

REFERENCES

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- Adron, J. W.; Blair, A.; Cowey, C. B. and Shanks, A. M. (1976): Effects of dietary energy level and dietary energy source on growth, feed conversion and body composition of turbot, (*Scophthalmus maximus* L). Aquacult., 7 : 125 – 132.
- Alexis, M.N. (1990): Comparative evaluation of soybean meal and carob seed green meal as dietary ingredients for rainbow trout fingerlings. Aquacult., 3: 235-241.
- Almazan, G. J.; Pullin, R. S. V.; Angeles, A. F.; Manalo, T. A.; Agbayani, R. A. and Trono, M. T. B. (1986): *Azolla pinnata* as dietary component for Nile tilapia *Oreochromis niloticus*. In first Asian Fisheries Forum, Maclean, J. L., Dizon, L.B. and Hosillos, L. V. (eds), Asian Fisheries Society, Manila, Philippines, pp. 523-528.
- Anderson, J.; Jackson, A. J.; Matty, A. J. and Capper, B. S. (1984): Effects of dietary carbohydrate and fiber on the tilapia. *Oreochromis niloticus* (Linn). Aquacult., 37: 303 -314.
- A.O.A.C. (1980): Association of Official Analytical Chemists. Official Methods of Analysis. Washington. D.C. 397pp.
- Appler, H. N. and Jauncey, K. (1983): The utilization of a filamentous green algae (*Cladophora glomerata* (L) kulzin) as protein source in pelleted feeds for sarotherodon. (*Tilapia nilotica*) fingerlings. Aquacult., 30 : 21-30.

- Asgard, T and Austreng, E. (1981): Fish silage for salmonids a cheap way of utilizing waste as feed. *Feedstuffs*, 53 : 22 – 24.
- Atack, T. H.; Jauncey, K. and Matty, A. J. (1979): The utilization of some single cell proteins fingerling mirror carp (*Cyprinus carpio*). *Aquacult.*, 18: 337 – 348.
- Atack, T. and Matty, A. J. (1979): In "Finfish nutrition and fish feed technology" (J. E. Halver and K. Tiews, eds.), 2: 261-273.
- Atwa, A.M.F. (1997): Studies on fish nutrition – Evaluation of the nutritive value of black meal (*Nigella sativa*) in diets of Nile Tilapia. M. Sc. Thesis, Fac. of Agri., Univ. of Alexandria, 172pp.
- Austreng, E. (1982): *Aktue tfra statens fagtijeneste landbruket* (Hysdyrforsok smotet 1982). Norwegian Agri. Univ., 525pp.
- Balarin, J. D. and Haller, R. D. (1982): The intensive culture of tilapia in tanks, raceways and cages, In, J. F. Muir and Roberts, R. J. (Ed.). *Advances in Aquacult.*, pp. 265-356.
- Balogun, A. M. and Fagbenro, O. A. (1995): Use of macadamia presscaka as a protein feedstuff in practical diets for tilapia, *Oreochromis niloticus* (L.). *Aquacult. Res.*, 26 : 371 – 337.
- Barnes, H. and Folkards, A. R. (1951): The determination of nitrite. *Analyst.*, pp. 96 - 99.
- Bates, R. P.; Knapp, F. W.; Anauza, P. E. (1977): A research note: protein quality of green-mature, dry-mature and sprouted soybeans. *J. Food. Sci.*, 42: 271-272.
- Belal, I.E.H; Owaifier, A. and Al-Dosari, M. (1995): Replacing fish meal with chicken offal silage in commercial *Oreochromis niloticus* (L.) *Feed Aquacult. Res.*, 26: 855-858.

- Bishop, C. D.; Angus, R. A. and Watts, A. (1995): The use of feather meal as a replacement for fish meal in the diet of *Oreochromis niloticus* fry. *Bioresour. Technol.*, 54: 291-295.
- Bligh, E. G. and Dyer, W. T. (1959): A rapid method of total lipid extraction and purification. *Can. J. Biochem. Physiol.*, 37: 911-917.
- Block, R. T.; Durrum, E. L. and Zwelg, G. (1958): A manual of paper chromatography and paper electrophoresis. 2nd ed. Academic press Inc. New York. 128pp.
- Blouth, O. J.; Chareinski, M. and Berlie, H. (1963): A new rapid method for determining tryptophan. *Anal. Biochem.*, 6: 69-70.
- Chiayvareesajja, S.; Wongwit, C. and Tansakul, R. (1990): Cage culture of tilapia (*Oreochromis niloticus*) using aquatic weed-based pellets. In Second Asian Fisheries Forum, Hirano, R. and Hanyu, I. (eds), Asian Fisheries Society, Manila, Philippines, pp. 287-290.
- Chikafumbwa, F. J.; Costa-Pierce, B. A. and Balarin, J. D. (1991): Preference of different terrestrial plants as food for *Tilapia rendalli* and *Oreochromis shiranus*. *ICLARM Aquaphyte*, 4 : 9 – 10.
- Clement, S. and Lovell R. T. (1994): Comparison of processing yield and nutrient composition of culture Nile tilapia (*Oreochromis niloticus*) and channel catfish (*Lactalurus punctatus*). *Aquacult.*, 119: 299-310.
- Conceic, L.E.C.; Verreth J.A.J.; Verstegen and Huisman E.A. (1998): A preliminary model for dynamic simulation of growth in fish larvae: application to the African catfish (*Clarias gariepinus*) and turbot (*Scophthalmus maximus*). *Aquacult.*, 163: 213-233.

- Davies, S. J.; Williamson, J.; Robinson, M. and Bateson, R. I. (1989): Practical inclusion levels of common animal by-products in complete diets for tilapia (*Oreochromis mossambicus*, Peters). In Proc. Third Int. Symp. on Feeding and Nutr. In fish, Toba, Japan, pp. 325-332.
- Davis, A. T. and Stickney, R. R. (1978): Growth responses of *Tilapia aurea* to dietary protein quality and quantity. Trans. Am. Fish. Soc. 107 : 479-83.
- Degani, D.; Ben-Zvi, Y. and Levanon, D. (1989): The effect of different protein level and temperature on feed utilization, growth and body composition of *Clarias gariepinus* (Burc.) Aquacult., 76: 293-301.
- Delahunty, G. and Valming, V. L. (1980): Seasonal relationships of ovary weight, liver weight and fat stores with body weight in the goldfish (*Carassius auratus* L.). J. Fish Biol., 16: 5-13.
- De-Man. J. C.; De. M. and Sharpe, M. E. (1960): Asmedium for the cultivation of lactobacilli. J. appl. Bact., 23 : 130-141.
- De-Silva, S. S. and Perera, M. K. (1985): Effects of dietary protein levels on growth, food conversion and protein use in young *Tilapia nilotica* at four salinities. Trans. Amer. Fish. Soc., 114: 584-589.
- De-Silva, S. S. and Gunasekera, R. M. (1989): Effect of dietary protein level and amount of plant ingredient (*Phaseolus aureus*) incorporated into the diets on consumption, growth performance and carcass composition in *Oreochromis niloticus* fry. Aquacult., 80: 121-133.

- Djajasewaka H. and Djajadiredja, R. (1980): Fish silage as a feed for freshwater fish. In: Fish silage production and its use J. G. Disney, D. James eds., FAO Fisheries Report., 230, Rome, pp.74-76.
- Dong F. M.; Fairgrieve, W. T. and Skonberg, D. I. and Rasco, B. A. (1993): Preparation and nutrient analyses of lactic acid bacterial ensiled salmon viscera. *Aquacult.*, 109 : 351-366.
- Edwards, P. (1987): Use of terrestrial and aquatic macrophytes in aquaculture. In *Detritus and Microbial Ecology in Aquaculture*, 1987, Moriarty, D. J. W. and Pullin, R. S. V. (eds.) ICLARM conference proceedings 14m Manila, Philippines, pp. 311-335.
- El-Ghobashy, A.E. (1990): Biological studies on the western region of Lake Manzalah. Ph. D. Thesis, Fac. Sci. Mans. Univ., Egypt. 279pp.
- El-Sayed, A. F. M. (1987): Protein and energy requirements of *Tilapia zillii*. Ph.D. Thesis, Michigan State Univ., East Lansing, Michigan, U.S.A., 185pp.
- El-Sayed, A.F.M. and Garling DI, Jr. (1988): Carbohydrates-to-lipid ratios in diets for *Tilapia zillii* fingerlings. *Aquacult.*, 73: 3-4, 157-163.
- El-Sayed, A. F. M. (1990): Long-term evaluation of cottonseed meal as a protein source for Nile tilapia *Oreochromis niloticus*.(Lin) *Aquacult.*, 84: 315-320.
- El-Sayed, A. F. M. (1992): Effect of substituting fish meal with *Azolla pinnata* in practical diets for fingerling and adult Nile tilapia *Oreochromis niloticus*. *Aquacult. Fish. Manag.*, 23: 167-173.

- Espe, M.; Haaland, H. and Njaa, L. R. (1991): Note on the amino acid distribution in fish silage layers. *Fiskeridir. SKR*, Emaeping, 4: 127-132.
- Everson, G. J.; Steenbock, H.; Cedrequist, D. C. and Parsons, H. T. (1943): The effect of germination, the stage of maturity and the variety upon the nutritive value of soybean protein. *J. Nutr.*, 27: 225-229.
- Fagbenro, O. A. (1988): Evaluation of defatted cocoa cake as a direct feed in the monosex culture of *Tilapia guineensis* (Pisces: Cichlidae). *Aquacult.*, 73: 201-206.
- Fagbenro, O. A. (1993): Observation on macademia presscake as supplemental feed for monosex *Tilapia guineensis* (Pisces; Cichlidae). *J. Aquacult. Tropics*, 7: 91-94.
- Fagbenro, O. A. (1994): Dried fermented fish silage in diets for *Oreochromis niloticus*. *Israel J. Aquacult., Bamidgeh*, 46 : 140 - 147.
- Fagbenro, O. A. and Jauncey, K. (1993a): Chemical and nutritional quality of raw, cooked and salted fish silages. *Food Chem.*, 48 : 331 – 335.
- Fagbenro, O. A. and Jauncey, K. (1993b): Chemical and nutritional quality of stored fermented silage. *Bioresource. Technol.*, 46 : 207 – 211.
- Fagbenro, O. A. and Jauncey, K. (1994): Chemical and nutritional quality of dried fermented fish silage and their nutritive value for tilapia (*Oreochromis niloticus*). *Animal Feed Sci. Technol.*, 45 : 167 – 176.

- Fagbenro, O. A.; Jauncey, K. and Haylor, G. (1994): Nutritive value of diets containing dried lactic acid fermented fish silage and soybean meal for juvenile *Oreochromis niloticus* and *Clarias gariepinus*. *Aquat. Liv. Resour.*, 7: 79 – 85.
- Fagbenro, O. A. and Jauncey, K. (1995): Water stability, nutrient leaching and nutritional properties of moist fermented fish silage diets. *Aquacult. Eng.*, 14 : 143 – 153.
- Falaye, A. E. (1982): The use of hydrolyzed feather meal alone or in combination with supplemental amino acids as a dietary source for tilapia (*Oreochromis niloticus*). M.Sc. Thesis, Univ. of Stirling, UK., 157 pp.
- FAO, (1983): Fish feeds and feeding in developing countries. UNDPL/FAO, ADCP/ REP/ 83/ 18:97 pp.
- FAO (1996): Aquacult. production statistics 1985-1994. FAO fisheries circular. 815 8 pp.
- FAO (1998). Yearbook of fishing statistics, Catches and landings. 82pp.
- Gallagher, M.L. (1994): The use of soybean meal as a replacement for fish meal in diets for hybrid striped bass (*Morone saxatilis* x *M. chrysops*). *Aquacult.*, 126: 119-127
- Garrod, L. P.; Lambert, H. P. and O'grady, F. (1981): Antibiotic and chemotherapy. 5th ed., Churchill Livingstone, 279 pp.
- Gildberg, A. and Raa. J. 1977. Properties of a propionic acid/ formic acid preserved silage of fish viscera. *J. of the Sci. of Food and Agric.*, 28: 647-653.

- Gomez, E.F.; Lorrage, G. and Kaushik, S. J. (1995): Effects of dietary incorporation of A co-extracted plant protein (rapeseed and peas) on growth nutrient utilization and muscle fatty acid composition of rainbow trout (*Oncorhynchus mykiss*). Aquacult., 113: 339-353.
- Gornall, A.G.; Bardawill, C.L. and David, M. M. (1949): Determination of serum proteins by mean of the biuret reagent. J. Biol. Chem., 177: 751pp.
- Hajen, W.E.; Higgs, D.A.; Beames, R.M. and Dosanjh, B.S. (1993): Digestibility of various feedstuffs by post-juvenile chinook salmon (*Oncorhynchus tshawytscha*) in sea water. 2-measurement of digestibility. Aquacult., 112: 333-348.
- Handel, E. V. (1965): Estimation of glycogen in small amount of tissue. Ana. Biochem., 11: 256-265.
- Hardy, R. W.; Shearer, K. D. and Spinelli, J. (1984): The nutritional properties of Co-dries fish silage in rainbow trout (*Salmo gairdneri*) dry diets. Aquacult., 38: 35-44.
- Harrigan, W. F. (1966): The nutritional requirements and biochemical reactions of corynebacterium bovis, J. Appl. Bact., 29 : 380-393
- Hassanen, G. D. I. (1986): Studies on some appropriate rations for reared fishes in Egyptian fish farms. Ph.D. Thesis, Fac. of Agri. Menoufya Univ., Egypt., 197pp.
- Hassanen, G. D. I. (1988): Influence of cottonseed oil on growth of *Tilapia nilotica* reared in cages. Proc. Zool. Soc. A. R. Egypt., 16: 239-248.

- Hastings, W. H., (1973): Experience relative a la preparation D'Allments Des poissons et al leur Alimentation. Repport prepare pour le project vagional de Recherds et de formation piscicoles, FAO, ACDP/REP./66/054/1pp.
- Hepher, B. and Pruginin, Y. (1981): Commercial fish farming, with special reference to fish culture in Isreal. Inc., U.S.A., 129pp.
- Hossain, M. A.; Nahar, N.; Kamal, M. and Islam, M. N. (1992): Nutrient digestibility coefficients of some plant and animal proteins for tilapia (*Oreochromis mossambicus*). J. Aquacult. Tropics, 7 : 257 – 266.
- Ishak, M. M. (1985): Fish culture in Egypt, especially Muglidae. Kuwait. Bull. of Mar. Sci., 6: 83-93.
- Jackson, A. J.; Capper, B. S. and Matty, A. J. (1982): Evaluation of some plant protein in complete diets for the Tilapia, *Sarotherodon mossambicus*, Aquacult., 27: 97-109.
- Jackson, A. J.; Kerr, A. K. and Bullock, A. M. (1984): Fish silage as a dietary ingredient for salmon. II. Preliminary growth findings and nutritional pathology. Aquacult., 40: 283-291.
- James, M. A.; Layer, K. M. and Nair, M. R. (1977): Proc. Conf. Handling process. Mark. Trop. Fish. Tropical products. Institute, London, pp., 273-275.
- Jauncey, K. (1982): The effects of varying protein level on the growth, food conversion, protein utilization and body composition of juvenile tilapia (*Sarotherodon mossambicus*). Aquacult., 27 : 43-54.

- Jauncey, K. and Ross, B. (1982): A guide to tilapia feeds and feeding. Institute of Aquaculture, Univ. of Stirling. FK9, 4LA, Scotland, U.K., 97 pp.
- Jayawardena K. M.; Gunerame, Q.; Viladsen, A. and Poulter, R. G. (1980): Studies on the preparation of fish silage. III. Dried silage products. Bull. Fish. Res. St. Srilanka, 30: 33-36.
- Journey, W. K.; Skillicorn and Spira, W. (1990): Duckweed aquaculture: a new aquatic farming system for developing countries. Agricultural Division, EMENA technical Department, The World Bank, Washington D.C. 133 pp.
- Khalifah, M. M. (1995): Nigella seed oil meal as protein supplement in broiler diets. M. Sc. Thesis, Faculty of Agri., Univ. of Alexandria, 185pp.
- Kissil, G. W. M.; Meyers, S. P.; Stickney, R. R. and Groop, J. (1983): Protein energy ratios in the feed of gilthead bream (*Sparus aurata*). Proceeding of the water fish culture work- shop, 1983. Baton Rouge, La. U.S.A. 63 pp.
- Kitola, H. G. (1983): Amino acids nutrition of fishes: Requirements and supplementation of diets. Comp. Biochem. Physiol., 73 : 17 – 27.
- Klinnavee, S.; Tansakul, R. and Promkuntong, W. (1990): Growth of Nile tilapia (*Oreochromis niloticus*) fed with aquatic plant mixtures. In Second Asian Fisheries Forum, Hirano, R. and Hanyu, I. (eds). Asian Fisheries Society, Manila, Philippines, pp. 283 – 286.

- Kompiang., I.P.; Arifudin, R. and Raa, J. (1980): In "Advances in fish science and technology" (J. J. Connell. ed.), Fishing News Book. Ltd. London, pp.349-352.
- Kompiang, I. P.; Yashadi, T. and Cresswell, D. C. (1980a): Nutritional value of fish silage (J. C. Disney and D. James, eds.). FAO Fish. Rep., 230 : 38 – 43
- Kompiang, I.P.; Darwanto, A. and Arifuddin, R. (1980b): Nutritional value of fish silage. (J. C. Disney and D. James, eds). FAO Fish. Rep., 230 : 44 – 47.
- Lapie, L. P. and Bigueras-Benitez, C. M. (1992): Feeding studies on Tilapia (*Oreochromis sp.*) using fish silage. Paper presented at the 8th session of the Indo-Pacific Fishery Commission Working Party on fish technology and marketing, Yogyakarta, Indonesia, 24-27 September 1991. FAO Fish. Rep. 470 Suppl.
- Liener, I. E. (1981): Factors affecting the nutritional quality of soya products. J. Amer. Oil Chem. Soc. 58: 406-415.
- Lopez, C. S. (1990): Microbial silage of fresh fish for animal feeds. In: Post-harvest technology. Preservation and quality of fish in south-east Asia. P. J. Reilly, R. W. H. Parry, L. E. barile eds. International Foundation for Science Stockholm, Sweden, pp.189-192.
- Mambrini, M. and Kaushik, S.J. (1995): Indispensable amino acid requirements of fish : correspondence between quantitative data and amino acid profiles of tissue proteins. J. Applied Ichthyology., 11: 240-247

- Mansour, C. ; R. (1997) : Nutrient requirements of Red tilapia. M.Sc. Thesis, Dept. Oceanography, Fac. Sci., Alex. Univ., 121pp.
- Matty, A. J. and Smith, P.(1978):Evaluation of yeast, a bacterium and an alga as a protein source for rainbow trout. 1-Effect of protein level on growth, gross conversion efficiency and protein conversion efficiency. *Aquacult.*, 14: 235 – 246.
- Mazid, M. A.; Tanaka, Y.; Katayama, T.; Asadur Rahman, M.; Simposon, K. L. and Chichester, C. O. (1979): Growth response of (*Tilapia zillii*) fingerlings fed isocaloric diets with variable protein levels. *Aquacult.*, 18: 115 – 122.
- Mbagwu, I. G.; Okoye, F. C. and Adiniji, H. A. (1990): Studies on the use of duckweed (*Lemna paucicostata* Hegelm.) as fish food, Tech. Rep. Ser. Natl. Freshwater Fish Resh. Nigeria, Bussa, Nigeria. 22; 25pp.
- McDonald, P.; Edwards R. A. and Greenhalgh J. F. (1995): Protein concentrate, 511-542. In : Animal nutrition. LONGMAN Group Lt., London.
- Middendorp, A. J. (1995a): Pond farming of Nile tilapia, *Oreochromis niloticus* (L.), in northern Cameroon Feeding combinations of cottonseed cake and brewery waste in fingerling culture, hand-sexed male monosex culture, and mixed culture with police-fish, *Clarias gariepinus* (Burchell). *Aquacult. Res.*, 26: 715-722.
- Middendorp, A. J. (1995b): Pond farming of Nile tilapia, *Oreochromis niloticus* (L.), in northern Cameroon. Mixed culture of large tilapia (>200g) with cattle manure and cottonseed cake as pond inputs, and African catfish, *Clarias gariepinus* (Burchell), as police-fish. *Aquacult. Res.*, 26: 723 – 730.

- Middendorp, A. J. and Huisman, E. A. (1995): Pond farming of Nile tilapia, *Oreochromis niloticus* (L.), in northern Cameroon. Comparing two different strategies for feeding cottonseed cake in tilapia male monosex culture. *Aquacult. Res.*, 26: 731 – 738.
- Mohamed, A.I. (1998): Evaluation of the nutritional value of the dehydrated leaves waste of some vegetable crops in diets of Nile tilapia. Ph.D. Thesis in Animal Production Fac. Agri. Alexandria Univ., 170pp.
- Murai, T. (1992): Protein nutrition of rainbow trout. *Aquacult.*, 100: 191-207.
- National Research Council (NRC) (1981): Nutrient requirements of cold water fishes, No. 16. Nutrient requirement of domestic animals. National Academy Press, Washington, D.C., 63 pp.
- National Research Council (NRC) (1983): Subcommittee on warm water fishes, Nutrient requirements of warm water fishes. National Academy of science, Washington, D. C., 78pp.
- Ng, W. K. and Wee, K. L. (1989): The nutritive value of cassava leaf meal in pelleted feed for Nile tilapia. *Aquacult.*, 83: 45 – 48.
- Nieves, P.M. and Barro, R.V. (1991): Evaluation of local ingredients (fish, shrimp, snail, copra meal, leaf meals & rice bran) for feeding Nile tilapia (*Oreochromis niloticus*) fingerlings. R- and -D- Journal (Philippines), 7: 2-10.
- Oberst, S.; Villwock, W. and Rosenthal, H. (1983): Growth and food conversion in tilapia under two different rearing conditions. *Proc. Int. symp. Tilapia*. Tiberias, Isreal, pp. 374-387.

- Okeyo, D. O. (1988): Growth by *Oreochromis aureus* (*Tilapia aurea*) on diets of three aquatic macrophytes. Ph.D. Thesis, Northern Arizona Univ. Flagstaff, USA. 235 pp.
- Omar, E.A. (1993): Optimum protein to energy ratio for Nile tilapia (*Oreochromis niloticus*) fingerlings. Alex. J. Agric. Res., 39 : 73-93.
- Omoriege, E. and Ogbemudia, F. I. (1993): Effects of substituting fish meal with palm kernel meal on growth and food utilization of the Nile tilapia, *Oreochromis niloticus*. Isr. J. Aquacult. – Bamidgah, 45 : 113-119.
- Osman, M. F.; Omar, E. and Nour, A. M. (1996): The use of *Leucaena* leaf meal in feeding Nile tilapia. Aquacult. Intl., 4: 9-18.
- Otubusin, S. O. (1987): Effects of different levels of blood meal in pelleted feeds on tilapia, *Oreochromis niloticus*, production in floating bamboo net-cages. Aquacult., 65 : 263-266.
- Pantha, M. B., (1982): The use of soybean in practical feeds for tilapia (*Oreochromis niloticus*). M.Sc. Thesis, Univ. of Stirling, UK.
- Pearson, S. (1976): The chemical analysis of foods. General methods Churchill, Livingstone, Edinburgh, London and New York, 2: 7 – 26.
- Phillips, A. M. (1972): Calorie and energy requirements in fish nutrition (J.E. Halver Ed.). Academic press. New York, pp. 2-28
- Phromkunthong W. and Chetanon, S. (1987): Replacement of fish meal with silage for feeding tilapia (*S. niloticus*). Songklanakarin. J. Sci. Technol., 9: 215-223.

- Pouomogne, V. (1995): Nile tilapia feeding in earthen ponds: evaluation of the nutritional value of some agro-industrial by-products and feeding practices. *Naga ICLARM*, 18 : 33- 34.
- Raa, J. and Gildberg. A. (1982): Fish silage: A review. CRC. (Critical Reviews in Food Science and Nutrition) pp. 383-419.
- Rackis, J. J. (1966): Soybean trypsin inhibitors: Their inactivation during meal processing. *J. Food. Technol.*, 20: 102-104.
- Robaina, L.; Izquierdo, M.S.; Moyano, F.J.; Socorro, J.; Vergara, J.M.; Montero, D. and Fernandez- Palacios, H. (1995): Soybean and lupine seed meals as protein sources in diets for glithead seabream (*Sparus aurata*): nutritional and histological implications. *Aquacult.*, 130 : 219-233.
- Rodriguez-Serna, M.; Olvera-Novoa, M. A. and Carmona-Osalde, C. (1996): Nutritional value of animal by-product meal in practical diets for Nile tilapia, *Oreochromis niloticus* (L.) fry. *Aquacult. Res.*, 27: 67-73.
- Rungruangsak, K. and Utne, F. (1981): Effect of different acidified wet feed on protease activities in the digestive tract and on growth rate of rainbow trout (*Salmo gairdneri richardson*) *Aquacult.*, 22: 67-79.
- Santiago, C. B.; Aldaba, M. B.; Laron, M. A. and Reyes, O. S. (1988): Reproductive performance and growth of Nile tilapia (*Oreochromis niloticus*) broodstock fed diets containing *Leucaena leucocephala* leaf meal. *Aquacult.*, 70: 53-61.

- Seifter, S.; Dayton, S. and Novic, N. (1950): The estimation of glycogen with the anthrone reagent. *Arch. Biochem. Biophys.*, 25: 191 – 201.
- Shiau, S. Y.; Chuang, J. L. and Sun, C. L. (1987): Inclusion of soybean meal in tilapia (*Oreochromis niloticus* x *O. aureus*) diets at two protein levels. *Aquacult.*, 65 : 251-261.
- Shiau, S. Y.; Kwok, C. C.; Hwang, J. Y.; Chen, C. M. and Lee, S. L. (1989): Replacement of fish meal with soybean meal in male tilapia (*Oreochromis niloticus* x *O. aureus*) fingerling diets at a suboptimal level. *J. World Aquacult. Soc.*, 20 : 230-235.
- Shiau, S. Y.; Lin, S. F.; Yu, S. H.; Lin, A. L.; Kwok, C. C. (1990): Deffatted and full-fat soybean meal as partial replacement for fishmeal in tilapia (*Oreochromis niloticus* x *O. aureus*) diets at low protein level. *Aquacult.*, 86 : 401 – 407.
- Siddiqui, A. Q.; Howiader, M. S. and Adam, A. A. (1988): Effects of dietary protein levels on growth, feed conversion and protein utilization in fry and young Nile tilapia (*Oreochromis niloticus*). *Aquacult.*, 70: 63-73.
- Sobhy, A. S. (2000): Development of diets for *Tilapia. aurea* and *Tilapia nilotica* cultured in Egypt. Ph.D. Thesis. Dept. Chem., Fac. Sci., Menoufiya Univ., 172pp.
- Steel, R.G.D. and Torrie, J. H. (1980): Principles and procedures of statistics 2nd ed. McGraw-Hill Book Company, New York.
- Stickney, R. R. and Megeachin, R. B. (1983): Responses of (*Tilapia aurea*) to semipurified diets of differing fatty acid composition. *Proc-int.Symp. Tilapia. Tiberias, Israel*, pp. 346-355.

- Stone, F. E.; Hardy, R. W.; Shearer, K. D. and Scott, T. M. (1989): Utilization of fish silage by rainbow trout (*Salmo gairdneri*). *Aquacult.*, 76, 109 – 118.
- Strickland, J. D. H. and Parsons, T. R. (1965): A manual of sea water analysis, 2nd edition. Bull. Fish. Res. Bd., Canada, Ottawa, pp. 125: 205.
- Strom, T.; Gildberg, A.; Stormo, B. and Raa, J. (1988): In "Advances in fish science and technology" (J. J. connell, ed.). pp. 352-355.
- Sweilum, M.A. (1995): Studies on rearing of some available species of carp and tilapia in ponds. Ph. D. Thesis, Fac. of Sci. (Benha) Zagazig Univ., 288pp.
- Sweilum, M.A. (1997). Effect of feeding rates on growth characters of Nile tilapia (*Oreochromis niloticus*) and water quality. Bull. Fac. Zagazig Univ., 19 : 243-257.
- Swingle, H.S. (1967): Estimation of standing crops and rates of feeding fish in ponds FAO Fish Rep., 44 : 416-423.
- Tacon, A. G. J. (1995): Fishmeal replacers: review of antinutrients within oilseeds and pulses – a limiting factor for the aquafeed green revolution. 19-21 September 1995, Singapore International Convention & Exhibition Centre, Singapore. Turret Group PLC (UK), Conference Proceedings, pp. 23-48.
- Tacon, A. G. J.; Jauncey, K.; Falaye, A.; Pantha, M.; Macgowan, I. and Stafford, E. A. (1983): The use of meat and bone meal, hydrolyzed feather meal and soybean meal in practical fry and fingerling diets for *Oreochromis niloticus*. In Porc. Ist. Intl. Symp. on Tilapia in Aquaculture, Fishelson, J. and Yaron, Z. (eds). Tel Aviv Univ. Press, Israel, pp. 356-365.

- Tacon, A. G. J.; and Cowey, C. B. (1984): In "Fish Energetics- a new look", CIP. Ytler and P. Calow, eds.) Croom Helm press Ltd., London.
- Tacon, A. G. J. and Jackson, A. J. (1985): Utilization of conventional and unconventional protein sources in practical fish feeds. In Nutrition and Feeding in Fish, Cowey, C. B., Mackie, A. M. and Bell, J. G. (eds.). Academic Press, London. pp. 119-145.
- Teshima, S. and Kanazawa, A. (1988): Nutritive value of methionine-enriched soy plastein for *Oreochromis niloticus* fry. In Second Intl. Symp. on Tilapia in Aquaculture. Pullin, R. S. V., Bhukaswan, T.; Tonguthai, K. and Maclean, J. L. (eds). ICLARM Conf. Proc., Manila, Philippines. 15: 393-399.
- Thompson, S. J. and Robinson, R. J. (1939): Notes on the determination of dissolved oxygen in seawater. J. Mar. Res., 2 : 1 – 8.
- Tiews, K.; Gropp, J.; Beck, H. and Koops, K. (1979): In "Finfish nutrition and fish food technology". (J. E. Halver and K. Tiews., eds.). H. Hennemann GmbH., Berlin., 25: 219-228.
- Tudor, K. W.; Rosati, R. R.; O'rourke, P. D., Wu; Y. V., Sessa, D. and Brown, P. (1995): Technical and economic feasibility of on-farm fish feed production using fishmeal analogs. Aquacult. Eng., 15 : 53 – 65.
- Viola, S. and Arieli, Y. (1982): Nutrition studies with a high protein pellet for carp and tilapia (*Sarotheroden spp*). Bamidgeh., 34 : 39-46.

- Viola, S. and Arieli, Y. (1983a): Nutrition studies with tilapia (*Sarotherodon*). 1. Replacement of fishmeal by soybean meal in feeds for intensive tilapia culture. *Bamidgeh*, 35 : 9-17.
- Viola, S. and Arieli, Y. (1983b): Evaluation of different gains on basic ingredients incomplete feeds for carp and tilapia in intensive culture. *Bamidgeh*, 35: 38 – 43.
- Viola, S.; and Arieli, Y. (1983c): Nutrition studies with tilapia hybrids. 2. The effects of oil supplements to practical diets for intensive Aquacult.. *Bamidgeh*, 35: 44-50.
- Viola, S. and Zohar, G. (1984): Nutrition studies with market size hybrids of tilapia (*Oreochromis niloticus*) in intensive culture. 3 protein levels and sources. *Bamidgeh*, 36: 3-15.
- Viola, S.; Zohar, G. and Arieli, Y. (1986a): Phosphorous requirements and its availability from different sources for intensive pond culture species in Israel. Part I. Tilapia. *Bamidgeh*, 38 : 3 – 12.
- Viola, S.; Zohar, G. and Arieli, Y. (1986b): Requirements of phosphorus and its availability from different sources for intensive pond culture species in Israel. Part II. Carp culture. *Bamidgeh*, 38 : 44 – 54.
- Viola, S.; Arieli, Y. and Zohar, G. (1988): Animal-protein-free feeds for hybrid tilapia (*Oreochromis niloticus* x *O. aureus*) in intensive culture. *Aquacult.*, 75 : 115-125.
- Viola, S.; Angeoni, H. and Lahav, E. (1994): Present limits of protein sparing by amino acid supplementation of practical carp and tilapia feeds. *Isr. J. Aquacult.-Bamidgeh*, 46 : 203-211.

- Viola, S.; Angeoni, H. and Lahav, E. (1994a): Growth performance protein and energy balances of hybrid tilapia fed two levels of lysine at 3 levels of protein. Present limits of protein sparing by amino acid supplementation of practical carp and tilapia feeds. *Isr. J. Aquacult.-Bamidgeh*, 46 : 212-222.
- Wang, K. W.; Takeuchi, T. and Watanabe, T. (1985): Effect of dietary protein levels on growth of *Tilapia nilotica*. *Bulletin of the Japanese Soc. of Sci. Fisheries.*, 51 : 133-140.
- Wassef, E.A.; Palmer, G. and Poxton, M. (1988): Protease digestion of the meals of ungerminated and germinated soybeans. *J. Sci. Food Agric.*, 44: 201 – 214.
- Wassef, E.A. (1991): Development of diets for *Sparus aurata* cultured in Egypt. *JKAU: Mar. Sci.*, 2: 103-111.
- Watt, B. (1979): Antibiotic susceptibility testing of anaerobic bacteria. *J. Inf. I., Suppl.*, 1: 39–48.
- Webster, C.D.; Yancey, D.H. and Tidwell, J.H. (1992): Effect of partially or totally replacing fish meal with soybean meal on growth of blue catfish (*Ictalurus furcatus*). *Aquacult.*, 103: 141-152.
- Wee, K. L. (1991): Use of non-conventional feedstuff of plant origin as fish feeds: is it practical and economically feasible? In *Fish Nutrition Research in Asia, Proceedings of the Fourth Asian Fish Nutrition Workshop*, De Silva, S. S. (ed). Asian Fisheries Society Special Publication, 5: 13-32.

- Zeweil, H. S. (1996): Evaluation of substituting Nigella seed oil meal for soyabean meal on the performance of growing and laying Japanese Quails. Egypt. Poult. Sci., 16: 451-477.
- Zohar, G.; Rappaport, U.; Ai. Imelech, Y. and Saring, S. (1984): Results of the experiments carried out in the Genosar experimental stations in 1983 cultivate of tilapia in high densities and with periodic flushing of the pond water. Bamidgeh , 36 : 63-71.
- Zollner, N. and Kirsch, K. (1962): Uber die quantitative Bestimmung von lipoiden (Mikromethod) mittles der vielen naturlichen lipoiden (allen bekannten plasma lipoiden) gemeinsamen sulfophosphovanillin – reaktion. Z. ges. Exp. Med., 135: 545 – 561.