

Prof. J. F. Mupangwa



Full Name: Professor John Fisher Mupangwa

Email: jmupangwa@ufh.ac.za ^[1]

Qualifications: PhD (University of Zimbabwe), MSc. (University of Reading, UK), BSc. Agriculture (Hons) (University of Zimbabwe).

Research Interests:

1. Planted pasture production and utilization
2. Pasture seed production
3. Agroforestry in livestock production
4. Dairy production
5. Ruminant animal nutrition

Editorial Board Membership

- a) **UNISWA Research Journal of Agriculture Science and Technology**
- b) Southern African Journal of Education, Science and Technology

Journal Reviewer

- a) South African Journal of Animal Science
- b) African Journal of Agricultural Research,
- c) African Journal of Biotechnology,
- d) Botswana Journal of Agriculture & Applied Sciences

Teaching Responsibilities:

Teaches honours and undergraduate courses in Planted Pastures, Fodder Production and Conservation, Ruminant Nutrition and Dairy Science and Technology. Supervises Research projects for PhD, MSc and Honours students.

Community Engagement:

Offers farmer training services Planted pasture production, Fodder conservation & utilization, and Dairy production.

Collaboration:

He has developed active collaborations with the following organizations:

1. Agricultural Research Council
2. University of Pretoria
3. Eastern Cape Departments of Agriculture and Rural Development
4. University of Venda
5. Zimbabwe Open University

Selected Publications in Refereed Journals

2013

1. Matsebula, M., Bhebhe, E., Mupangwa, J. F. and Dlamini, B. J. 2013. Prediction of liveweight from linear body measurements of indigenous goats of Swaziland. **Livestock Research for Rural Development 25 (6). www.lrrd.org**
2. Gadzirayi C.T, Kubiku F. N. M., Mupangwa J.F, Mujuru L. and Chikuvire T.J. 2013. The effect of plant spacing and cutting interval on growth performance of Moringa oleifera. **Journal of Agricultural Science and Applications 2 (2): 131-136.**
3. Gadzirayi C.T., Mudyiwa S. M., Mupangwa J. F. and Gotosa J. 2013. Cultivation practices and utilisation of Moringa oleifera provenances by small holder farmers: Case of Zimbabwe. **Asian Journal of Agricultural Extension, Economics & Sociology 2(2): 152-162.**

2012

1. Gadzirayi, C.T., Masamha, B., Mupangwa, J.F. and Washaya,S. 2012. Performance of broiler chickens fed on mature Moringa oleifera leaf meal as a protein supplement to soyabean meal. **International Journal of Poultry Science 11 (1): 5-10.**
2. Gamedze, N. P., Mupangwa, J. F., Bhebhe, E. and Dlamini, B. J. 2012. Growth performance and forage nutrient content of Moringa (Moringa oleifera Lam) provenances under Luyengo, Swaziland conditions. **UNISWA Journal of Agriculture 16: 41-48.**

2011

1. Chimvurahwe, J., Musara, J.P., Mujuru, L., Gadzirayi, C.T., Nyakudya, I.W., Jimu, L., Katsvanga, C.A.T., Mupangwa, J.F. and Chivheya, R. 2011. Effect of feeding graded levels of Adansonia digitata (baobab) seed cake on the performance of broilers. **Journal of Animal & Plant Sciences 11 (3): 1442-1449.**

2009

1. Katsvanga, C.A.T., Jimu, L., Zinner, D. and Mupangwa, J.F. 2009. Diet of pine plantation and non-plantation ranging baboon (Papio ursinus) groups with reference to bark consumption in the eastern highlands of Zimbabwe. **Journal of Horticulture and Forestry 1 (9): 168 - 175.**

2008

1. Mwale, M., Mupangwa, J.F., Mapiye, C., Saina, H. and Chimvuramahwe, J. 2008. Growth performance of guinea fowl keets fed graded levels of baobab seed cake diets. **International Journal of Poultry Science** 7 (3): 429 - 432.

2. Mapiye, C., Mwale, M., Mupangwa, J.F., Chimonyo, M., Foti, R. and Mutenje, M.J. 2008. A research review of village chicken production constraints and opportunities in Zimbabwe. **Asian-Australian Journal of Animal Science** 21 (11): 1680 - 1688.

2007

1. Gadzirayi, C. T., Mutandwa, E. and Mupangwa, J. F. 2007. Veld condition trend of grazing areas. **Rangelands** 29 (1): 12 - 17.

2. Gadzirayi, C. T., Mutandwa, E. and Mupangwa, J. F. 2007. Holistic environmental management in a communal grazing scheme: From isolation to consolidation. **Rangelands** 29 (1): 18 - 22.

3. Mapiye, C., Mwale, M., Mupangwa, J. F., Mugabe, P. H., Poshiwa, X. and Chikumba, N. 2007. Utilisation of ley legumes as livestock feed in Zimbabwe. **Tropical Grasslands** 41: 84 - 91.

4. Phiri, M.S., Ngongoni, N.T., Maasdorp, B.V., Titterton, M., Mupangwa, J.F. and Sebata, A. 2007. Ensiling characteristics and feeding value of silage made from browse tree legume-maize mixtures. **Tropical and Subtropical Agroecosystems** 7: 149 - 156.

5. Jimu, L., Katsvanga, C. A. T., Kundhlande, A., Nyamugure, T., Gwenzi, D. and Mupangwa, J.F. 2007. Comparative growth of *Pinus taeda* and *Pinus patula* in Penhalonga, Zimbabwe. **Southern African Journal of Education, Science and Technology** 2 (1): 15-19.

2006

1. Mwale, M., Tangwara, R., Mapiye, C., Mupangwa, J. F., Madzinga, E., Mapurisa, C., Mutenje, M., Katsinde, C. S., Nyakudya, I. W. and Mavunganidze, Z. 2006. Awareness and adoption of *Tephrosia vogelli* and *Nasturtium trapaeolum* for the control of cattle parasites by the smallholder farmers in Upper Muzarambani District of Zimbabwe. **Journal of Sustainable Development in Africa** 8 (1).

2. Mupangwa, J. F., Ngongoni, N. T. and Hamudikuwanda, H. 2006. The effect of stage of growth and method of drying fresh herbage on chemical composition of three tropical herbaceous forage legumes. **Tropical and Subtropical Agroecosystem** 6 (1). 23 - 30.

3. Mapiye, C., Mupangwa, J.F., Mugabe, P.H., Chikumba, N., Poshiwa, X and Foti, R. 2006. A review of forage legume research for rangeland improvement in Zimbabwe. **Tropical Grasslands** 40: 145 - 149.

4. Mupangwa, J.F., Mugweni, B. Z., Titterton, M. and Maasdorp, B. 2006. Fermentation characteristics and nutritional composition of mixed maize-forage tree legume silages in Zimbabwe. **Southern African Journal of Agriculture and Science** 1 (1).

5. Mapiye, C., Foti, R., Chikumba, N., Poshiwa, X., Mwale, M., Chivuraise, C. and Mupangwa, J. F. 2006. Constraints to adoption of forage and browse legumes by smallholder dairy farmers in Zimbabwe. **Livestock Research for Rural Development** 18 (12). www.cipav.org.co/lrrd

6. Abia, J. N., Ngongoni, N. T., Gandiya, F., Hove, L., Mupangwa, J. F. and Sebata, A. 2006. The chemical composition and degradation characteristics of six Calliandra calothyrsus provenances. **Tropical and Subtropical Agroecosystems 6 (3)**.
7. Ngongoni, N. T., Mupangwa, J. F. and Hamudikuwanda, H. 2006. Rumen degradation and intestinal digestibility of rumen undegraded dietary nitrogen in legume-grass mixed diets estimated by the mobile nylon bag technique. **Southern African Journal of Education, Science and Technology 1 (1)**.
8. Mugweni, B. Z., Titterton, M., Maasdorp, B. V., Mupangwa, J. F. and Gandiya, F. 2006. The effects of feeding mixed cereal-tree forage legume silages on milk yield and composition in lactating dairy cows. **Southern Africa Journal of Education, Science and Technology 1 (2): 70 - 76**.
9. Mutandwa, E., Mukotami, S., Gadzirayi, C. T., Chihya, J. and Mupangwa, J. F. 2006. Factors affecting the adoption of exotic dairy breeds by smallholder dairy farmers: Case of Chikwaka Communal area of Zimbabwe. **Southern Africa Journal of Education, Science and Technology 1 (2): 97 - 102**.
10. Mapiye, C., Mwale, M., Chikumba, N., Poshiwa, X., Mupangwa, J. F. and Mugabe, P. H. 2006. A review of improved forage grasses in Zimbabwe. **Tropical and Subtropical Agroecosystems 6 (3). 125 - 131**
11. Mwale, M., Gadzirayi, C. T., Mapiye, C., Nemaunga, M., Kuchenga, M. M. and Mupangwa, J. F. 2006. Use of ethno-veterinary medicine for the control of cattle parasites by smallholder farmers in Zimbabwe. **Southern Africa Journal of Education, Science and Technology 1 (2): 111 - 117**.

2005

1. Sebata, A., Ngongoni, N. T., Mupangwa, J. F., Nyakudya, I. W. and Dube, J. S. 2005. The chemical composition and degradation characteristics of puncture vine (*Tribulus terrestris*). **Tropical and Subtropical Agroecosystem 5 (2): 85 - 89**.
2. Mulizane, M., Katsvanga, C. A. T., Nyakudya, I. W. and Mupangwa, J. F. 2005. The growth performance of exotic and indigenous tree species in rehabilitating active gold mine tailings dump at Shamva Mine in Zimbabwe. **Journal of Applied Sciences and Environmental Management 9 (2): 57 - 59**
3. Sebata, A., Ngongoni, N. T., Mupangwa, J. F., Nyakudya, I. W., Imbayarwo-Chikosi, V. E. and Dube, J. S. 2005. Effects of supplementing native pasture hay with puncture vine (*Tribulus terrestris*) on the intake, weight change, nitrogen balance and excretion of purine derivatives of sheep. **Tropical and Subtropical Agroecosystem 5 (3): 123 - 128**.
4. Matekaire, T., Mupangwa, J. F. and Kanyamura, E. F. 2005. The efficacy of banana plant (*Musa paradisiacal*) as a coccidiostat in rabbits. **International Journal of Applied Research in Veterinary Medicine 3 (4). 326 - 331**.

2003

1. Mupangwa, J. F., Ngongoni, N. T., Acamovic, T., Topps, J. H. and Hamudikuwanda, H. 2003. Rumen degradability and post-ruminal digestion of dry matter, nitrogen and amino acids in three forage legumes estimated by the mobile nylon bag technique. **Livestock Production Science 79: 37 - 46**.
2. Mupangwa, J. F., Ngongoni, N. T. and Hamudikuwanda, H. 2003. The effect of stage of growth and method of drying fresh forages on in sacco dry matter degradability of three tropical forage legumes. **Livestock Research for Rural Development**

15 (2). www.cipav.org.co/lrrd

3. Mupangwa, J. F., Ngongoni, N. T. and Hamudikuwanda, H. 2003. Effects of stage of maturity and method of drying on in situ nitrogen degradability of fresh herbage of *C. rotundifolia*, *L. purpureus* and *M. atropurpureum*. **Livestock Research for Rural Development 15 (5)**. www.cipav.org.co/lrrd [2]

2002

1. Mupangwa, J. F., Ngongoni, N. T., Daka, D. E. and Hamudikuwanda, H. 2002. The effect of supplementing a basal diet of veld grass hay with increasing levels of velvet bean hay (*Mucuna pruriens*) on nutrient parameters in sheep. **Livestock Research for Rural Development 14 (4)**.

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2000

1. Mupangwa, J. F., Acamovic, T., Topps, J. H., Ngongoni, N. T. and Hamudikuwanda, H. 2000. Content of extractable and bound condensed tannins of three tropical herbaceous forage legumes. **Animal Feed Science and Technology 83: 139 - 144**.

2. Mupangwa, J. F., Ngongoni, N. T., Topps, J. H., Acamovic, T., Hamudikuwanda, H. and Ndlovu, L. R. 2000. Dry matter intake, apparent digestibility and excretion of purine derivatives in sheep fed tropical legume hay. **Small Ruminant Research 36: 261 - 268**.

3. Mupangwa, J. F., Ngongoni, N. T., Topps, J. H. and Hamudikuwanda, H. 2000. Effects of supplementing a basal diet of *Chloris gayana* hay with one of three protein-rich legume hays of *Cassia rotundifolia*, *Lablab purpureus* and *Macroptilium atropurpureum* forage on some nutritional parameters in goats. **Tropical Animal Health and Production 32: 245 - 256**.

4. Mupangwa, J. F., Berardo, N., Ngongoni, N. T., Topps, J. H., Hamudikuwanda, H. and Ordoardi, M. 2000. Predicting the chemical composition of herbaceous forage legumes using Near Infrared Reflectance Spectroscopy (NIRS). **Journal of Applied Science for Southern Africa 6 (2): 107 - 114**.

1997

1. Mupangwa, J. F., Ngongoni, N. T., Topps, J. H. and Ndlovu, P. 1997. Chemical composition and dry matter degradability profiles of forage legumes *Cassia rotundifolia* cv. Wynn, *Lablab purpureus* cv. Highworth and *Macroptilium atropurpureum* cv. Siratro at 8 weeks of growth (pre-anthesis). **Animal Feed Science and Technology 69: 167-178**.

1994

1. Mupangwa J. F. 1994. Fodder production in small scale and communal farming sectors of Zimbabwe. In: C. Mutisi, M. Gomez, J. Madsen and T. Hvelplund (Eds.), *Integrated Livestock/Crop Production Systems in the Small Scale and Communal Farming System*. UZ/RVAU/NIAS Publication, Harare, ISBN 0869241133.

1993

1. Mupangwa J. F. 1993. Pasture seed production of promising grasses and legumes at Domboshava, Zimbabwe. In: J. Ndikumana and P. de Leeuw (Eds.), *Sustainable Feed Production and Utilisation for Smallholder Livestock Enterprises in Sub-Saharan Africa*. African Feed Resources Network, Nairobi, Kenya, ISBN 92 9146 0192.

Links:

[1] <mailto:jmupangwa@ufh.ac.za>

[2] <http://www.cipav.org.co/lrrd>