

REFERENCES

- Abdel-Salam, A. A. and A. A. Abdel-Haleem (1994).* Quantitative fertility rating indices for principal macro- and micronutrients in Egypt soils. A final report on NARP Project No. 55-C2-15, Fac. Of Agric., Moshtohor, Zagazig Univ.
- _____ *and F. T. Z. El-Sheikh (1994).* Nutrient balance and interaction between Fe, Mn, Zn or Cu micronutrients and (N+P) macronutrients on forage sorghum. Ann. Agric. Sci., Moshtohor, 32(1) 155-168.
- _____ „ _____ *and S. A. H. Allam. (1993).* Response of maize grown on clay fertile soil to foliar application of micronutrient mixtures. Egypt J. Appl. Sci., 8 (12): 590-598
- Abdel-Naim, M (1990).* Response of corn to the application of phosphorus and potassium in calcareous soils. 10th World Fertilizer Congress of C.I.E.C. Efficient Fertilization, Manuring and Irrigation for Improving Crop Yield, Food Quality and Renewable Resource, 21-27 Oct., Nicosia – Cyprus.
- _____ *and R.M.El-Awady(1990).*Effect of potassium and zinc application at two irrigation intervals with sewage water on the grain yield of corn in sandy soil. 10th World Fertilizer Congress of C.I.E.C. Efficient Fertilization, Manuring and Irrigation for improving Crop yield, Food Quality and Renewable Resource, 21-27, Oct., Nicosia-Cyprus.

Abu-Grab , O.S and A.O. Sanna (1999). Sensitivity of maize plant to drought at different growth stages in relation to potassium fertilization . J. Agric. Sci, . Mansoura, Univ. 24(3): 959 – 971.

Ajay. K; H. H. Roy and A. K. Sarkar, (1991). Response of maize to potassium in soils of Umendanda series of Ranchi. J.of Res., Birs- Agri. Univ., 3(1): 43 –46. (c. f. Computer research).

Amer, Samia, M; G.M. Mahgoub and S.A. Khesr (1995). Response of maize to nitrogen, phosphorus, and potassium. Zagazig J. Agric. Res. 22(2): 367-398.

Ankerman, D. and L. Large (1974). Soil and plant analysis. A.&L. Agricultural Laboratories, Inc., New Yourk, U.S.A.

Anon (1985). Trace elements deficiency “The production & The solution” Publ. By Micro feed, A division of AMB Chemicals Limited Poleacre Land, Woodley, Stockport, Cheshire SK6 IPO.

——— (1986). Micronutrients and plant nutrition problems in Egypt. Res. Project Book, Ten years for evaluation the utilization of micronutrient fertilizers in the Egyptian agriculture. Pulbl. Papers (1980-1984), National Res. Center, Egypt.

Archer, J. (1988). Crop nutrition and fertilizer use. 2nd Ed Farming Press Book, Wharfedale Road, Ipswich IPI4 LG, UK.

Reference

- Assey, A. A.; F. T. Oraby; M. M. Mohamed and A. A. Sharan, (1992).* Effect of nitrogen, phosphorus and potassium fertilization on intercrop yield of corn and soybean. Proc. 5th Conf.. Agron., Zagazig. Vol. (2):624-670.
- A.O.A.C. Association of Official Analytical Chemists (1990).* Official Methods of Analysis. 15th Ed., A.O.A.C Washington D.C. U.S.A.
- Barsoum, M. S. and M.A. Abdel-Gawad (1989).* Effect of foliar and soil application of some micronutrients of growth and yield of sordan plants under calcareous soil of Maryut. Ann. of Agric. Sci., Moshtohor, 27(4): 2071-2080.
- Bordoli J. M; A.P. Mallaino, (1998).* Deep and shallow banding of phosphorus and potassium as alternatives to broad cast fertilization for no-till corn. Agron. J., 1990 (1): 27-33.
- Brar, M. S and S. Rajinder. (1995).* Potassium depletion and effect of K fertilization on soil K content, growth and K concentration of maize crop. J. of Potassium Res. 11 (2): 154-159.
- Brown, J.D and O. Lilliland. (1964).* Rapid determination of potassium and sodium in plant material and soil extracts by flame photometry. Proc. Amer. Soc. Hort. Sci., 84 : 341-346.
- Chittapur, B. M. and B.T. Pujari (1995).* Response of maize to population and fertilizer levels in the North Eastern Transitional Tract of Karnataka Farming Systems, 11 (3-4) 45-47. (c. f. Computer research).

Reference

- Dravid, M. S. and N. N. Goswani (1986).** Soil salinity, fertility, moisture interactions in relation to yield and nutrient uptake by wheat (*Triticum aestivum*, L.) and maize (*Zea mays*, L.). Ann. Of Agric. Res. 7 (1):89-102. (c. f. Computer research).
- Dubois, M; K. Gilles; J.K Hamelton; P.A Rebers; and F. Smith (1951).** A calorimetric method for the determination of sugars. Nature, 168-176.
- El-Hattab, A.H.; M.S.Gheith; Sh.A. Shaban and A.A.Bedeer (1986).** Plant growth and yield of some micronutrients and their time of application. Proc. 2nd Con. Agron. Alex. Egypt. Vol. 1:277-293.
- El-Oskkary, I. H. and N. H. Baghdady (1983).** Absorption of iron by corn plants grown in sand culture from FeSO₄ or Fe-EDTA as influenced by K₂SO₄ additions. Landwirtschaftliche-Forschung Heft, 39:276-282 (c. f. Computer research).
- El-Sheikh, F.T.Z; H.M.M Abdel-Dayem and M.K. El-Khatib; (1999).** Effect of Fe, Mn, Zn and Cu nutrients on growth, grain yield and quality of three maize varieties. Ann. of Agric. Sci., Moshtohor; 37(1):135-157.
- Farah, M. A. and M. A. Hatata (1985).** Effect of N, Zn and Fe application on corn in alluvial soil. Acta Agrobotanica. 38 (1) 41-47.(c.f. Computer research).

- _____ ; _____ and *M. A. Barakat (1984)*. Effect of nitrogen, zinc and iron application on corn in alluvial soil. *Agrochimica* 28(1): 48-55. (c. f Computer research).
- Frie, E;K. Payer and E.Schutz (1964)*. Determination of phosphorus by ascorbic acid method. *Landwirtschaftliche-Forschung Heft*, 3:318-328.
- Gardner,F.P; Pearce, R.B. and R.L.Mitchell (1985)*. Physiology of crop plants. The Iowa State Univ. Press. Ames, Iowa, U.S.A. PP: 98-131.
- Genaidy, S.; N.Omar; M.Sobh and A.Kaloush (1987)*. Role of nitrogen, micronutrient-fertilizers and plant density on maize (*Zea mays L.*) yield in Northern Delta soils. 1st Conf. of fertilizers, soils and water Res. Inst. Cairo, April, Paper No.55 PP:346-358.
- Ghosh, B. N. and R. D. Singh, (1997)*. Response of maize to applied potassium and its critical limit in soil and plant in mid hills of U. P. *J. of Potassium Res.* 13 (3-4): 257 –260.
- Himayatullah, M. and M.Q. Khan, (1998)*. Response of irrigated to maize trace elements in the presence of NPK Sarhad J. of Agric. 14 (2): 117 – 120. (c. f. Computer research).
- Hochmuth, G. J.; E. Hanlon; O. S Hair; J. Carranza and M. Lamberts (1995)*. On-farm evaluations of university of Florida N, P, and K recommendations for sweet corn on Rochdale and Marl soils. *Proc. of The Florida State Hort. Soc.* No. 108:184 –192.

Reference

- HSU. H. H and H. D. Ashmead (1984).* Effect of urea and ammonium nitrate on the uptake of iron through leaves. J. of Plant Nutrition, 7(1-5): 291 – 299.
- Idris, J.; K. Mandal and R.C. Yadav (1997).* Response of maize cultivars to K application in a Calcior Thent of North Bihar. J. of Applied Biology. 7(1-2): 88-92. (c. f Computer research).
- Imas. P; A. Feigin; P. Adams (ed.); A.p. Hidding (ed.); J.A. Kipp (ed.) and C. Sonneveld (ed.) (1995).* Yield and water use efficiency of sweet corn grown in solution culture as affected by KNO₃ and salinity levels. International Symposium on Growing Media and Plant Nutrition in Horticulture, Naald WIJK, Nehterlands, 10-16 Sept.1994. Acta Horticulturae, No. 401: 301-308.
- Iqbal, J; A. Hussain; U. I. H. A. Q. Chaudhry; S. M. Mehdi and I. A. Chaudhry (1995).* Response of maize to applied potassium in lyallpur soil series. J. of Potassium Res. 11(3-4): 377-380.
- Ivoilov. A. V; N. T. Boriskin and M. N. Bessonova. (1993).* The response of maize to fertilizers depending on basic soil cultivation methods and weather conditions. Agrokhimiya 21 (5): 31-38.(c. f Computer research).
- Jadav, N. J. B. S. Yadav and M. S. Patel (1991).* Response of maize to lime and potassium application in a calcareous soil. 1-Dry matter yield and K availability. J. of Potassium Res. 7 (3): 207-213.

Reference

- Kadry, W., S.I. Basselouise and A.A. Hosny (1987).** Effect of zinc, iron, and magnesium, on yield and yield components of Giza maize variety. Ann. of Agric. Sci. Moshtohor 25(4): 1903 – 1911.
- Kamh, R. N.; M. A. El-Kadi; T. El-Kdbia and M. S. Dahdoh (1986).** Effect of Zn, P and K applications on some crops. Raised on Alluvial and Calcareous Soils. Desert Instit – bull., A. R. E. 36, No.2:
- Kandil, A.A; M.S.Sultan and A.N.Ahid (1984) .** Differential response of corn (*Zea mays*, L.) due to nitrogen, phosphorus and potassium fertilization. Mansoura, J. Agric. Sci. 9(2): 153-163.
- Khalifa, M.M (1970).** Effect of, N,P,K fertilization on yield and yield components of maize .M.Sc. Thesis, Fac. of. Agric, Cairo Univ, Egypt.
- Kumpawat, B.S. and S.S. Rathore (1995) .** Response of maize (*Zea mays* L.) and wheat (*Triticum aestivum* L.) cropping sequences to fertilizer application. Indian . J . Agron. 40(1) : 26-29 .
- Mallarino, A. P.; J. M. Bordoli and R. Borges (1999).** Phosphorus and potassium placement effects on early growth and nutrient uptake of no-till corn and relationships with grain yield. Agron. J. 91 (1): 27-45.

Reference

- Manna. M. C. and A. P. Singh (1990).** Distribution of potassium and the response of maize to its application in some soils of Eastern Uttar Pradesh. *Environment and Ecology*, 8 (2): 635-638. (c. f. Computer research).
- Marschner, H. (1995).** Mineral nutrition of higher plant. Academic Press Inc. London LTD.
- Mengel, K. and E.A. Kirkby (1978).** Principles of plant nutrition. Inter. Potatb-Inst., Berne Switzerland.
- Ministry of Agriculture of Egypt (1998).** Agriculture Economics Statistics Data of Agriculture. Ministry of Agriculture of Egypt (In Arabic).
- Mishra. O. R; U. S. Tomar; R. A. Sharma and A. M. Rajput (1995).** Response of maize to chemicals and biofertilizers. *Crop. Res. Hisar*, 9(2): 233-237. (c. f. Computer research).
- Mohamed, M.S. (1987).** Fertility status of some newly reclaimed soil. M. Sc. Thesis, Fac. Agric. Al-Azhar. Univ. Egypt.
- , **E.S.I. (1998).** Response of maize (*Zea mays L.*) to Potassium fertilization and foliar spray of urea + Mn + Zn solution. *Assiut J. of Agric. Sci.*, 29(3) 135 –145.
- Raymundo, R.L and O. Migual (1992).** Response of sweet corn (*Zea mays L.*) to varying levels of inorganic and organic fertilizer. *Philippine J. Crop. Sci.* 17(1) : 22.

Reference

Roy. H. K and A. Kumar (1993). Response of maize to Potassium in soils of Jorsol-2 series of Singhbhum. J. of the Indian Soci. of Soil Sci., 41(4): 787 – 788.

—————.; *A. Kumar: A.K. Sarkar and A. Kumar (1991).* Response of maize to potassium in soils of Umendanda series of Ranchi. J. Res. Birsa Agric. Univ. 3(1) : 43 – 46 .
(c. f. Computer research).

Sabit, S. A.: Omar, M. A. and Ali, O. M. (1976). Potassium availability in highly calcareous and alluvial soils of Egypt. Availability of non greenhouse conditions. Desert Inst. Bull. 26(1):115-130.

Sarkar, R. K.; D. Shit and A. Chakraborty (1996). Response of maize cultivars to row spacing manure and fertilizer application to rain fed Upland of Bihar Plateau. Indian – Agric., 40 (4) 269 –273.

Shehata, H. M.; A. A. Robishy; M. A. El-Khadi and M. A. Abdel-Salam (1985). Potassium fertilization under conditions of the newly reclaimed highly calcareous soils in Egypt. Part I : In Mediterranean Potash News No.1 Soil Department Desert Institute, Mataria, Cairo, Egypt.

—————.; *M. H. El-Dosouky and M. A. El-Kadi (1990).* Influence of K-fertilization for crops on water use efficiency in calcareous soil. Desert Inst., A. R. E. 40, No 2

Siebold, M. (1974). The influence of potash on stem rot in grain maize. Potash Review Subj. 23, Suite, 44.

Reference

- Snedecor, G.M and W.G. Cochran.(1967).* Statistical methods 6th Ed, Iowa state. Univ. Press Ames. Iowa, U.S.A.
- Sood, R. D; M. Bhargava and R. C. Thakur (1995).* Economic response of N, P, K and Zn application on the yield of rain fed maize in Himachal Pradesh. Farming System 11(3-4): 7-11. (c. f. Computer research).
- Stickler, F.C.; S. Wearden and A.W. Pauli (1961).* Leaf area determination in green sorghum . Agron. J., 53(3): 187-188.
- Surekha, K. and I. V. S. Rao (1997).* Differential response of maize to potassium in vertisols. J. of Potassium Res., 13(3-4) 261-265.
- Tisdal, S. L.: M. L. Nelson and G. D. Beaton (1985).* Soil fertility and fertilizers. 4th Ed., Mc Millan Pup., Co., Inc. New Yourk, U.S.A.
- Varavipour, M. L. S. Devi and S. Mruthunjaya (1995).* Response of fodder maize to potassium and sulphur in two soil series of South India. Current Res. Univ. of Agric. Sci. Bangalore. 24(12): 233-235. (c. f Computer research).
- Willis, J.B.(1960).* The determination of metals by atomic absorption Spectrophotometry. Spectorchem, Acta 16:259.
- Yossef, A. (1997).* Effect of irrigation with waste water and N,P,K fertilization on production and chemical composition of wheat and maize grain under sandy soil conditions M.Sc. thesis, Fac Agric, Cairo Univ Egypt.

Reference