairyfarming.pdf

Vasilatos, R. and Wangsness, R. J. 1980. Feeding behavior of lactating dairy cows as measured by time lapse photography. *Journal of Dairy Sciences*, 63:412.

Whittlestone, W. G., Kilgour, R. K., Langen, H. and Duirs, G. 1970. Behavioral stress and the cell count of bovine milk*. Journal of Milk Food Technology*, 33:217–220.

World Bank ,2005. [www.worldbank.org](http://www.worldbank.org)

Yaqub, T., Ahmad, R. and Ahmad, A. 1997. Isolation and characterization of Past. multocida from suspected cases of HS. 18th Annual Report. LPRI Bahadurnagar, Okara-Pakistan.