

## 6. REFERENCES

- **Abayomi, Y.A. and Wright, D. (1999):** Effects of water stress on growth and yield of spring wheat (*Triticum aestivum* L.) cultivars. Tropical Agric., 76: 120-125.
- Abd-Alla, M.H.; Mahmoud, A.L. and Issa, A.A. (1994): Cyanobacterial biofertilizer improved growth of wheat. Phyton. Horn., 34: 11-18.
- Abd El-Aziz, I.M.; Kadry, W.; Ahmed, A.S. and Ahmed, W.E. (1991): Effect of nitrogen source and zinc application methods on wheat. Zagazig, J. Agric. Res., 18: 1669-1676.
- Abd El-Gawad, A.A.; Noureldin, N.A.; Ashoub, M.A. and Kashabah, M.A. (1993b): Studies on consumptive use and irrigation scheduling in relation to nitrogen fertilization on wheat. II. Response of wheat yield and its attributes. Annals Agric. Sci. Ain Shams Univ. Cairo, 38: 173-181.
- Abd El-Hafeez, A.M. (2004): Effect of certain sulfur and nitrogen treatments on some nutrients availability and plant growth. Ph.D. Thesis Fac. of Agric., El-Azhar Univ., Egypt.
- Abd El-Magid, H.M.; Abdel-Aal, S.I.; Rabie, R.K. and Sabrah, R.E.A. (1995): Chicken manure as a biofertilizer for wheat in the sandy soil of Saudi Arabia. J. Arid. Environ., 29: 413-420.
- **Abd El-Maksoud, M.F. (2002):** Response of some wheat cultivars to biofertilizer and nitrogen fertilizer levels. Zagazig J. Agric. Res., 29: 891-905.
- Abd El-Nasser, G. and Hussein, A.H.A. (2001): Effect of different manure sources on some soil properties and sunflower plant growth. Part 1: Soil physical and chemical properties. Alex. J. Agric. Res., 46: 227-251.
- Abdel-Aal, S.I.; Abdel-Hamid, M.A.; Ismaiel, S.A.; Abd El-Fattah, A. and Taalab, A.S. (2003): Effect of organic farming practice on nutrient availability and wheat yield grown on torripsamments. Egypt. J. Soil. Sci., 43: 47-62.

- Abdel-Aziz, M.F. (2003): Effect of irrigation intervals, nitrogen and potassium levels on growth, yield and nutritional value of wheat crop. M.Sc. Thesis, Fac. of Agric., Moshtohor, Zagazig Univ., Benha Branch, Egypt.
- **Abdel-Ghani, M.M. (2005):** Effect of different soil amendments on some soil physical properties and wheat yield in sandy soil. Egypt. J. of App. Sci., 20: 646-655.
- **Abdel-Ghani, M.M. and Bakry, M.A. (2005):** Impact of Different N-sources and rates on wheat plants grown on sandy soils under sprinkler irrigation system. Minufiya J. Agric. Res., 30: 1639-1650.
- Abdel-Maksoud, J.K.; Azzazy, M.A. and Abdel-Aziz, R.A. (2002):

  Biotransformation of organic fraction of municipal solid waste to compost and its manual effect on wheat growth.

  Egypt. J. Soil Sci., 42: 267-275.
- Abdel-Mawgoud, A.S.; El-Gendi, S.A.; Awaad, M.S. and Hegab, S.A.M. (2003): Irrigation and fertilization management for wheat crop under sprinkler irrigation system. J. Agric. Sci. Mansoura Univ., 29: 487-497.
- **Abdel-Naim, E.M. and El-Awady, R.M. (1984):** Changes in soil and yield productivity by using sewage water. Agric. Res. Rev., 62: 129-138.
- Abdel-Nasser,G. and El-Shazly, S.M. (2000): Irrigation management of Anna Apple trees in relation to growth ,yield ,fruit quality, leaf constituents and plant water relations. Alex. J. Agric. Res., 45:225-247.
- Abdel-Nasser, G. and Hussein, A.H.A. (2001): Response of corn to K-fertilization under different soil moisture conditions. 1-Growth, yield, leaf nutrients content and plant water relations. Adv. Agric. Res., 6: 173-193.
- **Abdel-Sabour, M.F. and Abo El-Seoud, M.A. (1996):** Effect of organic waste compost addition on sesame growth, yield and chemical composition. Agriculture Ecosystems and Envirobment., 60: 157.

- Abdel-Samad, F.A.; Abdel-Aziz, I.M.; Hegazy, M.N. and Youssef, N.N. (1987): Effect of soil inoculation with actinomycetes, ammonium sulphate and organic manure on corn (Zea mays L.) in calcareous soil. Egypt. J. Appl. Second Issue June, 2: 863-868.
- Abdul Galil, A.A.; Gomoa, M.A.; Gewefel, H.M. and Atta, Y.E. (1997): Response of yield and some grain quality criteria in wheat to nitrogen and phosphorus fertilization. Zagazig J.Agric.Res., 24: 595-613.
- Acea, M.J. and Carballas, T. (1996): Microbial response to organic amendments in forest soil. Bioresource Technology, 57: 193-199.
- Aftab, A.; Sharaf, M.; Asad, S.A. and Farooq, M. (2005): Effect of phosphate solubilizing microorganisms on phosphorus uptakes, yield and yield traits of wheat (*Triticum aestivum* L.) in rainfed area. International J. of Agric. And Biology.,7: 207-209.
- Ahmed. A.A. (1995): Response of wheat plant to nitrogen and biological fertilization under conditions of north west coast of Egypt. M.Sc. Thesis, Fac. of Agric., Ain Shams Univ., Egypt.
- Al-AbdulSalam, M.A. (1997): Influence of nitrogen fertilization rates and residual effect of organic manure rates on the growth and yield of wheat. Arab Gulf J. of Sci. Res., 15: 647-660.
- Ali, I.M.E. (2005): Biofertilization and its effect on nitrogen use efficiency . M.Sc. Thesis Fac. of Agric. Benha Univ., Egypt.
- Ali, L.K.M. (2001): Use of improved organic fertilizer as nutrients sources. Ph.D. Thesis Fac. of Agric., Ain Shams Univ., Egypt.
- Al-Khafaf, S.; Al-Daghistani, S.; Mankhy, F.S. and Hussain, I.A. (1988): Grain yield and root distribution of wheat exposed to water stress at different growth stages under various depths of presowing irrigation water. J. of Agric. And Water Resources Res. Soil and Water Resources, 7: 1-16.

- Allam, E.H. (1999): Studies on production of organic crops wastes and their effect on reclamation of sandy soil. M.Sc. Thesis, Fac. of Agric. Moshtohor, Zagazig Univ., Benha Branch, Egypt.
- Alphonse, M. and Saad, E.M. (2000): Effect of some organic media and micronutrients on mineral contents of plastic house cucumber. Egypt. J. Hort., 27: 385-408.
- Aly, A.M. (1999): Studies on nutrients availability from plant residues and different organic fertilizers. Ph.D. Thesis, Fac. of Agric., Moshtohor, Zagazig Univ., Egypt.
- Aly, S.S.; Soliman, S.M. El-Akel, E.A.; Ali, M.E. (1999): Significance of free N<sub>2</sub> fixing bacteria and nitrification inhibitor on saving the applied nitrogen to wheat plants. Bull. Fac. Agric., Cairo Univ., 50: 347-365.
- Amara, M.A.T. and Dahdoh, M.S.A. (1997): Effect of inoculation with plant growth proboting rhizobacteria (PGPR) on yield and uptake nutrients by wheat grown on sandy soils. J. Soil Sci., 37: 467-484.
- Amer, A. (1980): Effect of water quality and gypsum on some properties of soils of Nile Delta. M.Sc. Thesis, Fac. of Agric. Alexandria Univ., Egypt.
- Amer, A.A.; Badawi, M.A. and El-Banna, A.A. (1997): Effect of organic manuring on wheat plants grown in sandy soil. Annals Agric. Sci., 42: 107-116.
- Ashok, K.; Sharma, D.K.; Sharma, H.C. and Kuma, A. (1995):

  Nitrogen uptake, recovery and N use efficiency in wheat

  (*Triticum aestivum*) as influenced by nitrogen and irrigation levels in semi reclaimed sodic soils. Indian J. of Agron., 40: 198-203.
- **Ashour, I.A.I.** (1992): Influence of some soil amendments on calcareous soil properties as well as on the yield and chemical composition of wheat under irrigation with saline water. M.Sc. Thesis, Fac. Agric., Moshtohor, Zagazig Univ., Egypt.
- Atta Allah, S.A. and El-Karamity, A.E. (1997): Response of wheat to mineral and biofertilization in the valley and reclaimed lands. J. Agric. Sci. Mansoura Univ., 22: 319-328.

- Atta Allah, S.A. and Mohamed, G.A. (2003): Response of wheat grown in newly reclaimed sandy soil to poultry manure and nitrogen fertilization. J. Agric. Sci. Mansoura Univ., 28: 7531-7538.
- Attia, N.A. and Aly, R.M. (1998): Effect of different levels of nitrogen and phosphorus fertilizers with the application of rabbit manure on yield potentiality of wheat in sandy soils. Zagazig J. Agric. Res., 25: 595-617.
- Awad, A.M.; Ramadan, H.M. and El-Fayoumy, M.E. (1996): Effects of sulphur, phosphorus and nitrogen fertilizers on micronutrients availability, uptake and wheat production on calcareous soils. Alex. J. Agric. Res., 41:311-327.
- **Awad, Y.H. (1998):** Newly reclaimed soil and wheat yield as affected by FYM and gypsum under different irrigation regimes. Zagazig J. Agric., 25: 671-677.
- Badr, M.A.; Hassan, M.A. and Monged, N.O. (1991): Effect of nitrogen application and micronutrients on the yield and chemical contents of wheat plant. Zagazig J. Agric. Res., 18: 1661-1668.
- Bakry, M.A.; Massoud, A.M. and Awaad, M.S. (2005): Effect of Azospirillium inoculation and fertilization with zinc and copper on wheat production and its components. Egypt. J. of Appl. Sci., 20: 333-348.
- **Balyan, I.S.** (1992): Effect of organic recycling on yield attributes, nitrogen concentration and uptake in wheat (*Triticum aestivum*). Indian J. Agron., 37: 701-704.
- Barber, G.C.; Bahragva, S.S. and Rucka, D. (1986): Critical stages of irrigation in wheat. Effect on yield and its contributing characteristics. Ind. J. Agron., 19: 381-382.
- Barker, A.V. (1997): Composition and uses of compost. Pages 140-162 in J.E. Rechcigl and H.C. Mackinnon, eds. Agriculture use of by-products and wastes. American Chemical Society, Washington, D.C., U.S.A.
- **Barsoom, S.W. (1991):**Effect of different organic manures and water regimes on the growth and nutrients uptake by wheat plants grown on different soils.Minufiya,J. Agric.Res., 16: 2035-2053.

- Barsoom, S.W. (1998): Effect of moisture on nutrient content in new reclaimed soils during the decomposition of organic manures. Egypt. J. Soil Sci., 38: 55.
- Barsoom, S.W.; Faiyad, M.N. and El-Koumey, B.Y. (1991): Effect of organic matter addition on nitrogen and phosphorus uptake by wheat. Minufiya, J. Agric. Res., 16: 987-1001.
- Basak, U.K. and Dravid, M.S. (1997): Phosphorus, magnesium and moisture inter-relationship in relation to dry matter yield, chlorophyll content, relative water content and nutrient uptake by wheat. Environment and Ecology, 15: 889-895.
- Bassal, S.A.A.; Ibrahim, E.M. and Bader, M.M.A. (2001): Effect of proceeding summer crops, nitrogen fertilizer rates and biofertilizer on wheat crop productivity. Al-Azhar J. Agric. Res., 34: 85-98.
- Bertran Kehres and Andrease, K.(1994): Methods Book for Analysis of Compost, Publisher: Fedral Compost Quality Assuran Organization (F C Q A O).
- **Brown**, M.E. (1982): Nitrogen fixation by free-living bacteria associated with plants fact or fiction in bacteria and plants. Academic Press. pp. 25-41.
- Carletti, S.; Rodriguez, C.E. and Liorente, B. (1996): Effect of biofertilizer application on Jojoba cultivation. Association for the Adv. of Indust. Crop, (1996): 53-55.
- Copper, J.L. (1980): The effect of nitrogen fertilizer and irrigation frequency on semi- dwarf wheat in south east Australia.1-Growth and yield. Australia J. Exp. Agric.Amim. Husb., 20: 359-369.
- Dahdoh, M.S.A.; Gaber, A.M. El-Menasy, A.I. (2005): Wheat productivity under organic and mineral fertilization and irrigation with saline water. Egypt. J. of Appl. Sci., 20: 305-323.
- Dahdouh, S.M.M.; Saleem, F.M. and Fatma, A.A.; Osman (1997): Effect of soil and foliar fertilization with various rates and sources of nitrogen on growth, yield and nutrient content of wheat. Zagazig J. Agric. Res., 24: 705-717.

- Daoud, A.M. and Khodier, M.M. (2000): Effect of salinity and moisture content of calcareous soil on the growth and water use of wheat (*Triticum aestivum* L.). Adv. Agric. Res., 5: 1319-1328.
- Dayegamiye, A.N. and Thi, S. T. (2001): Effect of green manures on soil organic matter and wheat yields and N nutrition. Canadian J. of Soil Sci.,: 371-383.
- Deveilen, R. and Williams, F.W. (1985): "Plant Physiology". (Forth Edition) Arab Publishing Group.
- **Diez, J.A.** (1989): The synergistic effect of organic and inorganic nitrogen fertilization on N availability to the plant. Agric. Mediterranea, 119: 435-444.
- **Dobereiner, J. (1992):** History and new perspectives of diazotrophs in association with non-leguminous plants. Symbiosis, 13: 1-13.
- Eissa, N.M.H. (1996): Studies on sustainable agriculture for some vegetable crops using animal manure. M.Sc. Thesis, Agric., Dept. Environ. Sci., Inst. of Environ. Studies and Res. P. 44-120, Ain Shams Univ., Egypt.
- El-Afandy, K.T. (1995): Physiological response of wheat under different levels of organic matter and nitrogen fertilization and their effects on yield and grain quality in south of Sinai. Ph.D. Thesis, Fac. of Agric., Ain Shams Univ., Egypt.
- El-Degwy-Sherien, M. (2006): Nitrogen turnover to improve cropping yield in sustainable agriculture using <sup>15</sup>N technique. Ph.D. Thesis, Fac. Agric., Moshtohor, Benha University, Egypt.
- El-Emam, M.A.A. (2002): Response of plants on some types of unconventional fertilizers.Ph.D.Thesis,Fac.Agric., Moshtohor, Zagazig Univ., Benha Branch, Egypt.
- Elgala, A.M.; Ishac, Y.Z.; Abdel-Monem, M. and El-Ghandour, I.A. (1995): Effect of single and combined inoculation with Azotobacter and VA mycorrhizal fungi on growth and mineral nutrient contents of maize and wheat plants. Environmental Impact of Soil Component Interactions, 2: 109-116.

- El-Ghamry, A.M. and El-Naggar, E.M. (2001): Evaluation of some organic residues as soil conditioners on different Egyptian soils. J. Agric. Sci., Mansoura Univ., 26: 8207-8214.
- El-Ghany, B.F. (1999): Crop production in new cultivated land. Desert Inst. Bull., 46: 212-226.
- El-Ghazoli, M.A. (1998): Studies on some organic residues enriched with some macro and micronutrients. Ph.D. Thesis Fac. of Agric., Moshtohor, Benha Branch, Zagazig Univ., Egypt.
- El-Guibali, Amal, H.; Orman ,Samya,E.H. and El-Fiki, S.F. (2005): Response of Gemmiza 7 wheat cultivar to different levels of nitrogen and zinc fertilization. Minufiya J. Agric. Res., 30: 791-799.
- El-Hadidi, E.M.; El-Argan, M.Y.S.; El-Zeky, M.M.; Metwally, S.Gh.; El-Kholy, M.H. and Abdel-Khalek, M.I. (2002): Effect of tile drainage and nitrogen application on wheat crop and nitrogen use efficiency. J. Agric. Sci. Mansoura Univ., 27: 2753-2760.
- **El-Hawary, F.I.; Ibrahim, I. And Hamouda, F. (1998):** Effect of integrated bacterial fertilization on yield components of wheat in sandy soil. J. Agric. Sci. Mansoura Univ., 23: 1951-1957.
- El-Hawary, M.A. (2000): Evaluation of some wheat varieties under water deficit conditions. Zagazig J. Agric. Res., 27: 819-830.

40

- El-Kabbany, E.A.Y. (1992): Biochemical studies on wheat as affected by some micronutrients. Ph.D. Thesis, Minufiya Univ., Egypt.
- El-Kalla, S.E.; Kandil, A.A.; Sultan, M.S.; El-Moursy, S.A. and Abdel-Aal, A.A. (1992): Response of some wheat varieties to irrigation regimes and time of nitrogen fertilization. J. Agric. Sci., Mansoura Univ., 17: 2568-2575.
- El-Kalla, S.E.; Leilah, A.A.; Basiony, A.H. and Hussien, S.M. (1994): Effect of irrigation and foliar nutrition treatments on growth and yield of some wheat cultivars under Al-Arish area conditions. Sixth Conf. Agron., Fac. Agric., Al-Azhar Univ., 1: 365-378.

**El-Khawas,H.M.(1981):** Ecological studies on a symbiotic N<sub>2</sub>-fixing bacteria in soil and rhizosphere of certain plants.M.Sc.Thesis Fac. Agric.,Cairo Univ.,Egypt.

El-Kholy, F.A. (1998): Essentiality of bioferilizers with special references to biological nitrogen fixation (BNF). Egypt. J.

Soil Sci., 38: 339-352.

El-Komy, H.M.A.; Moharram, T.M.M. and Safwat, M.S.A. (1998): Effect of Azospirillium inoculation on growth and N fixation of maize subjected to different levels of FYM using N<sup>15</sup>-dilution method. In: Malak, K.A.; Sajjad Mirza, M.; Ladha, J.K. (eds.) (1998): Nitrogen Fixation With Non-legumes. Kluwer Academic Publisher, Dordrechit. Boston, London, pp. 49-59.

El-Koumey, B.Y. (1999): Influence of CaCO<sub>3</sub> and poultry manure with high applied levels of Zn and Cd on soil and plants.

Minufiya J. Agric. Res., 24: 2125-2135.

El-Koumey, B.Y. and El-Shafei-Fatma, S. (1997): Effect of nitrogen and zinc fertilization on growth and nutrient contents of wheat plants. Zagazig J. Agric. Res., 24: 343-355.

El-Leboudi, A.E.; Ismail, A.S.; Negm, M.A. and Montasser, S.Y. (1988): Organic acid and nutrients availability in calcareous soils. Inter. Symp. on the use of conditioners for reclamation and farming of Desert Lands, 11-13 Oct., Cairo, Egypt.

El-Leithi, A.A.; Sayed, K.M. and El-Yamani, M.S. (1996): Influence of different levels of N, K and Zn fertilization on wheat yield and chemical composition in salt affected soil.

J. Agric. Mansoura Univ. 21: 3735-3741.

**El-Maghraby**, S.E. (1997): Impact of natural conditioners and saline irrigation water frequency on calcareous soil productivity. Egypt. J. Soil Sci., 37: 267-281.

El-Maghraby, S.E.; Hashem, F.A. and Wassif, M.M. (1997):
Profitability of using elemental sulphur after two years of application and its relation to organic manure under saline irrigation water. Egypt. J. Soil Sci., 37: 511-524.

- El-Mancy, M.H. (1998): Wheat growth and some nutrient contents as affected by bacterial inoculation under graded levels of N and P. J. Agric. Sci., Mansoura Univ., 23: 4059-4071.
- El-Mansi, A.A.; Bardisi, A.; Arisha, H.M. and Nour, E.M. (1999): Studies on some factors affecting growth and yield of pea under sandy soil conditions using drip irrigation system. 2. Effect of organic manure and irrigation water quantity. Zagazig J. Agric. Res., 26: 1409-1428.

El-Masry, A.A.M. (1995): Effect of some soil amendments on the availability of nutrients of plant. M.Sc. Thesis, Fac. of Agric. Al-Azhar Univ., Egypt.

El-Masry, A.A.M. (2001): Effect of some soil amendments and fertilizer application practices on the yield of some crops under salt affected soils. Ph.D. Thesis, Fac. of Agric. Al-Azhar Univ., Egypt.

El-Massry, A.A. and Negm, M.A. (1986): Effect of organic amendments on some properties of calcareous soil and barley growth. J. Agric. Sci., Mansoura Univ., 11: 434-439.

El-Meneasy, A.I.A.; Ewais-Magda, A.; Abdel-Latif, Amina, M. and Mahmoud-Awatef, A. (2005): Response of wheat plants to organic manure applied individually or with urea spray or biofertilizer. Egypt. J. Appl. Sci., 20: 307-317.

El-Morsy, E.A. (1997): Impact of amelioration techniques on redaiming saline sodic calcareous soil 11. Improvement of some soil physical properties and productivity. The intern. Symp. on Sustainable Management of Salt Affected Soils in the Arid Ecosystem, Cairo. Egypt, 21-62 September, 1997.

El-Nagar, G.R. (1997): Evaluation of yield and quality of some local and introduction wheat cultivars under variable nitrogen fertilizer levels. Assiut J. of Agric. Sci., 28: 117-134.

El-Naggar, S.M.A. (1999): Efficiency use of bio and chemical fertilization on wheat. Ph.D. Thesis, Fac. of Agric., Mansoura Univ., Egypt.

- El-Sabbagh, A.A.; Abd El-Hafez, S.A.; El-Bably, A.Z. and Abou-Ahmed, E.I. (2006): Influence of soil moisture deficit on the water relations and productivity of some soybean cultivars. Bull. Fac. Agric., Cairo Univ., 57: 571-586.
- El-Sayed, S.A.M. (1995): Effect of cropping and N-fertilization on changes in different forms of nitrogen in an oasis soil. J. Agric. Sci., Mansoura Univ., 20: 453-460.
- El-Sayed, S.A.M. (1999): Influence of Rhizobium and phosphate solubilizing bacteria on nutrient uptake and yield of lentil in the new valley. Egypt. J. Sci., 39: 175-186.
- El-Sersawy, M.M.; Bouthina, F.A.; Khalil, K.W. and Awadalla, S.Y. (1997): Interaction between organic manure mixtures, applied N-level and biofertilization on calcareous soil properties and wheat production in Wadi Sudr, South Sinai. Egypt. J. Soil. Sci., 37: 367-397.
- El-Shafie-Fatma, S. (2001): Response of wheat to inoculation with associative diazatrophs under different N levels. Minufiya J. Agric. Res., 26: 1709-1722.
- El-Shafie-Fatma, S. and El-Shikha, S.A. (2003): Productivity and nutrients uptake of wheat and faba bean grown on calcareous soil as affected by organic manure and saline irrigation water. Minufiya J. Agric. Res., 28: 1025-1048.
- El-Shahaby, A.F.; Omar, M.V. and Shehata, H. (2000): Integration of diazotrophs inoculation with organic and inorganic fertilization to improve wheat and maize productivity in sandy soil. Egypt. J. Agric. Res., 78: 499-518.
- El-Sharawy, M.A.I.; Aziz, M.A. and Laila, K.M. Ali (2003): Effect of the application of plant residues composts on some soil properties and yield of wheat and corn plants. Egypt. J. Soil Sci., 43: 421-434.
- El-Sherbieny, A.E.; Fouda, E.E.; Awad, E. and Abd El-Kariem, A.A. (1991): Residual effect of different sources of organic manures on the availability of Zn and Mn to barley plants. Egypt. J. Soil Sci. Special Issue: 425-441, (Cairo, 1992).

- El-Sherif, A.F.M. and El-Shrief, S.M. (1973): The effect of soil moisture levels and fertilizers on dry matter, phosphorus uptake by wheat and flax. Egypt. J. Soil Sci., 2: 203-212.
- **El-Shouny, M.M.** (2006): The effect of some soil amendments on soil properties and wheat production in salt-affected soils. Minufiya J. Agric. Res., 31: 1105-1117.
- El-Yamany, M.S. (1994): Study on the effect of some fertilizer treatments on wheat under different irrigation conditions. Ph.D. Thesis Fac. of Agric., Kafr El-Sheikh, Tanta Univ., Egypt.
- El-Zaher, H.; Awad, A.W. and Salem, M.A. (2001): Combined effect of farmyard manure and N-fertilizer on wheat production, NPK uptake and N-use efficiencies under highly calcareous soil conditions. J. Agric. Sci. Mansoura Univ., 26: 8227-8245.
- Eweda, Wedad, E. (1983): Effect of soil inoculation with Azotobacter on some economical plants. Ph.D. Thesis, Fac. Agric. Ain Shams Univ., Egypt.
- FAO Soil Bulletin (1977): China recycling of organic wastes in agriculture. FAO Soil Bull. 40 Rome.
- Fares, C.N. (1997): Growth and yield of wheat plants as affected by biofertilization with associative, symbiotic N<sub>2</sub>-fixers and endomycorrhizae in the presence of different P-fertilizers. Annals of Agric. Sci. Cairo. 42: 51-60.
- Fathi, A.L.; Abd El-Aziz, S.M. and Gawish, S.M. (1990): Effect of foliar application of some micronutrients under different levels of N-fertilization on yield and nutrient content of wheat plant. Annals Agric. Sci., Moshtohor, 28: 2669-2680.
- Fedtake, C. (1973): Effect of the herbicide methabenzthiazoron on the physiology of wheat plants. Pestic. Sci., 4: 653-664.
- Gaffar, M.O.; Ibrahim, Y.M. and Wahab, D.A.A. (1992): Effect of farmyard manure and sand on the performance of sorghum and sodicity of soil. J. Ind. Soc. Soil. Sci., 40: 540-543.
- Galal, M.Y. (1993): Evaluation of some fertilizers for increasing nitrogen efficiency under Egyptian conditions. Ph.D. Thesis, Fac. Agric. Ain Shams Univ., Egypt.

- Galal, O.A.M. (2007): Studies on balanced fertilization of wheat plant. Ph.D. Thesis, Fac. Agric., Moshtohor, Benha Univ., Egypt.
- Galal, Y.G.; El-Ghandour, I.A.; Aly, S.S.; Soliman, S. and Gadalla, A. (2000): Non-isotopic method for the quantification of biological nitrogen fixation and wheat production under field conditions. Biology and Fertilizer of Soils, 32: 47-51.
- Garabet, S.; Wood, M. and Ryan, J. (1998): Nitrogen and water effects on wheat yield in a Mediterranean type climate. Growth, water use and nitrogen accumulation. Field Crop Res., 57: 309-318.
- Gaur, A.C. and Mukherjee, D. (1980) Recycling of organic matter through mulch in relation to chemical and microbiological properties of soil and crop yields. Plant and Soil, 56:273.
- Ghallab, A.M. and Salem, S.M. (2001): Effect of some biofertilizer treatments on growth, chemical composition and productivity of wheat plants grown under different levels of NPK fertilization. Annals of Agric. Sci. Cairo, 46: 485-509.
- Ghazal, H.M.; Wassouf, M.Z. and Nachit, M.M. (1998): Yield and yield components of durum wheat as influenced by irrigation and nitrogen fertilization. Triticeae. III-proceedings of the third-International-Triticeae-Symposium, Alepposyria, 445-449.
- Ghowail, Salma, I. and El-Koumy, H.M (2002): Effect of organic and inorganic nitrogen on wheat yield and nitrogen availability. Minufiya. J.Agric. Res., 27: 735-753.
- Gibali, A.S. and Rahmatullah, A. (1982): Effect of manure and soil carbonates on the availability and uptake of superphosphate phosphorus by wheat plants under greenhouse conditions. Libyan J. of Agric., 11: 159-164.
- Gopal-Singh; Somani, L.L.; Totawat, K.L. and Singh, G. (2000): Effect of integrated nitrogen management on yield attributing characters and yield of wheat. Res. on Crops, 1: 123-127.

- Goyal, S.; Chander, K.; Mundra, M.C. and Kapoor, K.K. (1999): Influence of organic fertilizers and organic amendments on soil organic matter and soil microbial properties under tropical conditions. Biology and Fertility of Soils, 29: 196-200.
- Graves, A.; Matthews, R. and Waldie, K. (2004): Low external input technologies for livehood improvement in subsistence agriculture. Adv. Agron. Volume 82.
- Hago, M.A.; Shafik, I.A. Raafat, K.R. and Ragaa, E.A. (1993): Chicken manure as a biofertilizer for wheat in the sandy soils of Saudi Arabia. J. of Arid Environ., 29: 413-420.
- Hamed, M.F. (1998): Wheat response to inoculation source and rate of nitrogen fertilization. J. Agric. Sci., Mansoura Univ., 23: 1021-1027.
- Hamissa, M.R.; Khadr, M.S.; Baseem, M.M. and El-Mallah, M.I. (1981): Efficiency of fertilizer N for wheat as affected by time and method of application. Agric. Res. Rev. No. 4.
- Hassan, A.A. and Gaballah, A.B. (2000): Response of some wheat cultivars to different levels and sources of nitrogen fertilizers under new reclaimed sandy soils. Zagazig J. Agric. Res., 27: 13-29.
- Hassan, H.A. and Mohey El-Din, M.M. (2002): Effect of the organic manure application on some soil chemical properties, yield nutrients uptake and nitrogen use efficiency by winter wheat growth in newly reclaimed sandy soils. Minia J. Agric. Res. & Develop., 22: 381-406.
- Hassan, H.M.; El-Basioni, S.M. and Michail, N.N. (1994): Sorghum production as influenced by farmyard manure and sulfur additions in a clay desert soil. Zagazig J. of Agric. Res., 21: 1581-1591.
- Hassan, M.M. (1999): Organic refuse composted by micro-organisms and their effect on the availability of some nutrients in newly reclaimed soils. Ph.D. Thesis Fac. Agric., Zagazig Univ., Egypt.

- He, Y.Q.; Zhu, G.; Smith, S.E. and Smith, F.A. (2002): Interaction between soil moisture content and phosphorus supply in spring wheat plants grown in pot culture. J. of Plant Nutrition, 25: 913-925.
- Hedge, D.M.; Dwived, B.S. and Sudhakara, S.N. (1999):
  Biofertilizers for crops production in India a review".
  Indian J. Agric. Sci., 69: 73-83.
- Heggy, S.F.; Megalah, S.S.; Mohamed, N.I. and Abdel-Maksoud, M.M.R. (1993): Effect of irrigation intervals, nitrogen and iron fertilizer levels and soil type on growth and yield of wheat. Egypt J. Agric. Res., 71: 347-356.
- Hesham, F.A.; El-Maghraby, S.E. and Wassif, M.M. (1997): Efficiency of organic manure and residual sulphur under saline irrigation water and calcareous soil conditions. Egypt. J. Soil Sci., 37: 451-465.
- Hons,F.M.; Stewart,W.M. and Hossner,L.R.(1986): Factors interactions and their influence on hydrolysis of condensed phosphates in soils. Soil Sci., 141: 401-408.
- Hsiao, T.C. (1973): Plant responses to water stress. Annu. Rev. Plant Physiol., 24: 519-570.
- Hsieh, C.; Hsu, K.; Hsieh, C.F. and Hsu, K.N. (1994): Effect of organic manure on growth and yield of sweet pepper. Bulletin of Taichung District Agricultural Improvement Station, 42: 1-10.
- Hussain, T.; Javid, T.; Parr, J.F.; Jilani, G. and Hag, M.A. (1999): Rice and wheat production in Pakistan with effective microorganisms. American J. of Alternative Agric., 14: 30-36.
- Hussein, Magda, A.H. and El-Mahgoby, G.M.A. (2006): Effect of potassium fertilization and soil moisture content on wheat grown in a high L-testing calcareous soil. J. Adv. Agric. Res. Fac. Agric., Saba Basha, 11: 23-37.
- **Ibrahim,M.E.F.(2007):** Scheduling cotton irrigation using pan evaporation under different tillage practices. Ph.D.Thesis Fac. of Agric. Fayoum Univ., Egypt.

- Ibrahim, A.M.; Seaf El-Yazal, S.A. and El-Sayim, R.G. (2005): Response of maize vegetative growth and yield to partial N-mineral replacement by biological nitrogen fixation under different soil moisture stresses. J. Agric. Sci. Mansoura Univ., 30: 2259-2273.
- Irshad, M. Tonna, T. Eneji, A.E. and Yamamoto, S. (2002 b): Wheat response to nitrogen source under saline conditions. J. Plant Nutr., 25: 2603-2612.
- **Ishac, Y.Z. (1998):** Inoculation with associative N<sub>2</sub>-fixers in Egypt. 4<sup>th</sup> Inter. Sym. on N-fixation with non-legumes.
- Ishac, Y.Z.; El-Haddad, M.E.; Eid, M.; Saleh, E.A.; El-Borollosy, M.E. and El-Demerdash, M.A. (1984): Effect of seed bacterization and organic amendment on the growth of some economical crop. Agric. Res., Rev. Soil & Water (Ans.) 62: 560.
- Ishac, Y.Z.; El-Haddad, M.E.; El-Kharbawy, M.I. Saleh, E.A.; El-Borollosy, M.A. and El-Demerdash, M.E. (1986 a): Effect of seed bacterization and phosphate supplementation on wheat yield and mycorhizal development. Transactions of the XIII Congress of International Society of Soil Science. Hamburg, 13-20 August., 1986 p. 588.
- Ishac, Y.Z.; El-Haddad, M.E.; Saleh, E,A.; El-Borollosy, M.; El-Demerdash, M.A. and Refaat, A.A. (1986 b): Effect of inoculation with endomycorrhizas and a symbiotic N<sub>2</sub>-fixers on growth of wheat plants. Egypt. J. Microbiol., Special Issue, pp. 57-68.
- Islam, M.T. and Islam, M.A. (1991): A review on the effect of soil moisture stress on the growth phases of wheat. J. of Training and Development (Bangladesh), 4: 49-54.
- **Ismael, A.E. and Badawi, M.A. (1998):** Role of certain composted plant or animal residues in the control of Rotylenchulus reniformis on cowpea. Pakistan J. Nematology, 16: 127-136.
- **Ismaiel, A.B. (2002):** Studies on nutrient uptake by plant as affected by soil conditioners and water stress under green house conditions. Ph.D. Thesis, Fac. Agric. Moshtohor, Zagazig Univ., Egypt.

- Ismail, M.I.; Duwayri, M.; Nadait, M. and Kafawin, O. (1999): The effect of water stress at various growth stages of durum wheat (*Triticum turgidum* L.) geno types derived from crosses utilizing land race variety on yield-related characters. Dirasat. Agric. Sci. 26: 65-73.
- Ismail, S.A.; Morsy, A.A.; Omran, M.M. and Foaad, M.M. (2006): Wheat grain and straw yields, grain quality and some nutrients uptake as affected by nitrogen sources and levels under zinc application. The Second Conference on Farm Integrated Pest Management, 16-18 Jan, 2006.
- Jackson, M.L. (1973): Soil Chemical Analysis . Printic-Hall of India, Private limited New Delhi, India.
- Jagnow, G.; Hoflich, G. and Hoffman, K.H. (1991): Inoculation of non-symbiotic rhizosphere bacteria: possibilities of increasing and stabilizing yields. Angew. Botanik, 65: 97-126.
- Jamal, M.; Nazir, M.S.; Shah, S.H. and Ahmad, N. (1993): Varietal response of wheat to water stress at different growth stages effect on tillers production. Pakistan J. of Scientific and Industrial Res., 36: 524-527.
- **Janssen, B.**H. (1996): Nitrogen mineralization in relation to C/N ratio and decomposability of organic materials. Plant and Soil, 181: 39-45.
- Janzen, H.H. and Bruinsma, Y. (1993): Rhizosphere N deposition by wheat under varied water stress. Soil Biol. Biochem., 25: 631-632.
- Jodic, A.; Luzzati, A. and Nappi, P. (1982): The influence of organic fertilizers, obtained from poplar barks on the correction of iron chlorosis of lupinus albus L. Plant and Soil, 65: 309-317.
- Jones, J.B.; Wolf, B. and Mills, H.A. (1991): "Plant Analysis Handbook". Micro-macro Publishing, Inc., Georgia, USA.
- Kamh, R.N. and Hashem, F.A. (1991): Effect of soil conditioners on barley and biochemical changes in soils. Desert Inst. Bull., A.R.E. 41: 197-218.

- Kandil, A.A.; El-Kalla, S.E.; Sultan, M.S. and Abd El-Al, A.M. (1985): Response of wheat plants to dates and rates of nitrogen and weed control. J. Agric. Sci. Mansoura Univ., 10: 1089-1102.
- Kandil, S.A.; Abo-El-Kheir, M.S.A. and El-Zeiny, H.A. (2001): Response of some wheat cultivars to water stress imposed at certain growth stages. Egypt. J. App. Sci., 16: 82-98.
- Kapulnik,Y.; Kigel,J.;Okana,Y.;Nur,I. and Henis,Y.(1981): Effect of *Azospirllium* inoculation on some growth parameters and N-content of wheat,sorghum and panicum.Plant and Soil,61:65-60.
- Karim, A.J.; Egashira, K. and Abedin, M.J. (1997): Interaction effects of irrigation and nitrogen fertilization on yield and water use of wheat grown in a clay terrace soil in Bangladesh. Bulletin of the Institute of Tropical Agric. Kyushu Univ., 20: 17-26.
- Karim, M.A.; Abdul-Hamid, S.R; Hamid A. and Rahman, S. (2000): Grain growth and yield performance of wheat under subtropical conditions: II. Effect of water stress at reproductive stage. Cereal Res. Commun., 28: 101-107.
- Kassab, O.M.; El-Zeiny, H.A. and Ibrahim, M.M. (2004): Effect of water deficit and micronutrients foliar application on the productivity of wheat plants. Minufiya J. Agric. Res., 29: 925-932.
- Keeling, A.A.; McCallum, K.R. and Beckwith, C.P. (2003): Mature green waste compost enhances growth and nitrogen uptake in wheat (*Triticum aestivum* L.) and oilseed rape (*Brassica napus* L.) through the action of water extractable factors. Bioresource Technol., 90: 127-132.
- Khalefa, A.M. (2002): "Impact of sulphur containing materials on plant nutrients in soils". Ph.D. Thesis Fac. Agric., Moshtohor, Zagazig University, Benha Branch, Egypt.
- Khalil, F.A. and Aly, S.A. (2004): Effect of organic fertilizers as substitutions of mineral nitrogen fertilizer applied at planting on yield and quality of wheat. Minufiya J. Agric. Res., 2: 435-449.

- Khalil, M.E.A.; Badran, Nadia, H. and El-Emam, M.A.A. (2000): Effect of different organic manures on growth and nutritional status of corn. Egypt. J. Soil Sci., 40: 245-263.
- Khan, I.A.; Tiwan, O.P.; Shrivastava, G.K. and Singh, A.P. (2000): Effect of irrigation schedules, levels and split application of nitrogen on yield attributes and yield of latesoun wheat (*Triticum aestivum* L.). Annals of Agric. Res.,21: 561-563.
- Khater, A.W.; Abdel-Maksoud, H.H. and Eid, H.M. (1997):
  Response of some wheat cultivars and their water relations to different irrigation levels in Middle Delta. Egypt. J. Appl. Sci., 12: 98-111.
- Khedr, E., A.F., S.M.; Matta, S.E.G.; Wahba, M.F. and El-Koliey, M.M. (1996): Effect of water regime on yield of some maize cultivars and water relations. Bull. Fac. Agric., Univ. Cairo, 47: 87-98.
- Kheiralla, K.A.; El-Defrawy, M.M. and Sherif, T.H.I. (1993): Genetic analysis of grain yield, biomass and harvest index in wheat under drough stress and normal moisture conditions. Assiut J. Agric. Sci., 24: 163-183.
- **Klute,A.(ed.) (1986):** "Methods of Soil Analysis".Part-1.Physical and Mineralogical Methods.2<sup>nd</sup> (Ed.) American Soc.of Agron., Madison, Wisconsin, U.S.A.
- Korkor, S.A.; El-Badry, D.D. and El-Arquan, M.S. (1984): Wheat yield as affected by methods of N fertilizers application. Egypt. J. Soil Sci., 24: 209-215.
- Kotb, M.Th. A. (1998): Response of wheat to biofertilizer and inorganic N and P levels. J. Agric. Sci. Mansoura Univ., 12: 4067-4078.
- Krishnakumari, J.C.; Bajaj, J.C. and Ezzaman, W.U. (1988): Effect of interaction of different levels of soil moisture and potassium on the dry matter production and potassium uptake by Hordium vulgare (barley) in different soils. Plant and soil, 109: 294-296.
- **Krol, M.J. (1999):** Azosprillum-associational bacteria in sustainable agriculture. Folia Universitatis Agriculture Stetinenis, Agriculture, 78: 93-102.

- Li, D.Q.; Zou, Q. and Cheng, B.S. (1992): Effects of soil water stress on osmatic adjustment and elongation growth of wheat leaves. Acta. Botanic Sinica. 34: 122-125.
- Lindsay, W.L. and Norvell, W.A. (1978): Development of DTPA soil test for zinc, iron, manganese and copper. Soil Sci. Soc. Am. J.,42: 421-428.
- Maamoun, H.A. (1994): Physiological response of certain forage crops to drought. M.Sc. Thesis Fac. of Agric. Ain Shams Univ., Egypt.
- Machado, S. (1991): The effect of different moisture regimes on the yield of seven spring wheat varieties in Zimbabwe. CIMMYT, 1991: 399-406.
- Mackay, A.D. and Barber, S.A. (1985): Soil moisture effect on potassium uptake by corn. Agron. J., 77: 524-527.
- Mahmoud, H.M.M. (1994): Microbiological studies on the management of urban wastes. Ph.D. Thesis, Fac. Agric. Moshtohor, Benha Branch, Zagazig Univ., Egypt.
- Mahmoud, M.H.; Alaa-El-Din, M.N.; Imam, M.M. and Arroug, S.M. (1984): Evaluation of biogas manure as a fertilizer for wheat. Agric. Res. Review. Soil and Water (Abstracts), 62 (4C): 548.
- Mahmoud, S.M.I. (2006): Management of balanced fertilization for some crops in sandy and calcareous soils and its role in relieving drought and salinity conditions". Ph.D. Thesis, Fac. Agric., Moshtohor, Benha University.
- Mali, G.C.; Gupta, S.K. and Lal, P. (1993): Effect of organic and inorganic materials on the properties of vertisols and yield of wheat. National Seminar on Development Indian. Soc. Soil Sci., October 8-12, 1993. Abstracts. pp. 63.
- Malik, K.A. and Bilal, R. (1988): Survival and colonization of inoculation bacteria kallar grass rhizosphere and quantification of N<sub>2</sub>-fixing. Plant and Soil, 110: 329-338.
- Massoud, A.M.; Salem, H.M. and Awaad, M.S. (2004): Effect of inoculation with Azospirillum and folia spray of Zn and Cu on wheat production and its yield components. Workshop on Agricultural Development in the Arab Nation, Obstacles & Solutions Jan., 20-22 Assiut, Egypt.

- Massoud, O.N.M. (1999): Study on the effect of Azospirillium spp., VA. Mycorrhizae and organic matter amended soil on the plant growth. M.Sc. Thesis, Fac. of Sci., El-Menoufia Univ.
- McCutchan, H. and Shacker, K.A. (1992): Stem-water potential as a sensitive indicator of water stress in pure trees (*Prunus domestica* L. cv. Frensh). J. Amer. Soc. Hort. Sci.,: 607-611.
- McMaster, G.S.; Wilhelm, W.W. and Bartling, P.N.S. (1994): Irrigation and cultur contribution to yield and yield components of winter wheat. Agron. J., 86: 1123-1127.
- Mengel, K. and Kirkby, E.A.(1987): "Priciple of Plant Nutrition" International Potash Institute, Bern, Switzerland.
- Mercedes, M.A.; Hons, F.M. and Haby, V.A. (1993): Nitrogen fertilization timing effect on wheat production; N uptake efficiency and residual soil nitrogen. Agron. J., 85: 1198-1203.
- Metwally, S.G. (2000): Fertilizer use efficiency of wheat as affected by microbial inoculation and soil conditions. Ph.D. Thesis, Fac. of Agric., Mansoura Univ., Egypt.
- Metwally, S.M. and Khamis (1998): Comparative effect of organic and inorganic nitrogen sources applied to sandy soil on availability of nitrogen and wheat yield. Egypt. J. Soil Sci., 38: 35-54.
- Minged, Li, Zheng-Sheng Xian; Li-MD; Zheng-SX (1996): Human provincial institute of soils and fertilizers, Human, China Soils and Fertilizers-Beijing, 4: 10-12; 3 ref.
- **Mohamed ali, G.G. (1990)**: Effect of irrigation interval on bread wheat yield components in northern Sudan. Rachis, 9: 41-43.
- Mohamed, M.R.M.; Haggag, A.A. and Abd El-Salam, H.Z. (2006): Effect of nitrogen fertilization with calcium and magnesium application on growth, yield and nutrients content of wheat plant. J. Agric. Sci. Mansoura Univ., 31: 1753-1760.
- Moharram, T.M.M.; Safwat, M.S.A.; Farghaly, M.M. and Ali, M.Z.H. (1994): Effect of cerealin (Bacillus Plolymexa) inoculation under graded level of inorganic and organic nitrogen on growth and nitrogen fixation of wheat .Egyptian-French Semminar On Biological Nitrogen Fixation Associated With Cereal Crops. Cairo. Egypt.

- Mohsen, K.; Ebrahim, H. and Magada, M.A. (2004): Physiological response of wheat to foliar application of zinc and inoculation with some bacterial fertilizer. J. of Plant Nutri., 27: 1859-1874.
- More, S.P. (1994): Effect of farm waste and organic manures on soil properties, nutrient availability and yield of rice, wheat grown on sodic soil. J. Indian Soc. Soil Sci., 42: 253-256.
- Morsy, M.A.; Abdallah, A.R. and Kishk, M.A. (1982): Effect of soil amendments on improvements of the newly reclaimed sand calcareous soils of Minia Governorate. 1<sup>st</sup> Nat. Conf. In the problems of land degradation in Egypt (25 February, 1982, Minia Univ., Egypt).

Moselhy, N.M.M. (1995): Raising wheat under desert conditions in Egypt. Ph.D. Thesis, Fac. Agric. Zagazig Univ. Egypt.

- Mostafa, M.A.; AbuGalal, E.; Derar, R.A. and Wahdan, M.E.A. (2004): Response of growth and nutritional status of wheat and maize to inoculation, nitrogen sources and their application. J. Environ. Sci. Inst. of Enviro. Studies and Research.
- Mostafa, M.M. (2001): Nutrients uptake and dry matter yield of barley as affected by salinity of irrigation water and addition of organic materials. Zagazig J. Agric. Res., 28: 533-552.
- Mowafy, S.A.E. (2002 a): Effect of organic manuring and splitting of different levels of nitrogen on wheat under sprinkler irrigation in sandy soils. Zagazig J. Agric. Res., 29: 51-72.
- Mowafy, S.A.E. (2002 b): Effect of nitrogen fertilization on yield floral fertility and inter and extra spikelet composition of some wheat cultivars in sandy soils. Zagazig J. Agric. Res., 29: 421-451.
- Muhammed, J.; Nazir, A.; Shah, S.H. and Shah, N.H. (1996): Wheat yield components as affected by low water stress at different growth stages. Effect on ear length, grain weight and number of grain per ear. Sarhad J. of Agric., 12: 19-29.
- Munir, A.A.E.; El-Beially, L.E.M.A.; Yousif, H.Y.M. and El-Karamny, M.S. (2001): Effect of irrigation intervals and seeding and nitrogen fertilizer rates on yield and yield components of wheat. Al-Azhar J. Agric. Res., 34: 69-83.

- Munir, A.A.E.; El-Krmany, M.S. and Abo-Ellil (2000): Effect of irrigation and nitrogen fertilizer on yield and yield component of some wheat cultivars. Al-Azhar J. Agric. Res., 32: 73-88.
- Murphy, J. and Riley, J.P. (1962): A modified single method for the determination of phosphate in natural waters. Analytica Chemica Acta., 27: 31-36.
- Narolia, R.S. and Pareek, R.G. (2004): Response of wheat to nitrogen fertilization and its time of application on yields and economics. J. of Eco-Physiology., 7: 165-166.
- Narvaez, C.E.; Gomez, C.R. and Rojas, L.A. (2000): Effect of the organic materials cowpea, chicken manure and compost on the exchangeable soil aluminum and on maize crop development. XI Colombian Congress of Soil Science, Pipa, Colombia. Suelos-Ecuatoriales, 30: 125-131.
- Nayak (1997): Effect of nitrogen and zinc on wheat (*Triticum aestivum*) yield and nutrients uptake under partially reclaimed sodic soils. Indian J. of Agron., 42:293-296.
- Negm, M.A.; El-Sayed, M.H. Ahmed, A.S. and Abd El-Ghani, M.M. (2002): Wheat and sorghum response to biocomposite compost and sulphur added to a calcareous soil. Zagazig J. Agric. Res., 29: 1973-1985.
- Nieto, K.F. and Frankenberger, W.T.Jr. (1990): Influence of adenine, isopentyl alcohol and azotobacter chroococcum on the growth of raphanus sativus. Plant and Soil. 127: 147-156.
- Nirale, A.S. (1997): Study of 32 p uptake as an indicator in screening test for drought tolerance in wheat cultivars. J. Nuclear Agric. Biol., 26: 219-226.
- Noel, T.C.; Sheng, C.; Yost, C.K.; Pharis, R.P. and Hyres, M.E. (1996): Rhizobium leguminosarum as a plant growth promoting rhizobacterium: direct growth promotion of canola and lettuce. Can. J. of Microbiol., 42: 279-283.
- Nour El-Dein, N.A.; Ragab, M.A. and Abou-Gabal, E.L. (1986):
  Differential response of maize plant to soil drought during specific growth stages. Proceeding of the Second Conf. of Agron., Egypt, 1: 309-320.

- Olsen, S.R.; Cole, C.V.; Watanabe, F.S. and Dean, L.A.C. (1954):

  Estimation of available P. Washington D.C.V.S.

  Government Printing Office.
- Omer, M.N.A.; Hegazi, M.H. abd El-Aziz, A.; Abo Soliman, M.S. and Sobhi, M.M. (1991): Effect of inoculation with Rhizobacteria on yield of wheat under graded levels of nitrogen fertilization. Ann. Agric. Sci., Ain Shams Univ., Cairo, 36: 99-104.
- Ompal, S. and Panwar, J.D.S. (1997): Effect of nitrogen fixing and phosphorus solubilising bacteria on nutrient uptake and yield of wheat. Indian J. of Plant Physio., 2: 211-213.
- Page, A.L.; Miller, R.H. and Keeny, D.R. (1982): Methods of soil Analysis Part II: Chemical and Microbilogical Properties. (2<sup>nd</sup> ed) American Soc. of Agron. Madison, Wisconsin, U.S.A.
- Pal, S.K (1992): Effect of high temperature and water stress on grain yield of wheat. Dissertation Abstracts International. B, Sciences and Engineering, 52: 11, 5590 B-5591 B; Abstract of Thesis, University of Saskatchewan, Canada, 1990, 212 pp., available from University Microfilms, Inc.
- Palazzo, D.; Capotorti, G.; Montemurro and Sunseri, F. (1997):

  Productive responses of herbaceous crops to the inoculation of Azospirillum. Informatore Agrario, 53: 53-55. (c.f. CAB Abstract 1996-1998).
- Patel, A.L. and Singh, J.(1998): Nutrients uptake and distribution in aerial parts of wheat under water stress at different growth stages. Annals of Agric. Bio. Res., 3:5-8.
- **Pessarakli, M. and Fardad, H. (1995):** Nitrogen (total and N<sup>15</sup>) uptake by barley and wheat under two irrigation regimes. J. of Plant Nutrition, 18: 2655-2667.
- Rab, A.; Jensen, H.E. and Mogensem, V.O. (1984): Dry matter production of spring wheat subjected to water stress at various growth stages. Cereal. Res. Communications, 12: 19-25.
- Radwan, F.I. and El-Nimr, H.M. (1996): Effect of soil nitrogen application and biofertilization on yield and yield components of wheat, Adv. in Agric. Res., 1: 45-55.

Radwan, S.A.; Bayoumi, N.A.; Shehata, A.A. and Shalaby, O.E. (1993): Effect of nitrogen levels and composting materials on some macro and micro nutrients uptake by wheat plants. Zagazig J. Agric. Res., 20: 937-952.

Raj, S.N. and Gaur, A.C. (1988): Characterization of azotobacter sp. and effect of azotobacter and azospirillum as inoculant on the yield and uptake of wheat crop. Plant and Soil, 104: 131-

144.

Ram, P.; Dwivedi, D.P.; Pandey, S.N.; Singh, S.K.; Singh, T.K. and Verma, S.M. (2004): Effect of varieties and nitrogen doses on growth and yield of wheat in saline alkali soil under late sown conditions. Plant Archives, 4: 351-354.

Rane, J.; Maheshwari, M. and Shantha, N. (2001): Effect of preanthesis water stress on growth, photosynthesis and yield of six wheat cultivars differing in drought tolerance. Indian J. of Plant Physio., 6: 53-60.

Rayan, A.A.; El-Marsafawy, S.M. and Mohamed, K.A. (1999):
Response of some wheat varieties to different sowing dates
and irrigation regime in upper Egypt. Third Conf. on Far,
Irrig. Agroclimatology Sweri, ARC, Egypt.

Reda, M.M.A. (2001): Effect of organic, inorganic and biofertilization on improving some properties of calcareous soil and its productivity of maize plants. J. Agric. Sci. Mansoura Univ., 26: 5085-5098.

Rees, R.M.; Roelcks, M.; Li, S.X.; Wang, X.Q.; Li, S.Q.; Stockdal, E.A.; Mc taggart, I.P.; Smith, K.A. and Rochter, J. (1996): The effect of fertilizer placement on nitrogen uptake and yield of wheat and maize on Chinese loess soils. Nutrient Cycling in Agroeco-system, 47: 81-91.

Rodd, A.V.; Warman, P.R.; Hicklenton, P. and Webb (2001):

Comparison of N fertilizer, source-separated municipal solid waste compost and semi-solid beef manure on the nutrient concentration in boot-stage barley and wheat tissue. Canadian J. of Soil Sci., 82: 33-43.

Romero-Lima, M.D.; Santos, Trinadad, A.; Espinosa, Gracia, R. and Cerrato, Ferrera, R. (2000): Yield of potato and soil microbial biomass with organic and mineral fertilizers. Agrociencia. 34: 261-269.

- Ruiz-Lozano, I.M.; Azcon, R. and Gomez, M. (1995): Effects of arbuscular mycorrhizal glomus species on drought tolerance: physiological and nutritional plant responses. Applied and Environmental Microbiology, 61: 456-460.
- Saber, M.S.M. (1993): A multi-strain biofertilizer. The Sixth International Symposium on Nitrogen Fixation With Non Legumes. Ismalia, Egypt. 6-10 September.

Sabry, A.M. (1990): A comparative study of the effect of organic and mineral fertilizer on the yield and phosphorus uptake. M.Sc. Thesis, Fac. of Agric. Al-Azhar Univ., Egypt.

- Sadek-Iman, M.M. and Yousef, M.A. (2000): Evaluation of some promising bread wheat lives responsive to N<sub>2</sub>-biofertilizer under nitrogen levels in sandy soil. J. Agric. Sci. Mansoura Univ., 25: 6699-6708.
- Safwat, M.S.A.; El-Mohandes, M.A.O.; Horst, W.I.; Schenk, M.K. (ed.); Goldbach, H.; Olfs, H.W.; Romheld, V. (2001): The use of associative diaztorphs with different rates of N fertilization and compost to enhance N<sub>2</sub> fixation and growth of wheat. Plant Nutrition Food Security and Sustainability of Agro-Ecosystems Through Basic and Applied Res. Fourteenth International Plant Nutrition Colloquium, Hannover, Germany, 662-663.
- Sakr, A.A.; Rizk, S.A. and El-Sebaay, A.S. (1992): Effect of organic manures on plant growth and NPK uptake by wheat and maize plant. Egypt. J. Soil Sci., 32: 249-263.
- Saleh, A.L.; Abd El-Fattah, A. and Taalab, A.S. (2000): Response of yield and nutrients uptake of cowpea plant to application of some organic fertilizers. Egypt. Soil Sci. Society (ESSS) Golden Jubilee Congress on Soil and Sustainable Agriculture in The New Century, Oct. 23-25, 2000, Cairo, 160.
- Saleh, M.E. (2003): Response of Egyptian and Mexican wheat cultivars to different nitrogen fertilization levels under U.A.E. condition. Zagazig J. Agric. Res., 30: 1189-1201.
- Salem, F.S. (2003): Effect of some soil amendments on the clayey soil properties and some crops production. Minufiya J. Agric. Res., 28: 1705-1715.

- Salem, F.S.; Gebrail, M.Y.; Easa, M.O. and Abd El-Warth, M. (2004): Raising the efficiency of nitrogen fertilization for wheat plants under salt affected soils by applying some soil amendments. Minufiya J. Agric. Res. 29: 1059-1073.
- Salem, M.A. (2000): Response of maize (Zea mays L.) growth and yield to chemical and bio-fertilization. Zagazig J. Agric. Res., 27: 845-858.
- Salem, M.O.; El-Shall, A.A.; Wassif, M.M. and Hilal, M. (1990): Effect of sulphur, nitrogen and organic manure application on the growth characters of wheat plant under calcareous soil and saline irrigation water conditions. Egypt. J. of Soil Sci., 30: 183-198.
- **Salwau, M.I.M. (1994):** Effect of soil and foliar application of nitrogen levels on yield and yield components of wheat (*T. aestivum* L.). Annals of Agric. Sci., Moshtohor, 32: 705-715.
- Sarhan, A.A. and Abd El-Maksoud, M.F. (2002): Response of some wheat cultivars to soil and foliar applications of different levels of nitrogen under sandy soil conditions. Egypt. J. Appl. Sci., 17: 543-560.
- Schnurer, j. and Rosswall, T.(1987): Mineralization of nitrogen from 15N labelled fungi, soil microbial biomass and roots and its uptake by barley plants. Plant and Soil, 102:71.
- Seddik-Wafaa, M.A.; El-Maghraby, T.A. and Gehan, H. Youssef (2005): A study on the efficiency of phosphorus fertilizers for wheat production grown in a sandy soil under the effect of organic manure application. Egypt. J. of Appl. Sci., 20: 334-348.
- Shalaby, E.E.; El-Ganbeehy, M.M. and El-Sheikh, M.H. (1993):
  Response of several wheat genotypes to different levels of nitrogen fertilization. Minufiya J. Agric. Res., 1: 1079-1096.
- Shams El-Din, H.A.I. (1989): The efficiency of liquid ammonia and some solid nitrogenous fertilizers on wheat growth and yield. M.Sc. Thesis Fac. Agric. Mansoura Univ. Egypt.
- Sharief, A.E.; El-Kalla, S.E.; Leilha, A.A. and Mostafa, H.E.M. (1998): Response of some wheat cultivars to nitrogen fertilizer levels and biological fertilization. J. Agric. Sci. Mansoura Univ., 23: 5807-5816.

- Sharma, C.M.; Kaul, S. and Bhardwal, S.K. (1995): "Agronomic effectiveness of udaipur rock phosphate as influenced by organics in wheat (Triticum aestivum), maize (Zea mays) cropping sequence". Indian J. Agron., 40: 93-95.
- Sharma, D.K.; Singh, K.N. and Chillar, R.K. (1984): Effect of time of first irrigation on yield of wheat in Alkali soils. Indian J. Agron., 30: 459-471.
- Shehata, H.M.A. (1991): Effect of late nitrogen dressing with balanced nutrition on wheat in the calcareous soil of south Sinai. Desert Inst. Bull., 2: 229-240.
- Shivankar, S.K.; Joshi, R.P.; Shivankar, R.S. (2000): Effect of biofertilizers and levels of nitrogen and phosphorus on yield and uptake of N and P by wheat under irrigated condition. J. of Soils and Crops., 10: 292-294.
- Singh, A.K. (1991): Response of irrigated wheat (*Triticum aestivum*) to nitrogen and phosphorus on farmer's field in Ganga Diara of Dihar. Indian J. Agron., 36: 46-52.
- Singh, G. and Brar, S.S. (1994): Tillage and nitrogen requirement of wheat (Triticum aestivum) sown after rice (Oryza sativa). Indian J. Agron., 39: 162-163.
- Singh, J. and Patel, A.L. (1995): Dry matter distribution in different parts of wheat under water stress at various growth stages. Crop. Res. Hisar, 10: 195-200.
- Sisworo, E.L.; Eskew, D.L.; Sisworo, W.H. Rasjid, H.; Kadarusman, H.; Sola huddin, H. and Soep-Ardr, G. (1990): Studies on the availability of Azolla N and urea-N for rice growth using N<sup>15</sup>. Plant and Soil, 128: 209-220.
- Snedecor, G.W. and Cochran, W.G. (1969): "Statistical Methods". 6<sup>th</sup> Ed., Iowa State Univ. Press, Ames. Iowa, USA.
- Somporn, D.; Domyos, S. and Oastes, C.G. (1999): Efficiency of selected organic wastes on yield of baby corn. The 37<sup>th</sup> Kasetsart University Annual Conference, 3-5 February 1999, 92-97.
- Sun, C.; Bai, S.; Bai, B.; Li, Y. and Xiao, W. (2003): Effects of water stress on root growth and physiological character of wheat seedling. J. of Jilin Agric. Univ., 25: 485-489.

Sushila, R. and Gajendra, G. (2000): Influence of farmyard manure, nitrogen and biofertilizers on growth, yield attributes and yield of wheat (*Triticum aestivum* L.) under limited water supply. Indian J. of Agron., 45: 590-595.

**Swarup, A. (1996):** Influence of nitrogen and potassium on yield, available soil N and K and their uptake by wheat in saline soil under subsurface drainge system. J.of Potassium Res.,

12:1999-2004.

**Taalab, A.S. (1999):** Evaluation of the effect of some organic materials applications on nutrients availability and crop yield in a sandy soil. Ph.D. Thesis Faculty of Agriculture, Cairo University, Egypt.

Taha, A.A.; El-Hamdi, Kh.H.; Khaled, E.M. and Abo El-Kheer, A.M. (1991): Effect of presowing soaking treatment with gibberellin and humic acid on germination, plant growth and nutrients uptake. J. Agric. Sci. Mansoura Univ., 16: 3020-3030.

Taha, A.A.; Modaihsh, A.S. and Mahjoub, M.O. (2006): Effect of some humic acids on wheat plant grown in different soils. J. Agric. Sci. Mansoura Univ., 31: 4031-4039.

**Taha, M.B. (2000):** Effect of using some organic amendments for improving the productivity of coarse textured soils. M.Sc. Thesis, Fac. Agric., Minia Univ. Egypt.

Tamaki, M.; Ashraf, M.; Imai, K. and Moss, D.N. (1999): Water and nitrogen effects on the growth and yield of spring wheat. Environment. Control in Biology. 37: 143-151.

**Tran, T. and Tremblay ,G. (2000):** Recovery of <sup>15</sup>N-labeled fertilizer by spring bread wheat at different N rates and application times. Canadian J. of Soil Sci., 533-539.

Tuivavalagi, N.S. and Silva, J.A. (1996): The effect of chicken manure and inorganic fertilizers on soil properties. J. of South Pacific Agriculture, 3: 37-41.

Vanlavwe, B.; Aihou, K.; Aman, S. and Lwutfor, E.N.O. (2001): Maize yield as affected by organic input and urea in west African, Moist Savanna. Agron. J., 93: 1191-1199.

- Veleck, P.L.G.; Fillary, L.R.P. and Burford, J.R. (1981): Accessions transformation and loss of nitrogen in soil of the arid region. Plant and Soil., 58: 133-145.
- Vidyorthy, G.S. and Nisra, R.V. (1982): The role and importance of organic materials and biological nitrogen fixation in the rational improvement of agricultural production. FAO Soils Bull., 45: 26-37.
- Wahdan, A.A.; El-Naggar, I.M.; Hanna, A.M. and El-Awag, I.I. (1996): Wheat response to irrigation regime and nitrogen fertilization. Zagazig J. Agric. Res., 23: 851-865.
- Wahdan, M.E. (2004): Effect of using bio-fertilizer in minimizing the mineral fertilizers and improving sandy soils properties.

  M.Sc. Thesis, Institute of Envi. Res. Ain Shams Univ.,
  Egypt.
- Walkely, A. and Black, I.A (1934): An examination of the Degtratff method for determining soil organic matter and a proposed modification of the chromic acid Titration method. Soil Sci., 37: 29-38.
- Wang, Z.; Sheng Xiu, L.; Vera, C.L. and Malho, S.S. (2005): Effects of water deficit and supplemental irrigation on winter wheat growth, grain yield and quality, nutrient uptake, and residual mineral nitrogen in soil. Communications in Soil Sci. and Plant Analysis. 36: 1405-1419.
- Warman, P.R. and Cooper, J.M. (2000): Fertilization of a mixed forage crop with fresh composted chicken manure and NPK fertilizer effects on dry matter and tissue N, P and K. Canand. J. Soil Sci., 80: 337-344.
- Whalen, J.K.; Chang, C.; Clayton, G.W. and Carefoot, J.P. (2000): Cattle manure amendments can increase the pH of acid soils. Soil Sci. Soc. Am. J., 64: 962-966.
- Yadav, K.S.; Singh, D.P.; Sunita, S.; Neeru, N. and Lakshminerayana, K. (2000): Effect of Azotobacter chroococcum on yield and nitrogen economy in wheat (Triticum aestivum) under field conditions. Environment and Ecology., 18: 109-113.

Youssif, A.M.; El-Fouly, A.H.M.; Youssef, M.S. and Mohamedien, S.A. (2001): Effect of using organic and chemical fertilizers in fertigation system on yield and fruit quality of tomato. Egypt. J. Hot., 28: 59-77.

**Zaghloul, R.A.; Amer, A.A. and Mostafa, M.H. (1996):** Efficiency of some organic manures and biofertilization with *Asozpirillum brasilense* for wheat manuring. Annals Agric. Sci. Moshtohor, 34: 627-640.

Zahran, M. and Mosalem, M.E. (1993): Effect of foliar application of some micronutrients under different levels of nitrogen on the productivity of wheat. J. Agric. Res. Tanta Univ., 19: 52-62.

**Zeidan, M.S. and El-Kramany, M.F. (2001):** Effect of organic manure and slow-release N-fertilizers on productivity of wheat (*Triticum aestivum* L.) in sandy soil. Egypt. J. Agron., 23: 59-70.