

LITERATURE CITED

- Abo El-Saod, I.; Momtaz, A.; Lashin, H. and Mansor, M. (1974).
The response of flax crop to different levels of salintiy.
Fibra, 19(1/3): 32-43
- Abo El-Soud, M.A.; Amer, A.A.; El-Sabry, W.S.A. and Abo Saliman, M.S.M.
(1990): Effect of soil salinity and inoculation with *Azotobacter*
and Blue-green algae on growth and N uptake of wheat and rice
crops.
J. Agric. Res. Tanta Univ. 16(3): 548-559.
- Amed, A.M.; Heikal, M.M. and Shaddad, M.A. (1978)
Photosynthesis activity, pigment content and growth of *Helianthus*
annuus and *Linum usitatissimum* plants as influenced by
salinization treatments.
Bull. Fac. Sci., Assiut Univ.
(C.F. Ph. D. Thesis by Sonaa El-Gayar (1988).
- Ahmed, A.M., Heikal, M.M. and Shaddad, M.A. (1979).
Growth, photosynthesis and fat content of some oil producing
plants as influenced by some salinization treatments.
Phyton. Austria, 19(3/4): 259-267.
- Allison, L.E. (1964): Salinity in relation to irrigation.
Adv. Agron., 16: 139-180.
- American Oil Chemist's Society (1962).
Official and Tentative methods
of American Oil Chemists Society, 4th.ed. Chicago
- Babu, V.R.; Rao, N.S.; Subbaiah, G.V. and Ranaya, B. (1987).
Effect of saline irrigation water on yield.
International Rice Research Newsletter 12(2): 21-22.
-

- Bakr Ahmed, M.; Hegazi, M.A.; El-Shourbagy, M.N. and Hegazi, A.M. (1970): Physiological studies on the adaptation of plants to salinity. I. The effect of salinity on growth and development of some plants.
Ain Shams Univ., Fac. Agric., Res. Bull. no. 271.
- Bakuniak, E. (1966): The influence of row spacing and the quality of seeds upon the yield of straw and fiber of flax.
Recznan, Naukrain (A); 19-4): 819-837.
(C.F. Field Crop Abst. (1966), 19(1); 338).
- Balashova, R.I. and Tikhvinskii, A. F. (1969).
Anatomical structure of stem and straw and fiber quality in the best specimens from a flax collection.
Sb. statei. Po Uopr. S. Kh. Kirovskoe obl. Navchno. Tekhn. Ovos. Kh. 3. 20-23(Ru) from Referativmys. Zhurnal (1969) 10.55-503).
(C.F. Plant Br. Abst. 42, 5600).
- Balba, A.M. (1960): Effect of sodium water and gypsum increments on soil chemical properties and plant growth.
Alex. J. Agric. Res. 8: 51-64.
- Bernstein, L. (1981): Effect of salinity and soil water regime on crop yields.
Salinity in irrigation and water resources
Civil Engineering, 4: 47-64.
- Bernstein, L. and Hayward, H.E. (1958).
Physiology of salt tolerance.
Ann. Rev. Plant physiol., 9: 25-46.
- Bower, G.A. (1976): The effect of soluble salts on soil water availability.
North Dakota Ag. Exp. sta. Rep. No. 874, Farm, Res., 33(5): 9-14.

Dastur, R.H. and Bhatt, J.G. (1966).

Factors affecting the growth and yield of linseed (*Linum usitatissimum* L.) in Malwa, Madhya Pradesh.

Indian J. Agric. Sci. 35 (2): 141-152.

(C.F. Field Crop Abst. (1966), 19, 1907).

El-Aishy, S.M. (1980): Salinity effects on growth, productivity and anatomical root structure of rice plants.

J. Agric. Res. Tanta Univ. 6(1): 7-10.

El-Farouk, M. (1968): Effect of plant density, nitrogenous fertilizer and irrigation on yield and fiber quality of flax (*Linum usitatissimum* L.). M.Sc. Thesis, Fac. Agric. Cairo Univ.

El-Ganayni, A.A.; Salwa El-Moursi; Abu Hagaza, N.M. and Abd El-Gawad I.A. (1985): Effect of nitrogen levels, row spacing and their interaction on flax (*Linum usitatissimum* L.).

Bull., Fac. Agric., Cairo Univ., 36(1): 35-50.

El-Hariri, D.M. (1964): Effect of light intensity and plant density on growth, fiber development and yield of flax.

M. Sc. Thesis, Fac. Agric., Ain Shams Univ. Egypt.

El-Hariri, D.M. (1968): Factors affecting quality of flax yield.

Ph. D. Thesis, Fac. Agric., Ain Shams Univ.

El-Haroun, M.S. and Shaaban, S.A.. (1984).

Seed and fiber yields and qualities of three flax varieties as influenced by seeding rate.

Minufya J. Agric. Res., 8: 141-156.

- El-Kady, E.A.F. (1985) : Effects of water and fertilizer requirements on the quantative and qualitive characters of flax.
Ph. D. Thesis, Fac. Agric., Kafr El-Sheikh, Tanta Univ., Egypt.
- El-Kady, E.A.F.; Sorour, S.G. and Sahah, A.F. (1988) : Response of three flax cultivars to seeding rate. Proc. 3rd. Egyptian Conf. Agron., Kafr El-Sheikh, 5-7 Sept., 1988. Vol. II:91-98.
- El-Nkhlawy, F. S.; Abd El-bary, A.A. and Bishr, M. A. (1978).
Influence of planting date, seeding rate and nitrogen level on yield and seed characteristics of flax (*Linum usitatissimum* L.).
Alex. J. of Agric. Res. 26(1): 85-92.
- El-Shimy, G.H. (1975): Morphological and anatomical studies on the characteristics of some (*Linum usitatissimum* L.) varieties and their relation to yield.
M.Sc. Thesis, Fac. of Agric. Ain Shams Univ.
- El-Shimy, G.H.; El-Kady, E.A.F. and Mourad, N.K.M. (1993).
Effect of seeding rates and nitrogen fertilizer levels on yield and anatomical manifestations of some flax genotypes
Agric. Res. J. Fac. Agric., Kafr El-Sheikh, Univ. Egypt (In press).
- El-Sweify, A.H.H. (1993).
Evaluation of some promising flax strains in relation to growth, yield and quality.
Ph. D. Thesis, Fac. Agric. Moshtohor, Zagazig Univ. Egypt.
- Francois, L.E.; Donovan, T. and Mass, E.V. (1984).
Salinity effects on seed yield, growth and germination of grain sorghum. Agron. J., 76(5): 741-744.

- Gad, A.Y. and El-Farouk, M. (1978).
Influence of seeding rates and nitrogen levels on yield and some technological characters of flax.
Agric. Res. Rev. 56(8): 79-91.
- Gore, S.R. and Bhagwat, K.A. (1988).
Performance of rice cultivar Mahsuri at different salinity levels.
International Rice Res. Newsletter 13(6): 21.
- Green, A.G. and Marshall, D.R. (1981).
Variation for oil quality in linseed (*Linum usitatissimum* L.).
Austr J. of Agric. Res. 32(4): 599-607.
- Hassan, S.M.M. and El-Farouk, M. (1987).
Effect of planting dates and seeding rates on yield and some technological characters of flax (*Linum usitatissimum* L.).
Ann. Agric. Sci., Fac. Agric., Ain Shams Univ., Egypt, 32(2):1257-1269.
- Hayward, H.E. and Spurr, W.B. (1944).
The tolerance of flax to saline conditions; Effect of sodium chloride, calcium chloride and sodium sulphate.
Amer. Soc. Agron. 36: 287-300.
- Hella, A.M.A. (1983): Analytical studies on flax types under different environmental conditions.
Ph. D. Thesis, Fac. Agric. Cairo Univ.
- Hella, A.M.A.; Nasr El-Din, T. and El-Shimy, G.H. (1986).
The effect of various seeding rates and phosphorus levels on the quantity and quality of some flax cultivars production.
J. Agric. Res., Tanta Univ., 12(3): 678-689.

- Hella, A.M.A.; Mourad, N.K.M. and El-Kady, E.A. (1989).
Comparative study on some flax cultivars.
Moshtohor Ann. Agric. Sci., 27(4): 2105-2120.
- Heikal, M.M.D.; Ahmed, A.M. and Shaddad, M.A. (1980a).
Changes in dry weight and mineral composition of some oil
producing plants over a range of salinity stresses.
Biologia Plantarum, 22(1): 25-33.
- Heikal, M.M.D., Ahmed, A.M. and Shaddad, M.A. (1980 b).
Salt tolerance of some oil producing plants.
Agric. Belgium, 28(3): 437-453.
- Hilal, M.H. (1971): Effect of petroleum mulch, saline water irrigation and
organic matter addition on surface crust of calcareous soils and
seedlings of some crops.
Arab. Conf. Petrochem., Kuwait, March.
- Horodyski, A. (1964): Rate and timing of nitrogen dressing in the case of oil
linseed. Pamietnik pulawski Ins. Uprawy, Nawozenia
Gleboznostwa 8: 325-343.
(C.F. Biological Abst., 45(12): 531).
- Ingralson, R. D.; Rhoades, J. D. and Page, A.L.(1976).
Correlation of alfalfa yield with various index of salinity.
Soil Sci. Am. J. 122 (3).
- Jacobs, M.B. (1959): The chemical analysis of food and food products.
3rd. Ed. D. Van Nostrand Companys Inc. New york.
- Kaddah, M.T. Lehmen, W.F. and Robinson, F. E. (1973).
Tolerance of rice (*Oryza sativa* L.) to salt during boot, flowering
and grain-filling stages.
Agron. J. 65(5): 845-847.

- Khalil, M.; Anter, I; Bakati, H. and Kamel, E. (1978).
A study of the effect of salinity types on salt-tolerance of flax plant.
Agric. Res. Rev., Cairo, 56(4): 23-28.
- Khalil, R.K.A. (1990): Response of flax to plant density and soil moisture.
Ph. D. Thesis, Fac. Agric. Moshtohor, Zagazig Univ., Egypt.
- Kheir, N. F.; Harb, E.Z.; Moursi, H.A. and El-Gayar, S.H. (1991).
Effect of salinity and fertilization on flax plants (*Linum usitatissimum* L.) I. Growth, yield and technical properties of fibers.
Bull. Fac. of Agric., Univ. of Cairo, 42 (1) : 39-56.
- Korkor, S.; Tayel, M.Y. and Anter, A. (1976).
The effect of salinity on cotton yield and quality
Egypt J. Soil Sci., 14(2): 137-148.
- Kuznetsova, N.V. and Rykova, R.P. (1975).
Oil contents in seeds fiber flax cultivars.
Byulleten Vsesoyuznago Instituta Rosteniyevodstva in N.I. Vavilova No. 47, 40-42, Leningrad; USSR.
(C.F. Field Crop Abst. 28(7): 457)
- Levitt, J. (1980): Response of plants to environmental stresses.
Academic press, New York.
- Liefstingh, G. and Blink, G. (1972).
Seed rate and crop reliability in flax.
Profstation Voor de Akkerbouw, Wageningen, Netherlands.,
Bedrijf ontwikkeling, 3(1): 75-77.
(C.F. Field. Crop Abst., 26 (7): 3390).
- McHughen, A. (1987): Salt tolerance through increased vigor in a flax line (STS-11) selected for salt tolerance in vitro.
Theoretical and Applied Genetics, 74: 6, 727-732.

- Mengel, K. and Kirkby, E. A. (1979).
Principles of plant nutrition
Inter. Potash Inst., Berne, Switzerland.
- Mitkees, A.I.; Selim, M.H.; El-Tohami, S.E.F. and El-Abaseri, M.A. (1972).
Effect of soil salinity on flax crop.
Agric. Res. Rev. Cairo, 50(2): 46-60.
- Mokable, E.S.M. (1977): Studies on salinity tolerance of some rice varieties.
M.Sc. Thesis, Fac. Agric. Zagazig Univ., Egypt
- Mokhtar, R. (1965): New aspects cultivated flax.
Expansion Agric. J. 7 (6): 75-82.
- Momtaz, A.; El-Farouk and Shalaby, T.A. (1982).
Studies of plant density and nitrogen fertilizer level effects on yield
and quality of flax.
J. Agric. Res. , Tanta Univ. 7(1): 211-222.
- Naqvi, P.A. ; Rai, M. and Vasishtha, A.K. (1987).
Varietal correlations between different quality components in
linseed.
J. of the Oil Techniologists, Association of India, 19:3, 66-69
- Nasr El-Din, T. (1983): Effect of some cultural practices on growth and yield
of flax (*Linum usitatissimum* L.)
Ph. D. Thesis, Fac. of Agric. Kafr El-Sheikh, Tanta Univ., Egypt.
- Obeid, M.; Machine, D. and Harfer, J.L. (1967).
Influence of density on plant to plant variation fiber flax.
Crop Sci. 7: 471-473.

- Omar, A.M. and El-Ghamry, W.M. (1990).
Response of sunflower (*Helianthus annuus* L.) to soil salinity.
J.. Agric. Res. Tanta Univ., 16(4): 646-653.
- Peterson, H.B. (1971): Some effects on plants of salt and sodium four saline
arid sodic soils.
Canad. J. Soil Sci., 63(4): 163-166.
- Piper, C.S. (1942): Soil and plant analysis.
Interscience puble. P.L.N.C. New York.
- Popa, F. (1989): Experimental results on the sowing rate of oil seed flax on a
low to moderat saline soil.
Probleme de Agrofitotehnie-Teoretica si-Aplicata, 8(4): 345-348.
- Radwan, S.R and Momtaz, A. (1966).
The technological properties of flax fibers and methods of
estimating them.
El-Felaha J. 46(5): 466-476 (in Arabic).
- Refai, S. A. (1975): Anatomical and technological studies of some Egyptian
common flax varieties and their crosses.
M.Sc. Thesis Fac. Agric., Cairo Univ.
- Rowland, G.G.; McHughen, A. and Mconie, C. (1988).
Field evaluation on nonsaline soils of a somaclonal varient of
McGregor flax selected for salt tolerance in vitro.
Candian J. of Plant Sci, 68(2): 345-349.
- Rowland, G.G.; McHughen, A. and Mconie, C. (1989 a).
Field performance at saline-affected sites sites of a somaclonal
variant of McGregor flax selected for salt toerance in vitro.
Candian J. of Plant Sci. 69: 1, 49-60.

- Rowland, G.G.; McHughen, A. and Bhatti, R.S. (1989 b).
Andro flax.
Canadian J. of Plant Sci. 69: 3, 911-913.
- Salama, H.E.E. (1983): The effect of nitrogen fertilization and herbicide treatments on growth and technological properties of some flax varieties (*Linum usitatissimum* L.).
M.Sc. Thesis, Fac. Agric., Agric., Mansoura Univ., Egypt.
- Salama, H.E.E. (1988): Response of different flax varieties to population density and fertilization treatments.
Ph. D. Thesis, Fac. Agric., Moshtohor, Zagazig Univ., Egypt.
- Shalaby, A.A., Kishk, E. T.; Red, K.A. and Hegazi, A.M. (1983).
Response of wheat plant to lower saline conditions and benzimidazole application
The Desert Inst. Bull., ARE, 14: 56-85.
- Shehata, A.H. and Comstock, V.E. (1971).
Heterosis and combining ability in F₂ flax populations as influenced by plant density.
Crop Sci., II:534-536.
- Shehata, A.H. and Comstock, V.E. (1976).
Association among economic attributes of flax (*Linum usitatissimum* L.)
Egypt J. Genet. Cytol. 5(2): 450-455.
- Sin., G.; Pintilie, G.; Nicolae, H.; Sarpe, N.; Mihaila, V. and Zahran, R. (1975). Effect of some agronomic techniques on the yield of flax crop. *Produsotia Vegetala Cereale Si plante Tecnice*. 27(10): 7-13. (C.F. Field Crop Abst., 29, 8072, 1976.)
- Singh, K.N. (1980): Path analysis in linseed under sodic soil conditions.
Indian J. Genetic & plant Breeding 40(2): 385-387.

- Steel, R.G. and Torrie, J.H. (1960).
Principles and procedures of statistics.
McGraw: Hill Book Company, Inc. New York, (N.L.S.D.) London.
- Tihvinskij, S.F. (1968): Cultivars and anatomical structure of the stem.
Leni Konoplya (Flax & Hemp)(1): 35-37. (Russian).
(C.F. plant. Br. Abst. 38: 4836).
- Tihvinskij, S.F. and Balasova, R.I. (1969).
Characteristics of the anatomical structure of the stem of flax and its fiber quality.
Breeding & Seed Growing, 6: 59-60.
(C.F. Plant Br. Abst. 11, 2, 5571).
- Tikhomirova, V.Y. (1973): The physiological and biochemical characteristics of flax variety in relation to fiber content and some components of quality.
Tr. VN II. Ina, (11): 192-197.
(C.F. Plant Br. Abst, 46: 7305).
- Vasilica, C. (1979): Effect of sowing density on yield of fiber flax.
Agronomic-Horticulture, 41-43, Romania.
(C.F. Field Crop Abst., 32(2): 1139, 1979).
- Waller, R.A. and Duncan, D.B. (1969).
A base role for the symmetric multiple comparison problems.
Amer. Stat. Asso. J. December: 1485-1503.
- Wassif, M.M.; El-Bagouri, I.H.; Sabet, S.A. and Robieshy, A.A. (1983).
Effect of irrigation with saline water at different growth stages on yields and mineral composition of some cereal crops under the conditions of highly calcareous soils.
The Desert Inst. Bull., A.R.E., 14: 41-55.

- Zahran, M.; Abou-Khadrah, S.; Sorour, F.A. and Nesr El-Din, T. (1984).
Effect of row spacing and seeding rate on growth and yield of two
flax (*Linum usitalissimum* L.) cultivars.
The 2nd. General Conf. A.R.C., Giza, 9-11 April.
- Zeidan, S.Z.A. (1989): Response of some flax varieties to nitrogen under
different seeding rate.
M.Sc. Thesis, Fac. Agric., Al-Azhar. Univ., Egypt.
-