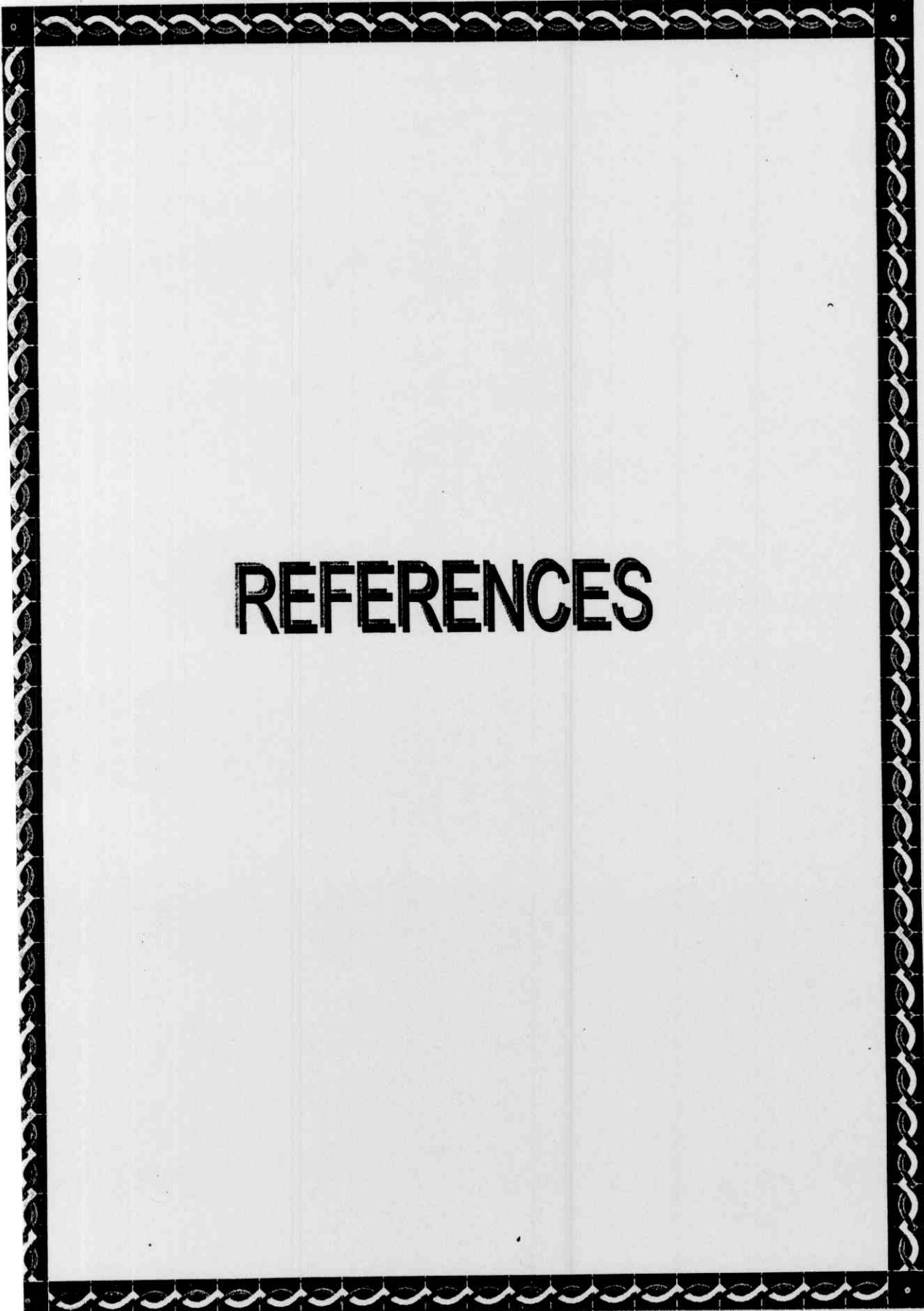




REFERENCES

2000-2001
2002-2003

References

- Abhi, H.L.; Nagpal, M.P.; Charma, T. L.; and Grewal, A.S. (1973):** Study on breeding behavior of Murrah buffaloes and their breeding efficiency through artificial insemination under farm conditions. *Indian J. Dairy Sci.*, 26 (2); 107-112.
- Aboul-Ela, M.B. (1985):** Reproductive patterns and management in the buffalo International symposium on the constraints and possibilities of Rumanan production in the dry subtropics, Cairo, Egypt, 5-7 Nov., PP. 174-179.
- Aboul-Ela, M.B.(1988):** Reproduction patterns and mangement in the buffalo. Intr. Symposium on the Constraints and Possibilities of Ruminant Production in the Dry Subtropics, Cairo, Egypt, 5-7 Nov.,PP.174-179.
- Aboul-Ela, M.B. (1992):** Oestrous detection and reproductive management of buffaloes raised in small holding in Egypt. A survey study. International symposium on prospects of buffalo production in the Mediterranean /Middle East. Cairo, Egypt, 9-12 Nov., PP 381-384.
- Aboul-Ela,M.B.;El-Keraby,F.E.and Chesworth,J.M.(1983):** Seasonal variation in the LH release in response to GnRH in the buffalo. *Anim. Reprod. Sci.* 6:229-232.
- Aboul-Ela, M. B.; El-Keraby, F. E. and Khattab, R.M. (1985):** Effect of GnRH treatment on post-partum, resumption of ostrus and ovulation in buffalo. *Buffalo, J.* 1:61-69.
- Aboul-Ela , M.B ; Khattab ,R.M.;EL – Keraby , F.E.; El – Shafie ,M.M. and Bedeir , L.H . (1987):** Patterns of ovarian and oestrous activity and induction of cyclic activity during the Post – Partum period in Egyptian Buffaloes *Porc. Final Res . Coord. . Meet optim.,Graz. Anim . Prod . Medit North African Regions with Aid of Nucl . Techn ., Rababt , Morocco 23-27,PP. 239 – 254.*

- Aboul-Fadle, S.W.; Fahmy, M.F.A. and El-Shafey, S.M. (1974):** Histological studies on the ovaries of the Egyptian buffalo with special reference of the corpus luteum. *Zentabl Vet. Med.* 21, 581-591.
- Afify, A.M. (1988):** Factors affecting conception following artificial insemination in buffalo. Ph.D.Thesis, Fac. Vet. Med. Cairo Univ. Egypt.
- Afify, E.A.; Kalil, M.H.; Bedeir, L.H. and Zeidan, S.M. (1992):** Genetic analysis of reproductive traits in Egyptian buffalo Egypt. *J. Anim. prod.*, 29 (2) : 139-154.
- Afify, Y.A.; El-Ashry, M.A.; El-Fouly, M.A.; Kirrella, A.K. and Abou-Selim, I.A. (1978):** The effect of different plans of nutrition on growth and reproductive performance of buffalo heifers. *Agric. Res. Rev.*, 56 (7): 39-49.
- Agarwal, S.B.; Patel, R.K. and Sherma, K.N.S. (1987):** Estimates of performance characteristics of Murrah buffaloes under village conditions. *Ind. J. Dairy Sci.*, 40:200-210.
- Ahmed, N.; Irfan, M.; Chaudhry, R.A. and Ahmed, W. (1983a):** Reproductive efficiency of Nili-Ravi buffaloes in Pakistan. *Indian J. Anim. Sci.*, 53 (10):1066-1068.
- Ahmed, N.; Chaudhry, R.A. and Ahmed, W. (1983b):** Post-partum oysters interval of Nili -Ravi Buffaloes in Pakistan. *Egyptian J. Anim. Prod.*, 23(1-2): 27 - 32.
- Alam, M.G.S. & Ghosh A. (1991):** Reproductive patterns of rural buffalo (*Bubalus bubalis*) in Bangladesh. Third world Buffalo Congress, Varna, Bulgaria, May 13-18, Vol. III, PP. 683-688.
- Anisou, A.A. (1968):** Conception rate in cows in relation to time and frequency of insemination, *Vetsi : Akad. Navuk Bssrser, Sel. Skohasp. Navuk*, 4:77-78.,140.
- APRI, (1997):** Animal production Recearh Institute. Minist. Agric.: Animal and Poltariy Nutration (In Arabic), Giza, Egypt, 1997.

- Arora, R.C. & Pandey, R.S. (1982):** Current research status of buffalo reproductive endocrinology. *World Rev. Anim. Prod.*, 18 (2): 15-23.
- Arora, S.P. (1978):** Recommendation in buffalo reproduction and A.I. PP.54. Proceeding of the Seminar Sponsored by FAO/SID,GOVT.of Indian, held at National Dairy Research Institue , Karnel , 132001- India .
- Ashmay, A.A. (1991):** Repeatabilty of productive traits in Egyptian buffalo. *J. Anim.Breed. Gent.*, 108: 182-186.
- Ashmawy, A.A. & Hamed, M.K. (1988):** Effect of days open on lactation yield characteristics in Egyptian buffaloes. *J.Agr. Sci., Mansoura Univ.* 13:723-728.
- Bahga, C.S. & Gangwar, P.C. (1988):** Seasonal variation in plasma hormones and reproductive efficiency in early post –Partum buffalo. *Theriogenology*, 30: 1209-1223.
- Balachandran, S.; Kalatharan, J.; Thangaraju, P. and Krishna Murthy, U.S. (1983):** Influence of season and stage of oestrus on the conception rate in crossbred cattle . *Cherion* 12 (2) 104-106.
- Barkawi, A.H.(1981):** Ovarian activity and oestrus detection in Egyptian buffalo. M.Sc. Thesis., Fac. of Agric.,Cairo Univ.Egypt .
- Barkawi, A.H. (1984):** Pre – Partum and post -partum hormonal pattern and reproductive activity in Egyptian buffaloes. Ph. D. Thesis, Fac. Agric, Cairo Univ., Egypt.
- Barkawi, A.H. (1993):** Post-partum reproductive pattern of sukling and non-sukling Egyptian buffaloes. *Egypt-J.Anim. Prod.*30:129-142.
- Barkawi, A.H. & Aboul-Ela, M.B. (1987):** Response of acyclic and cyclic buffaloes to treatment with Gn RH analogue *Buffalo J.*3:169-179.
- Barkawi, A.H.;El-Shafie, M.M.; Mekawy,Y.and Aboul-Ela, M.B. (1986):** The use of serum and milk progesterone concentration to monitor post-partum ovarian activity in Egyptian. buffaloes. *Buffalo J.*, 2:125-134.

- Barkawi, A.H.; Bedeir, L.H. and El-Wardani, M.A. (1993):** Sexual behavior of Egyptian buffalo in post – partum period. *Buffalo J.* 3: 225-236.
- Barkawi, A.H.; Farghaly, H.M. and El-Borady, A.M. (1995):** Effect of treatment with, GnRH analogue on post – partum reproductive performance of suckling Egyptian buffalo cows. *Buffalo J.* 11:117-123 .
- Barkawi, A. H.; Khattab, R. M. and EL-Wardani, M. A. (1998):** Reproductive efficiency of Egyptian buffalo in relation to oestrous detection systems. *Anim. Reprod. Sci.*, 51, 225-231.
- Barkawi, A.H.; Khattab, R.M. and El-Wardani, M.A.(1998) :** Reproductive efficiency of Egyptian buffalo in relation to oestrous detection systems. *Anim. Reprod. Sci.*, 51, 225-231.
- Baruselli, P.S.; Viana, W.G.; Mucciolo, R.G.; Oliveira, C.A. and Madureira, E.H. (1994):** Ovarian activity in buffaloes. *Proc . Ivth. World Buffalo Con.*, III San Paulo, Brazil, 1994.
- Basu, S.B., & Ghai , A.S.(1978):** A note on the lactation length of Murrah Buffaloes. *Indian J. of Anim . Sci.*, 48 (12): 908-909.
- Basu, S.B; Sarma, P.A. and Nagarcenkar,R. (1978):** Gestation period and birth weight in Murrah buffalo. *Indian J.Dairy Sci.* 3 (3) 297–299.
- Batra, S.K.; Arora, R.C.; Bachlaus, N.K.; and Pandey, R.S. (1979):** Blood and milk progesterone in pregnant and non-pregnant buffalo. *J. Dairy Sci.*, 62 (9): 1390–1393.
- Bazer, F. W.; Thatcher, W.W.; Hansen, P.J.;Mirando, M. A.; Ott, T. L. and Plante, C. (1991):** Physiological mechanisms of pregnancy recognition in ruminants.*J. Reprod. Fert. Suppl.* 43, 39-47.
- Bedeir, L.H.; El-Itriby, A.A. and Moustafa, A.R. (1979):** Relationship between body weight and age at first fertile service in Buffaloes and Friesian cattle. *First Conference on Role of the (A.R.E.) Increasing Food Production .Agr. Res. Center.Giza,Egypt.*

- Bhalaru, S.S.; Dhillon, J.S. and Tiwana, M.S. (1981):** Effect of body weight at calving on body – weight changes during early lactation and post-partum reproductive performance in buffaloes. *J.Airic. Sci., Cambridge*, 97 (3); 595-601 .
- Bhattacharya, P. & Prabhu, S.S. (1954):** Field application of artificial insemination in cattle. *Ind. J.Vet.Sci.* 25: 263-276.
- Bidarkar, D.K.; Sandeep, G.; Sastry, N.S.R and Georgie, G.C. (1987):** Teaser bull behaviour in response to estrous symptoms of buffalo heifers cycling in summer. *A: Notes . Indian J.Anim . Prod . and Management.* 3 (1): 30-31.
- Borady, A.M.; Mourad, H.M.; El-Shafie, M.M.,Bedeir, L.H. and Khattab,R.H.(1982):** Seasonal variation in the reproductive activity of Egyptian buffaloes. *6th Int. Anim. And Poul. Prod. Zagazig*, Sept. 21-23, 1982,210-230.
- Borghese, A.; Baril, V. L.; Terzano, G.M.; Annicchiarico, G.; Debenedetti, A and Malfatti, A. (1992):** Anoestrous length in Italian buffalo cows. *Note I. International symposium on prospect of buffalo production in the Medit. Middle East. Cairo, Egypt, 9-12 Nov., PP. 389-392.*
- Campanile, G.; Shehu, D.; Esoosito, L.; Dipaio, R.;Montemurro, N.; Zicarelli, L.; Terzano, G.M. and Borghese, A.(1991):** Onset of ovarian activity in Italian buffalo heifers. *3rd World Buffalo Con. Buigaria, Verna, May, 13-1991,III,666-671.*
- CAPMS, June (1990):** Central Agency for Public Mobilization and Statistics. Egypt. Annual Statistics Book.
- Cavestany, D.; El-Wishy, A.B. and Foote, R.H. (1985):** Effect of season and high environmental temperature on fertility of Holsten cattle. *J. Dairy Sci.*, 68 (6): 1471-1478.
- Chaudary, S.K. & Purbery, L.N. (1983):** Oestrus and its relation to conception in rural cattle. *Ind. J. of Animal Reproduction*, 4 (1): 21-23.

- Chaudhry, M.A.; Pasha,T.N. and Iqbal, J. (1988):** Factors influencing the length of post-partum estrus Nili-Ravi buffaloes (*Bubalus bubalis*). *Pakist. Vet J.* 8:105-111.
- Chaurasia, S.K.; Dhingra, M.M. and Gurung, B.S. (1985):** Studies on first calving interval in Murrah buffaloes *livestock Adviser*,10 (9): 25-27.
- Corah, L. R.; Qucaly, A. P.; Dun, T.G. and Kaltenbach, C.C. (1974):** Pre-partum and post-partum levels of progesterone and estradiol in beef heifers fed two levels of energy . *J. Anim. Reprod.*, 5:1-7.
- Cuevas, C.R. & Hagen, D.D. (1966):** Relationship between duration of oestrus and fertility of dairy cows in the tropical zone of Veracruz *Tec. Pecuar. Mex.*, 8:56-60.
- Danell, B.; Gopakumar, N.; Nair M.C.S. and Rajo plan, K. (1984):** Heat detection and symptoms in Surti buffalo breeds *Indian J. Anim. Reprod.*, 5: 1-7.
- Diniz, E.G.; Norte, A.L.; Do. Andrade, V.J.; De. Azevedo, N.A.De. and Fonseca, V.O. Da.(1983):** Effect of time insemination on conception rate in Zebu cows and their crosses. *Arquivo Brasileiro de Medicine Vet. Zootecnie* 35 (6)859-869.
- Drost, M.; Cripe, W. S. and Richter, A. R. (1985):** Oestrus detection in buffalo (*Bubalus bubalis*): use of an Androgenized female. *Buffalo J.* 1 : 159-161.
- Dutta, J.C.; Kakati, B.N.; Rajkonwar, C.K. and Borgohin, B.N.(1982):** Effect of stages of oestrus on conception rate in crossbred cattle *Ind. J. of Anim. Reprod.*, 2 (1): 42-43.
- Eid, N.L. (1988):** Environmental influence on the productive and reproductive performance of the Egyptian water buffaloes. *M.Sc., Theses, Fac. of Agric.,Univ. of Ain – Shams, Cairo, Egypt.*
- El-Fouly, M.A.(1966):** Causes of lowered fertility and infertility in the Egyptian buffalo. *Ph. D. Thesis , Fac., Agric. , Ain Shams Univ., Cairo , Egypt.*

References

- Gupta, L.R.; Sastry, N.S.R.; Yadav, R.S.; Jaiswal, U.C. (1981):** Observation on calving interval of Murrah buffaloes belonging to a medium sized herd. Haryana Agricultural University journal of Research, (1):129-135.
- Gurdial, S. & Singh, G.B. (1985):** Effect of month of calving on post-partum estrus interval and service period in Murrah buffaloes. First World Buffalo Cong. Cairo, Egypt. IV: 960-963.
- Hafez, E.S.E. (1952):** Conception rate periodicity in the buffalo. Empire J.EXP.Agric.21 ;15-20.
- Hafez, E.S.E. (1954):** Oestrus and some related phenomena in the buffalo. J. Agric. Sci., 44:165-170.
- Hall, J.G.; Cecil, Branton, and Stone, E.J. (1959):** Estrus, estrus cycles ovulation time of service and fertility of dairy cattle in louisiana J. Dairy Sci., 42:1086-1094
- Hovius, M. Ph.; Joostern, J.; Reinder,I. M.C.; Klosster, G.G.M.; Elving, L.and Vandewiel, D.F.M. (1985):** Methods of oestrus detection for improvement of artificial insemination in the swamp buffalo – First World Buffalo Congress, Cairo, Egypt , December 29-31, Vol III, PP: 597-603.
- Ibrahim, N.S. (1988):** Puberty and associated phenomena in Egyptian buffaloes. M.Sc. Thesis, Fac. Agric,Ain.Shams Univ. Egypt.
- Jain, A. & Taneja,V.K. (1982):** Effects of non- genetic factors on reproduction and production traits in Murrah buffaloes . Asian j. of Dairy Sci., 1 (2): 123-129.
- Jain, G.C. (1989) :** Reproduction behavior of water buffaloes. 10th work shop on AICRP on Buffalo and the Indo ARE symposium at CIRB , HISAR , INDIA , 1-37.
- Jainudeen, M.R.(1984) :** Reproduction in the water buffalo Post-partum female 10th Inter. Con- Anim. Roprod. and A.I., Illinois, USA.IV:XIV-42 to XIV-49.

- Jainudeen, M.R. (1988):** Reproduction problems of buffaloes in the World. Second World Buffalo Congress , New Delhi. India , December Vol. II, PP: 189-196.
- Jainudeen, M.R.; Tan, H.S. and Bongso, T.A. (1981):** Plasma progesterone profiles in relation to post-partum ovarian activity in swamp buffalo. Proc. of 2nd Cooper-Agree. (On the Use of Nuclear Techniques to Improve Buffalo Production) Asia Thailand , 159-171.
- Jainudeen, M.R.; Bongso, T.A. and Tan, H.S. (1983):** Post-partum ovarian activity and uterine involution in the suckled swamp buffalo (*Bubalus bubalis*) Anim. Reprod. Sci., 3: 181-190.
- Janakiraman, K. (1978):** Control and optimizing of reproductive cycle in buffalo. Proceeding of the seminar of buffalo reproduction and A.I., Kanakal , India , December 4-15, Vol . 11, 220-225.
- Janakiraman, k. (1981):** Certain aspects of puberty, pregnancy and Post-partum in water buffalo. Proc. 2nd coord. meet. of regional cooperative . Agreement on the use of nuclear techniques to improve domestic Buffalo production In Asia, Bangkok, Tiland, 174-192 .
- Jankiraman, K. (1988):** Some aspects of reproductive problems in buffaloes. Second World Buffalo Congress , New Delhi ; India , Des., Vol , II, PP: 264 –270.
- Johri, D.C. & Bhat, P.N. (1979):** Effect of genetic and non genetic factors on reproductive traits in Indian buffaloes. Indian J. Anim. Sci.; 49: 1-6.
- Joosten, T.; Hovius, M.Ph. J.; Klooster, G.G. M.V.T.; Reinderes, J.M .C Werenga , H.K. and Usamagornkul, S. (1985):** Reproduction of the bubalis In Proceeding of the First Joint Conference of the Association of the Veterinary Held at the Regent Kuala Lumpur , Malaysia of Egri. 162-169.

- Kamonpatana, M. (1985):** Role of hormonal research for the future development of reproductive technology. First World Buffalo Congress Cairo, Vol, III: 488-496.
- Kamonpatana, M.; Vadewiel, D.F.M.; W.; Leenanuruksa, D.; Ngramsuiryaroj, C. and Usanakorunkul, S. (1979):** Ousters control and early pregnancy diagnosis in the Swamp buffalo: Comparison of enzymeimmunoassay and radioimmunoassay for plasma progesteron .Theriogenology,11: 399-409.
- Kanai, Y. & Shimizu, H. (1983):** Characteristics of the estrous cycle of the swamp buffalo under temperte conditions Theriogenology 19 (4): 593-603.
- Kanai, Y. & Shimizu, H. (1984):** Plasma concentration of LH, progesterone and oestradiol during the oestrous cycle in swamp buffaloes. J. Reprod. Fert., 70:507-510.
- Kanai, Y.; Abdul-Latif, T.; Ishikawa, N. and Shimizu, H. (1990):** Behavioral and hormonal aspects of the estrous cycle in swamp buffaloes veered under temperature conditions. Proc. Final Res. Coord. Meet, IAEA, Vienna, 113-120.
- Kanchev, L.N.;Vlahov, K. and Denev, A. (1993):** Reproductive performance of Kiverine buffalo. Inter. Symp. On prospects of buffalo production in the Medit. / Middle East. Cairo, Egypt, 9-12 Nov.
- Kaur, H. & Arora, S.P. (1982):** Progesterone levels in peripheral Plasma of anoestrus and cyclic buffaloes influenced by level of nutrition . Buffalo Seminar on Reproduction and Meat production Tanuku, India, January, 15-17,PP no.2.
- Kaur, H. & Arora, S.P. (1984):** Estimating production using specific days of blood plasma levels in cycling buffaloes.J.Nuclear Agric . Biol.,B 13-.83-86 .
- Khalil, M.H.; Mourad, K.A.; Mohamed, M.M. and Qwen, J.B. (1990):** Genetic and phenotypic evaluation for reproductive performance of Egyptian buffaloes . Anim . Prod, 51.

- Khattab,A.S.; Mourad,K.A. and Ashmay, A.A. (1985):** Milk production of the first lactation as affected by age at first calving in Egyptian buffalo.J.Agric. Res. Tanta Univ.11: 619.
- Khattab, R.M. (1980):** Study of some reproductive performance of Egyptian buffalo heifers. Ms.c. Thesis , Fac. Agric., Cairo Univ., Egypt .
- Khattab, R.M. (1986):** Studies on the reproduction of farm animals. Causes and treatment of post-partum reproductive disorders in Egyptian buffaloes .Ph.D. Thesis , Fac. Agric ., Tanta Univ ., Egypt .
- Khattab, R.M. Barkawi, A.H. and Abou-Ela, M.B. (1988):** Patterns of ovarian and oestrous activity in problem buffalo monitored by Plasma progesterone concentration . Buffalo J.4 (2):173-181.
- Khattab, R.M.; Aboul-Ela, M. B.; Barkawi, A. H. And Abdelaa,,A.E.(1990):** Physiological causes influencing open period in Egyptian buffaloes of hot season calvers. Buffalo J. 2, 153 - 160.
- Kirrella, A.K. (1977):** Factors affecting the length of calving interval in herd of experiment buffalo M.Sc Thesis Fac. Agric. Univ. Ain- Shams, Cairo , Egypt
- Kotby, E.A.; Bedier, L. H. ;El -Sobhy, H.E. and Eid, L.N. (1988):** The reproductive performance of Egyptian buffaloes as influenced by some environmental factors. Proceeding of the 1st Conference of the Agricultural Development Research, Cairo Egypt , PP:1-11.
- Luktuke, S.N. & Rao, A.S.P. (1962):** Studies on biometry of the productive tract of the buffalo cow. Ind. Vet. Sci.,32,106-111.
- Luktuke, S.N. & Roy,D.J. (1964):** Studies on post-partum oestrus in Murrah buffaloes Indian J.Vet . Sci , 34(3) : 166-170 .
- Madan, M.L. (1985):** Endocrine control of reproduction in buffaloes. First World Buffaloes. Indian Congress, Cairo, Egypt, December27-31,Vol.III. PP.516-526.

- Mc Cool, C.J.; Carney, J.V.; Jayawardhana, G.A.; Wolfe, S.G.; Simpson, M. and Olm, T. (1989):** Oestrus detection in oestrus-synchronized swamp buffalo under semi extensive management conditions. Buffalo J., 2: 155-168.
- Mc Cool, C.J.; Townsed, M.P.; Wolfe, S.G. and Entwistle, K.W.(1987):** Endocrinological studies on pregnancy, post-partum anoestrus and seasonal variation of ovarian activity in Australian sawamp buffalo cow Buffalo J., 1: 67-72.
- Metry, G.H.; Wilk, J.C.; Dowell, M.C. and El-Rigalaty, H.A.(1994):** Factors affecting the performance of Egyptian buffalo. Anim. of Agric. Sci., Moshtohor, 32:827-841.
- Mohamed, A. A.(1974):** Physiological changes in the reproductive organ of buffaloes from parturition to conception . Ph.D. Thesis, Fac. Agric, Al-Azhar Uni, Egypt .
- Mohamed, A.A. & El-Sheikh, A.S. (1983):** Post-partum ovulation in a herd of Egyptian buffalo. Ind. J. Anim., Sci., 53 (5):485-487.
- Mohamed, A. A.; El-Ashry, M. A.; Amin, S.O., El-Serafy, A.M. and Khattab, M, K. (1979):** Reproductive performance of early mated buffalo heifers raised on milk replacers. Al-Azhar Aric., Res. Bulletin, No.8.
- Mohamed, A. A.; El- Ashry, M.A. and El-Serafy, A.M. (1980):** Reproductive performance of buffalo heifers bred at young age . Ind. J. Anim. Sci., 50: 8-10.
- Mohamed, H.B. (1995):** Productive and reproductive performance of the Egyptian buffaloes as effected by feeding level during mid-pregnancy and early stage of lactation. M.Sc.Thesis , Fac. Agric., Moshtohor, Zagazig Univ .
- Momongan, V.G.; Sarabia, A.S.; Roxas, N.P.; Palad, O.A.; Obsioma, A.R.; Nava, Z.M. and Bel-Barrio, A.N. (1990):** Increasing the productive efficiency of carabaos under small holder farming systems. Res., Coord. Meet. "Dome. Buffalo Prod. Asia "IAEA, Vienna, 167.178.

- Mostageer, M.A.; Morsy, M .A. and Sadek, R.R. (1981):** The production characteristic of a herd of Egyptian buffaloes. *Sonderdruck Zeitschrift Fur Tung und Zuc Htung Sbiologie*, 98: 220-236 .
- Moubarak, A.M.(1969):** Anatomical studies of the femal genitalia of buffalo. *Vet. Med. J. Giza (Egypt)* 16,91-118.
- Mourad, K.A. (1978):** Some productive and reproductive characters of the Egyptian buffaloes. M.Sc. Theses, Faculty of Agric . Cairo Univ., Cairo, Egypt.
- Mourad, K.A.; Kattab, A.S. and Ibrahim, M.A.R. (1989):** Effect of genetic and non genetic factors on reproductive traits in Egyptian buffaloes *Buffalo Bulletin*, March (1989) ,8(1):9-17.
- Nagarcenkere, R. (1978):** Seminar on reproduction buffalo reproduction and A.I; proceeding of the seminar sponsored by FAO/SIDA /GOVT of India, held at National / Dairy Research Institute, Kornal, /3200/India, (December, 4-15,1978) PP.54.
- Naidu,K.N.(1983):** Effect of season of calving on the calving subsequent reproduction behaveiour in buffalo. *Indian Vet.Med. J.*, 60 (1) 34-37.
- Nanda, A.S.; Takkar, O.P. and Sharma, R.D. (1984):** Serum progesterone level as an index of pregnancy in buffalo. *Anim.Rprod. Sci.*, 7:447-450.]
- Nazir, F.; Chaudhry, R.A.; Rahil , T. and Chohan, K.R. (1994):** Effect of prostaglandin F2 alpha at early post – partum on uterine involution and subsequent reproductive performance in suckled Nili-Ravi buffaloes – *Buffalo J.* 3:269-271.
- Nebel, R. L. & Mc Gillard, M. L. (1993):** Interaction of high milk yield and reproductive performance in dairy cows. *J. Dairy Sci.* 76:3257-3268.
- Niansheng, Y.W. & Peichien,C. (1988):** Peripheral plasma levels of progesterone and 17 B oestradiol during normal and low breeding seasons in Chinese swamp buffalo.*J.2:217-223.*
- Nigm, A.A.; Soliman, I.; Hamed, M.K. and Abd El-Aziz, A.S. (1986):** Milk production and reproductive performance of Egyptian cows and

- buffaloes in small livestock holdings. 7th Conference of Animal Production, Cairo, Egypt, Sept. 16-18, PP: 290-304.
- Nordin, Y. & Jainudeen, M.R. (1994):** Influence of normal and limited suckling on body weight performance and post-partum ovarian activity in sawmp buffaloes. *Mardi Res. J.* 22: 97-107.
- Oloufa, M.M. (1960):** Reproductive efficiency in Egyptian buffaloes and cattles. *Bull. Fac. Agric., Cairo Univ.*, 14: 3-12.
- Oloufa, M.M. (1968):** Some aspects of reproductive efficiency in Egyptian cattle and buffalo. *Vet. Med. J., Cairo Univ.* 15:173-177.
- Oloufa, M.M. (1979):** Buffaloes as producers of meat and Milk. *Egyptian Journal of Anim. Production.* 19 (1):1-10.
- Omar, S.S. (1988):** Relationship between some behavioural aspects and both productive and reproductive traits in buffaloes and cattle. Ph. D. Thesis, Fac. Agric., Minufia Univ., Shebin- El-Kom, Egypt.
- Osman, A.M. (1985):** Breeding buffaloes in the New Valley area of Egypt (pattern of production and reproduction). *Assuit Vet. Med. J.* 14(28):187-201.
- Osman, K.T. (1996):** Some reproductive aspects of Egyptian buffalo bulls. Ph. D. Thesis, Fac. Agric. Ain-Shams Univ.
- Osman, K. T.; El-Shamma, I. S. ; Ibrahim, M.A. and Gabr, S. (2000):** Impact of Zinc supplement on some reproductive traits in Egyptian buffalo bulls. *Proc. 3rd All Africa Con. On Anim. Agric. & 11th Conf. of the Egypt. Soc. Of Anim. Prod., Alex., Egypt, 6-9 Nov., 2000.*
- Otzel, G.R.; Ball, L.; Mortimer, R.G. and Olson, J.D. (1983):** Pregnancy palpation and therapeutic . Abortion in cow manual, *J. of The Society for Theriogenology.* Vol. XIV.
- Pahawa, G.S. & Pandey, R.S. (1983):** Hormonal changes in post – partum blood and milk of buffaloes (*Bubalus Bubalis*). *Anim. Prod.*, 37:237-246.

- Pandey, R.S. (1979):** Hormonal status of female and induced breeding in Murrah Buffaloes Proceedings of the Seminar of Buffalo Reproduction and A.I., Karnal, India, Dec., 4-15, Vol. II, PP:185-209.
- Passos, P.B. Dos. (1985):** Efficiency of inseminations carried out 24 hours after oestrous detection in zebu cows. Arquivo Brasileiro de Med Vet. Zootenia 37 (4) 392-397.
- Patel, J.M. & Sarma, P.A. (1982):** Note on oestrous behaviour during winter in buffalo. Ind. J. Anim. Sci., 52(6):437-438.
- Peeva, T. S.; Danev, A. and Polikronov, O. (1988):** Effect of some factors on the interval from calving to insemination, and on service period in buffalo. Zhivotnor dni auki (1988) 25 (2) (A.B.A. 56 (11) 6844.
- Pei-Chien, W. & Chi-Shang, C.(1985):** A study on the reproductive performance of indigenous buffalo cows in Guangxi, China. First World Buffalo Congress, Cairo, Egypt, Dec., 27-31, Vol.IV, PP.955-956.
- Perera, B.M. (1981):** The use of hormone measurement for studying reproductive patterns of buffaloes in Srilanka, and Coordination Meeting of the Regional Cooperative Agreement on the use of Nuclear techniques to improve Domestic Buffalo production in Asia, Bangkok, Thailand March 2-6, part I, PP: 149-158.
- Perera, B.M.; Desilva, L. N. and Karunaratne, A.M. (1984):** Studies on reproductive endocrinology and factors influencing fertility in dairy and drought buffaloes in Srilanka. International Atomic Energy Agency, 13-28 (A.B.A., 1984, 53, 6358).
- Peters, A.R. & Lamming, G.E. (1984):** Reproductive activity of the cow in the post-partum period. II-Endocrine patterns and indication of ovulation. British Vet. J., 140 : 269- 280.
- Porwal, M.L.; Singh, M.P. and Karandikar, G.W. (1981):** Studies on reproductive performance of Murrah buffaloes. Indian Vet.J. 58:295-299.

- Ragab, M.T. & Asker, A.A. (1951):** Factors influencing length of gestation period in Egyptian cattle and buffalo. *Ind. J. Dairy Sci.*, 4:159-169.
- Raizade, B.C. & Pandey, M.D. (1981):** Buffalo reproduction. 2-Breeding of off season and normal season calves. *Ind. J. Anim. Sci.*, 51 (2):164-168.
- Randhawa, G.C.; Singh, G.B.; Sharma, S.S. and Sharma, D. (1982):** Studies on estrus symptoms in buffalo heifers. *Buffalo Seminar on Reproduction and Meat Production*, Tanuka, India, Jan 15-17, PP 14.
- Rao, N. M. & Kodagali, S.B. (1983):** Onset of oestrus, oestrus signs and optimum time of artificial insemination in surti buffalo. *Indian J. Anim. Sci.*, 53 (5): 553-555.
- Rao, B.R.; Patel U.G. and Tamhan, S.S. (1973):** Studies on the reproductive behaviour of surti buffalo. *The Ind. Vet. J.*, 50:257-263.
- Rao, V.P.; Reddy, D.B. and Gopalakrishna, T. (1982):** Note on oestrus cycle and time of ovulation in Murrah Indian J. Anim. Sci. 52(5):354-355.
- Reddy, A.O.; Tripathi, V.N. and Raina, V.S. (1986):** Factor affecting post-partum reproductive efficiency in Murrah buffaloes. *J. Anim. Sci.* (56): 1224-1228.
- Rodriguez, T.; Verde, O. and Espinoza, J. (1980):** Effect of time insemination clitoral massage season, breed and other factors in cattle. In 9th International congress on animal reproduction and artificial insemination. 16th 20th June 1980 III Symposium (Free communications) Madrid Spain., Editorial Garis., 172 I, SBN 84-739-045-1.
- Roy, A.; Raizada, B.C.; Tewari, A.B.L.; Pandey, M.D.; Yadav, P.C. and Sengupta, B.P. (1968):** Effect of management on the fertility of buffalo cows bred summer. *Ind. J. Vet. Sci.*, 38:554-560.
- Sadek, R.R. (1984):** Studies on genetic and environmental factor affecting the milk production of the Egyptian buffaloes. Ph. D. Thesis, Fac. Agric., Cairo Univ., Egypt.

- Said, M.S.; Talaat, M.A.; El-Fadaly, M.A. and Saleh S.M.(1985):** Feasibility of Breeding Egypt Buffaloes and Friesian Cattle in Military Farms . First World Buffalo Congress. 2:329-342.
- Salem, A.Y. (1983):** Effect of non – genetic factors on milk yield of buffalo in Egypt . M.Sc.Theses, Faculty of Agriculture, Kafr-El-Sheikh, Tanta, Uni., Egypt.
- SAS (1995) :** SAS User's Guide: Statistics, SAS Institute, Cary, NC.
- Sastry, N.S.R.; Juneja, L.J.; Yadav, R.S.; Gupta, L.R.; Tomas, C.K. and Tripathi, (1981):** Effect of provision during summer of extra shelter and sprinkling water on young buffalo heifers on their later productive and reproductive functions. Ind. Vet. J., 58 : 753-754.
- Sastry, N.S.R.; Juneja, L.J.; Yadav , R.S.; Gupta, L.R. (1982):** Studies on components of calving interval of Murrah buffalo . Haryana Agric. Univ. J. of Res., 12 (1): 6-12.
- Seren, E.;Parmeggiani, A.; Zicrelli, I. Montemurro, N.; Facelli,C. and Terzano, G. M. (1992):** Pre-oestrous endocrine change in Italian buffaloes. International Symposium on prospects of buffalo production in the Mediterranean Middle East Cairo, Egypt. Nov. 4-12, PP;393-396.
- Shafie, M.M.; Mourad,H.; Barkawi, A.; Aboul-Ela, M.B.and Mekawy, Y. (1982):** Serum progesterone and oestradiol concentration in the cyclic buffalo. Tropical Anim.Prod.,7(4) : 283-289.
- Shalash, M.R. (1958):** Phsiology of reproduction in the buffalo cow . Inter., 3: 425- 432.
- Shalash, M.R.; Rakha, A.M. and El-Dessouky, F.J. (1969):** Some productive aspects of the buffalo cow. III Symp. Inter. Zootec.,611-616 (A.B.A., 37 : Abstr-No 3403).
- Sharma, A. & Basu, S.B.(1986):** Optimization of breeding and management variables for maximizing life time milk production and profit in Murrah buffaloes. Ind. J. Amin. Sci., 56 (1): 46-71.

- Shimizu & Kanai (1985):** Endocrinology of oestrous in swamp buffalo. 1st World buffalo Congress, Cairo, Egypt, Vol. III, 554-556.
- Shrivastava , H. K. & Kharche, K. G. (1986):** Studies on incidence of normal and abnormal cycling, post-partum estrus interval, frequency of estrus and calving in buffaloes, livestock adviser, 11 (8): 23– 26.
- Shukla, K.P. & ,Gajbhiy, P. M. (1986):** Report on the breed characteristic performance traits of Jaffrabadi buffalo.(Buffalo Bulletin) 5 (1): 6-8. (A.B.C,54: Abstr. No. 7182).
- Singh, G. & Singh G. B. (1985):** Effect of month of calving of post partum oestrus interval and service period in Murrah buffalo. First World Buffalo Congress, Cairo, Egypt, Desember 27-31 Vol., PP. 960-963.
- Singh, G. B.; Dugwekar, Y.G.; Sharma, R.D.; Chanhani, F.S.and Singh, M. (1979):**Treatment of sub oestrus buffalo with prostaglandin F2 α . Vet.record.,101: 412– 413.
- Singh, M. & Mishra, R.R. (1983):** Patterns of reproductive behaviour in Murrah buffalo. In annual report (1982) National Dairy Research Institute karnal , India 71-72.
- Singh,G.;Singh,G.B.; Sharma, S.S. and Sharma, R.D.(1984):** Studies on oestrous symptoms of buffalo heifers. Theriogenology. (21) (6): 849 – 858.
- Soliman, F.A.; Nasr, H.; Rizk, A.M.; Fayez, M., Salah, S.Y.; El- Fadaly, M.A. and Ahmed, H.A. (1981):** Levels of oestrogens, progestins, TSH,T3 and T4 in the serum of buffaloes during the oestrous cycles and post-patum period. Vet., J. Egypt, 29: 37-50.
- Tailor, S.P. & Jain, L.S. (1986):** Factors affecting reproduction traits in medium sized buffalo. Livestock Adviser. (12): 45-48.
- Timms,L.L.(1985):** Estrous (heat) Detection. In: Dairy series: Reproduction Cooperative Extension and service, Iowa State Univ. ,USA.
- Tomar,N.S.(1966):** Effect of the season of insemination on conception rates in Haryana cows and Murrah buffaloes.Ind. J. Dairy Sci., 19:14-17.

- Usmani, R.H. (1983):** Detection of estrus in dairy buffalo in reproduction in female dairy buffalo. Publication N:95, West Virginia Univ. Morgantown:18-35.
- Usmani, R.H.; Ahmed, M.; Inskip, E.K.; Dailey, R.A.; Lewis, P.E. and Lewis, G.S. (1985) :** Uterine involution and post-partum ovarian activity in Nili-Ravi buffaloes. *Theriogenology*, 24: 435-448.
- Usmani, R.H.; Lewis, G.S. and Nazir, N.A. (1987):** Factors affecting length of gestation and birth weight of Nili-Ravi buffalo. *Animal Reproduction Sci.*, 14 (3): 195-201.
- Vale, W.G.; Weitze, K.F. and Grunert, E. (1984):** Estrous behaviour and ovarian function in water buffalo cows (*Bubalus bubalis*) in under Amazon condition. 10th International Congress of Animal Reproduction and A.I., Illinois, USA, June 10-14 Vol. II, paper no.154.
- Wongsrikeao, W.; Boon, E. K. L.; Wanapat, M. and Taesakul, S. (1990):** Influence of nutrition on suckling patterns on the post-partum cyclic activating of swamp buffaloes. Res. Coord Meet. "Domestic Buffalo Prod. in Asia", IAEA, Vienna, 121-131. .
- Youssef, H.A.H. (1992):** Some reproductive aspects of female buffaloes fed on dry feeds. Ph.D. Thesis, Fac: Agric., Ain Shams- Univ., Egypt. 89.
- Youssef, R.H. Mourad, K.A. and El-Taweel, A. (1988):** The effect of post-partum service interval and early breeding on the reproductive efficiency and milk production in male buffalo J., 1:77-89.
- Zeidan, S.M. (1990):** Study of reproductive performance of Egyptian buffaloes. Thesis M.Sc. Fac. of Agri. at Moshtohor, Zagazig Univ.