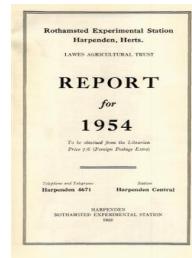


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Classified List of Publications

E. M. Crowther

E. M. Crowther (1955) *Classified List of Publications* ; Report For 1954, pp 195 - 201 - DOI:
<https://doi.org/10.23637/ERADOC-1-76>

CLASSIFIED LIST OF PUBLICATIONS

By

THE LATE E. M. CROWTHER

E. M. Crowther's work was scattered through a wide range of publications. The following list has been compiled to make it more accessible to workers in agricultural science.

SCIENTIFIC PAPERS

Soil Physics and Soil Chemistry

- CROWTHER, E. M. & PURI, A. N. (1924). The indirect measurement of the aqueous vapour pressure of capillary systems by the freezing point depression of benzene. *Proc. Roy. Soc., A*, **106**, 232–242.
- COUTTS, J. R. H., CROWTHER, E. M., KEEN, B. A. & ODEN, S. (1924). An automatic and continuous recording balance. (The Oden-Keen balance.) *Proc. Roy. Soc., A*, **106**, 33–51.
- CROWTHER, E. M. & COUTTS, J. R. H. (1924). A discontinuity in the dehydration of certain salt hydrates. *Proc. Roy. Soc., A*, **106**, 215–222.
- CROWTHER, E. M. & HAINES, W. B. (1924). An electrical method for the reduction of draught in ploughing. *J. agric. Sci.* **14**, 221–231 [also 1925, *Impl. Mach. Rev.* **50**, 1003–1005].
- PURI, A. N., CROWTHER, E. M. & KEEN, B. A. (1925). The relation between the vapour pressure and water content of soils. *J. agric. Sci.* **15**, 68–88.
- COUTTS, J. R. H. & CROWTHER, E. M. (1925). A source of error in the mechanical analysis of sediments by continuous weighing. *Trans. Faraday Soc.* **21**, 374–380.
- KEEN, B. A., CROWTHER, E. M. & COUTTS, J. R. H. (1926). The evaporation of water from soil. III. A critical study of the technique. *J. agric. Sci.* **16**, 105–122.
- CROWTHER, E. M. (1927). The direct determination of distribution curves of particle size in suspensions. *J. Soc. chem. Ind.* **46**, 105–107 T.
- CROWTHER, E. M. (1928). A manometric apparatus for the direct determination of summation percentage curves in mechanical analysis. *Proc. 1st. int. Congr. Soil Sci.*, Washington 1927, **1**, 394–398.
- CROWTHER, E. M. (1928). Nomographs for use in mechanical analysis calculations. *Proc. 1st. int. Congr. Soil Sci.*, Washington 1927, **1**, 399–404.
- CROWTHER, E. M. & BASU, J. K. (1929). Note on a simple two-compartment electrodialysis cell for the determination of exchangeable bases. *Trans. 2nd Comm. int. Soc. Soil Sci.*, Budapest, Part A, 100–102.
- SCOTT BLAIR, G. W. & CROWTHER, E. M. (1929). The flow of clay pastes through narrow tubes. *J. phys. Chem.* **33**, 321–330.
- CROWTHER, E. M. (1930). The relationship of climatic and geological factors to the composition of soil clay and the distribution of soil types. *Proc. Roy. Soc., B*, **107**, 1–30.
- CROWTHER, E. M. (1931). Soils and climate. *Agric. Met. Conf. Rep.* **1**, 5–11.
- CROWTHER, E. M. (1932). Climate, clay composition and soil type. *Proc. 2nd int. Congr. Soil Sci.*, Leningrad–Moscow 1930, **5**, 15–23.

- CROWTHER, E. M. & TROELL, E. (1932). Oxidation of organic matter in the pre-treatment of soils for mechanical analysis. *Proc. 2nd int. Congr. Soil Sci.*, Leningrad-Moscow 1930, Commission 1, 48-51, 253-255.
- CROWTHER, E. M. (1935). Some inductive methods in pedology. *Trans. 3rd int. Congr. Soil Sci.*, Oxford 1935, 1, 339-343.
- STEWART, R. & CROWTHER, E. M. (1934). Report of the analysis of Soils Sub-Committee. *Agric. Progr.* 11, 106-114.
- CROWTHER, E. M. (1935). First Report of the Organic Carbon Committee. *Trans. 3rd int. Congr. Soil Sci.*, Helsinki, 1, 114-127.
- CROWTHER, E. M. (1936). The soils of the Woburn plots. (Part IV in E. J. Russell and J. A. Voelcker, *Fifty years of agricultural experiments at the Woburn Experimental Station*, 315-345.)
- CROWTHER, E. M. (1936). Second Report of the Organic Carbon Committee. *Trans. 3rd int. Congr. Soil Sci.*, Oxford 1935, 3, 82-83.
- CROWTHER, E. M. (1936). Subsoil structure and crop nutrition. *Trans. 3rd int. Congr. Soil Sci.*, Oxford 1935, 3, 126-129.
- CROWTHER, E. M. (1938). The determination of silicon, iron and aluminium in soils. *Trans. Second Comm. & Alkali Sub-Comm. int. Soc. Soil Sci.*, Helsinki 1938, Vol. B, 97-100.
- CROWTHER, E. M. & STEWART, R. (1938). The separation and analysis of soil clay fractions. *Agric. Progr.* 16, 55-60.

Soil Reaction

- CROWTHER, E. M. (1922). Soil acidity in its physico-chemical aspects. (Contribution to a joint discussion on Physico-chemical problems relating to soil.) *Trans. Faraday Soc.* 17, 317-320.
- CROWTHER, E. M. & MARTIN, W. S. (1924). The volumetric estimation of total carbonic acid in dilute solutions of calcium hydrogen carbonate or in hard tap waters. *Trans. chem. Soc.* 125, 1937-1939.
- CROWTHER, E. M. (1925). The determination of lime requirements. *Agric. Progr.* 2, 72-76.
- ROACH, W. A., GLYNNE, M. D., BRIERLEY, W. B. & CROWTHER, E. M. (1925). Experiments on the control of wart disease of potatoes by soil treatment, with particular reference to the use of sulphur. *Ann. appl. Biol.* 12, 152-190.
- CROWTHER, E. M. (1925). Studies on soil reaction. III. The determination of the hydrogen ion concentration of soil suspensions by means of the hydrogen electrode. *J. agric. Sci.* 15, 201-221.
- CROWTHER, E. M. (1925). Studies on soil reaction. IV. The soil reaction of continuously manured plots at Rothamsted and Woburn. *J. agric. Sci.* 15, 222-231.
- CROWTHER, E. M. (1925). Studies on soil reaction. V. The depth distribution of reaction and flocculation in continuously manured soils. *J. agric. Sci.* 15, 232-236.
- CROWTHER, E. M. & MARTIN, W. S. (1925). Studies on soil reaction. VI. The interaction of acid soils, calcium carbonate and water, in relation to the determination of "lime requirements". *J. agric. Sci.* 15, 237-255.
- CROWTHER, E. M., GLYNNE, M. D. & ROACH, W. A. (1927). Sulphur treatment of soil and the control of wart disease of potatoes in pot experiments. *Ann. appl. Biol.* 14, 422-427.
- HEINTZE, S. G. & CROWTHER, E. M. (1929). An error in soil reaction determination by the quinhydrone method. *Trans. 2nd Comm. int. Soc. Soil Sci.*, Budapest, Part A, 102-111.
- CROWTHER, E. M. & BASU, J. K. (1931). Studies on soil reaction. VIII. The influence of fertilisers and lime on the replaceable bases of a light acid soil after fifty years of continuous cropping with barley and wheat. (An examination of the Stackyard Field plots, Woburn Experimental Station.) *J. agric. Sci.* 21, 689-715.

- CROWTHER, E. M. (1932). The loss of lime from light soils. An examination of the Woburn barley and wheat soils. *J. R. agric. Soc.* **93**, 199–214.
- CROWTHER, E. M. & HEINTZE, S. G. (1933). Oxides of manganese and the quinhydrone error in measurements of soil reaction. *Proc. 2nd int. Congr. Soil Sci.*, Leningrad–Moscow 1930, **2**, 1–6.
- CROWTHER, E. M. & BASU, J. K. (1933). The influence of fertilizers and lime on the exchangeable bases and soil reaction of a light acid soil after 50 years of continuous barley and wheat. *2nd int. Congr. Soil. Sci.*, Leningrad–Moscow 1930, **2**, 146–151.
- HISSINK, D. J., CROWTHER, E. M. & HEINTZE, S. G. (1935). Report of the Soil Reaction Committee on the investigation of the glass electrode method. *Trans. 3rd. int. Congr. Soil Sci.*, Oxford 1935, **1**, 127–132.
- CROWTHER, E. M. & WALKER, T. W. (1952). The relative values of alternative liming materials. *Agriculture, Lond.* **59**, 251–260.

Tropical Soils

- CROWTHER, E. M. (1925). The soils of tropical Africa. *Emp. Cott. Gr. Rev.* **2**, 35–39.
- CROWTHER, E. M. (1926). Some aspects of the Gezira soil problem (and analysis of the influence of rainfall on the yield of cotton at the Gezira Research Farm). Report of a meeting in the Sudan Gezira in December 1925 for the discussion of certain problems connected with cotton growing, published by the Sudan Government, 18–28.
- CROWTHER, E. M. (1928). Some physical properties of heavy alkaline soils under irrigation (in the Sudan Gezira). *Proc. 1st. int. Congr. Soil Sci.*, Washington 1927, **1**, 429–433.
- CROWTHER, E. M. (1934). Soil organic matter and crop rotation. Empire Cotton Growing Corp., 2nd Conference on Cotton Growing Problems, July 1934, 319–329.
- CROWTHER, E. M. & CROWTHER, F. (1935). Rainfall and cotton yields in the Sudan Gezira. *Proc. Roy. Soc., B*, **118**, 343–370.
- CROWTHER, E. M. (1936). Rainfall and cotton yields in the Sudan Gezira. *Emp. Cott. Gr. Rev.* **13**, 110–119.
- SAMPSON, H. C. & CROWTHER, E. M. (1943). Crop production and soil fertility problems. The West Africa Commission, 1938–39. Technical Reports, Leverhulme Trust, 8–58.
- CROWTHER, E. M. (1949). Soil fertility problems in tropical agriculture. *Tech. Commun. Bur. Soil Sci.*, **46**. III. Fertility Problems, 134–142.

Field Experimentation

- CROWTHER, E. M. (1936). The technique of modern field experiments. *J. R. agric. Soc.* **97**, 54–81.
- CROWTHER, E. M. (1947). The study of soil organic matter and organic manures by means of field experiments. *C.R. Conf. de Pédologie Méditerranéenne*, Montpellier and Algiers, 123–139.
- CROWTHER, E. M. (1947). Fertilizer experiments in colonial agriculture. Memoranda on colonial fertilizer experiments, 10–28. (H.M. Stationery Office, Colonial 214.)
- CROWTHER, E. M. (1949). The effects of plants and animals on soil fertility : A review of Rothamsted work. Specialist Conf. in Agriculture, Australia, 1949. Session D : Soil Fertility.
- CROWTHER, E. M. (1949). Field experiments as the basis for planning fertilizer practice. U.N. Sci. Conf. on the Conservation and Utilization of Resources. Experience paper prepared for Section Meetings : Land Resources 5(a), Improving Soil Productivity.

Fertilizers

- CROWTHER, E. M. (1931). The present position of the use of fertilizers. *J. R. agric. Soc.* **92**, 162–182.
- CROWTHER, E. M. & WARREN, R. G. (1931–9). Reports on field, pot and laboratory work. (Appendices to 9th to 16th Interim Reports of Permanent Committee on Basic Slag, Min. Agric., 1931–39.)
- CROWTHER, E. M. & RICHARDSON, H. L. (1932). Studies on calcium cyanamide. I. The decomposition of calcium cyanamide in the soil, and its effects on germination, nitrification and soil reaction. *J. agric. Sci.* **22**, 300–334.
- CROWTHER, E. M. (1934). Basic slags and mineral phosphates. *J. R. agric. Soc.* **95**, 34–53.
- CROWTHER, E. M. & WARREN, R. G. (1934). The fertilizer value of basic slags and other phosphates. *Agric. Progr.* **11**, 99–105.
- CROWTHER, E. M. (1935). Comparative trials on calcium cyanamide and other nitrogenous fertilizers on arable crops. *Emp. J. exp. Agric.* **3**, 129–143.
- RICHARDSON, H. L. & CROWTHER, E. M. (1935). Studies on calcium cyanamide. V. The utilisation of calcium cyanamide in pot culture experiments. *J. agric. Sci.* **25**, 132–150.
- CROWTHER, E. M. & MCARTHUR, D. N. (1935–9). Reports on field experiments in 1934 to 1937. (Appendices to 13th to 16th Interim Reports of the Permanent Committee on Basic Slag, 1935–1939.)
- CROWTHER, E. M. (1936). Report of fertilizer trials conducted at Rothamsted Experimental Station on ammonium sulphate and ammonium bicarbonate in 1933. (Inst. Gas Engineers, 6th Report of the Liquor Effluents and Ammonia Committee, 1936, Comm. 142, Append. 3, 27–36.)
- CROWTHER, E. M. (1945). Combine drilling of phosphate fertilizers for cereals. *Agriculture, Lond.* **52**, 170–173.
- CROWTHER, E. M. & LEA, F. M. (1946). Silicophosphate. *Agriculture, Lond.* **53**, 102–5.
- CROWTHER, E. M. (1949). Condition in fertilizers. *Proc. Fertil. Soc.* no. 5, 1–8.
- CROWTHER, E. M. (1950). The analysis of phosphate fertilizers. *Chem. & Ind.* pp. 763–766.
- CROWTHER, E. M. & COOKE, G. W. (1951). The production and agricultural value of silicophosphate fertilizers. Part VI. Field experiments. Min. Supply Perm. Record Res. and Dev. no. 11, 108, 210–283.
- CROWTHER, E. M., WARREN, R. G., NAGELSCHMIDT, G. & COOKE, E. H. (1951). The production and agricultural value of silicophosphate fertilizers. Part V. Laboratory and pot culture investigations. Min. Supply Perm. Records Res. and Dev. no. 11, 108, 146–209.
- CROWTHER, E. M., WARREN, R. G. & COOKE, G. W. (1953). The agricultural value of alternative phosphate fertilizers (other than silicophosphate). Part II. Min. Supply Perm. Record Res. and Dev. no. 11, 109, 2.1–2.113.
- CROWTHER, E. M. (1954). The production and use of fertilizers: Some current trends and problems. Jubilee memorial lectures. *Chem. & Ind.* no. 46 (13 Nov.), 1400–1415.

Manures

- CROWTHER, E. M. (1925). Further experiments on the effect of removing the soluble humus from a soil on its productiveness. *J. agric. Sci.* **15**, 303–306.
- CROWTHER, E. M. (1925). A note on the availability of organic nitrogen compounds in pot experiments. *J. agric. Sci.* **15**, 300–302.
- CROWTHER, E. M. & MIRCHANDANI, T. J. (1931). Winter leaching and the manurial value of green manures and crop residues for winter wheat. *J. agric. Sci.* **21**, 493–525.

- CROWTHER, E. M. & MANN, H. H. (1933). Green manuring and sheep-folding on light land. *J. R. agric. Soc.* **94**, 128-151.
- CROWTHER, E. M. & BRENCLEY, W. E. (1934). The fertilizing value and nitrifiability of humic materials prepared from coal. *J. agric. Sci.* **24**, 156-176.
- CROWTHER, E. M. & BUNTING, A. H. (1942). The manurial value of sewage sludges. (Annual Summer Meeting July 9th and 10th, 1942.) *J. Inst. Sew. Purif.* 13-25.
- CROWTHER, E. M. & BUNTING, A. H. (1944). The manurial value of sewage sludges (Part 2). (Presented at Annual General Meeting, Midland Inst., Birmingham, 6th and 7th December, 1944.) *J. Inst. Sew. Purif.* 46-52.
- CROWTHER, E. M. (1943). Composts: Their preparation and value. *Ann. appl. Biol.* **30**, 392-395.
- CROWTHER, E. M. (1945). Unexhausted manurial values: Some aspects needing revision. Report First Ord. Meeting, Central Association Agricultural Valuers, 11-18.
- CROWTHER, E. M. (1946). The 1946 Report on Residual Manurial Values. (Lecture published in Report Second Ordinary Meeting, Central Association Agric. Valuers, 22-29.)
- CROWTHER, E. M. (1946). 1946 tables and examples of residual manurial values of fertilizers and the manurial values of feeding stuffs. Published privately by Central Association of Agricultural Valuers, London, September 1946.
- CROWTHER, E. M. (1946). The residual manurial values of fertilizers and feeding stuffs. *J. R. agric. Soc.* **107**, 107-121.
- BOYD, D. A., CROWTHER, E. M., MOFFATT, J. R. & YATES, F. (1949). The residual manurial value of feeding stuffs consumed on grass. *J. R. agric. Soc.* **110**, 104-114.

Fertilizer Practice

- CROWTHER, E. M. & YATES, F. (1941). Fertilizer policy in war-time: The fertilizer requirements of arable crops. *Emp. J. exp. Agric.* **9**, 77-97.
- CROWTHER, E. M. (1942). Fertilizer policy on the farm. *Agriculture, Lond.* **49**, 68-79.
- CROWTHER, E. M. (1942). Manuring under a fertilizer rationing scheme. *J. R. agric. Soc.* **103**, 150-160.
- CROWTHER, E. M. (1943). The maintenance of soil fertility. *J. R. Soc. Arts*, **91**, 431-437. [Reptd. in *Amer. Fertil.* **99**, no. 12; and in *Agriculture: today and tomorrow*, edited by Sir John Russell; and, in abridged form, in *Agriculture, Lond.* **50**, 262-264.]
- CROWTHER, E. M. (1945). Fertilizers during the war and after. *Pamphl. Bath W.S. Co. Soc.* no. 13; (2 ed., 1948).
- CROWTHER, E. M. (contributor). (1949). Efficient use of fertilizers. Edited by V. Ignatieff. *Agric. Stud. F.A.O.* no. 9; 183 pp.
- CROWTHER, E. M. (1952). American fertilizer practice and problems. *Proc. Fertil. Soc.* no. 17.

Manuring of Crops

- CROWTHER, E. M. (1930). Note on the phosphoric acid of barley grain. *J. Inst. Brew.* **36**, (27 New Series) 349-351.
- CROWTHER, E. M. & WEIL, J. W. (1939). Report on the analyses of barleys valued for the Rothamsted Barley Conferences of 1935, 1936 and 1937. *J. Inst. Brew.* **45**, (36 New Series) 579-584.
- CROWTHER, E. M. & GARNER, H. V. (1940). Potash and potash substitutes for sugar beet. *Brit. Sug. Beet Rev.* **13**, 248-250.
- HAINES, W. B. & CROWTHER, E. M. (1940). Manuring Hevea III. Results on young buddings in British Malaya. *Emp. J. exp. Agric.* **8**, 169-184.
- CROWTHER, E. M. (1947). The use of salt for sugar beet. *Brit. Sug. Beet Rev.* **16**, 19-22.

- CROWTHER, E. M. (1948). The manuring of potatoes. *J. R. agric. Soc.* **109**, 114–117.
CROWTHER, E. M. (1949). The effect of potassium and sodium fertilizers on the yield and composition of sugar beet. *12th Congr. Inst. int. Rech. Betteravières*, Annexe III.
CROWTHER, E. M. & GARNER, H. V. (1950). Nitrogen fertilizers for sugar beet. *Brit. Sug. Beet Rev.* **18**, 101–105.
CROWTHER, E. M., REYNOLDS, J. D. & SHORROCK, R. W. (1952). Experiments on the manuring of peas. *Agriculture, Lond.* **58**, no. 12, 584–588.

Nutrition Problems in Forest Nurseries

- CROWTHER, E. M. (1950). Review of work on nutritional problems in forest nurseries. *Rep. Rothamst. exp. Sta. for 1949*, 122–129.
CROWTHER, E. M. (1950). Committee on Nutrition Problems in Forest Nurseries. Summary report on 1948 experiments. *Rep. For. Res. Lond. for 1948–9*, 60–64.
CROWTHER, E. M. (1951). Committee on Nutrition Problems in Forest Nurseries. Summary report on 1949 experiments. *Rep. For. Res. Lond. for 1949–50*, 97–105.
CROWTHER, E. M. & BENZIAN, B. (1952). Sub-Committee on Nutrition Problems in Forest Nurseries. Summary report on 1950 experiments. *Rep. For. Res. Lond. for 1950–51*, 113–122.
CROWTHER, E. M. & BENZIAN, B. (1953). Sub-Committee on Nutrition Problems in Forest Nurseries. Summary report on 1951 experiments. *Rep. For. Res. Lond. for 1951–52*, 94–107.
CROWTHER, E. M., WARREN, R. G. & BENZIAN, B. (1954). Nutrition problems in forest nurseries. Summary report for 1952. *Rep. For. Res. Lond. for 1952–53*, 84–100.

General Papers in Agricultural Science

- CROWTHER, E. M. (1951). Experimental agriculture. British Association: Edinburgh Meeting, Presidential Address (Section M). *Advanc. Sci.* no. 30, 236–248.
CROWTHER, E. M. (1953). The evaluation of soil fertility. *Trans. int. Soc. Soil Sci.*, Dublin, July 1952, *Comm. II & IV*, **2**, 14–21.
CROWTHER, E. M. (1953). The sceptical soil chemist. *J. Soil Sci.* **4**, 107–122.

ABSTRACTS

- CROWTHER, E. M. (1930). Influence of fertilizer on the yield and composition of potatoes. *Rep. Brit. Ass.* 420.
CROWTHER, E. M. (1938). The maintenance of soil fertility. *Rep. Brit. Ass.* 519.
CROWTHER, E. M. (1949). The analysis of phosphate fertilizers. *Chem. & Ind.* no. 27, 808–9. Summary.
CROWTHER, E. M. (1950). Chemicals and crop growth. *Advanc. Sci.* **7**, no. 25, 37–38.
CROWTHER, E. M. (1951). Experimental agriculture. Summary of E. M. Crowther's address, B.A. Meeting 1951. *Nature, Lond.* **168**, 232.

REVIEW PAPERS

- CROWTHER, E. M. (1927–1937). Soils and fertilizers. *Rep. Prog. appl. Chem.*
- | | |
|----------------------------|----------------------------|
| (1927) 12 , 454–488 | (1934) 19 , 542–577 |
| (1928) 13 , 469–506 | (1935) 20 , 536–573 |
| (1929) 14 , 511–559 | (1936) 21 , 562–588 |
| (1930) 15 , 449–489 | (1937) 22 , 573–603 |
| (1931) 16 , 479–515 | (mostly published |
| (1932) 17 , 447–477 | in Russian trans- |
| (1933) 18 , 519–552 | lation also). |

- CROWTHER, E. M. (1935). The chemistry of soils and fertilizers. *Rep. Rothamst. exp. Sta. for 1934*, 48–56.
- CROWTHER, E. M. (1935). Agricultural chemistry, 1910–1935. *Chem. & Ind.* **13** (The King's Jubilee issue), 422–425.
- CROWTHER, E. M. (1945–49). Soils and fertilizers. *J. R. agric. Soc.* (1945) **106**, 61–74
(1946) **107**, 71–85
(1947) **108**, 69–81
(1948) **109**, 71–82
(1949) **110**, 135–148
- CROWTHER, E. M. (1945). Agrochemistry. *Nature, Lond.* **156**, 227.

GENERAL ARTICLES

- CROWTHER, E. M. (1928). The determination of hydrogen-ion concentration. *Chem. Yearb.* 610–629.
- CROWTHER, E. M. (1935). The manuring of sugar beet. *Brit. Sug. Beet Rev.* **9**, 71–73 and 105–6.
- CROWTHER, E. M. (1936). Soil analysis and manuring. *Sug. Beet Annu.* 33–43.
- CROWTHER, E. M., OGG, W. G. *et al.* (1936). The soils of Britain and their classification. *Geography*, **21**, 264–267.
- CROWTHER, E. M. (1942). Straw on the land. *Agriculture, Lond.* **49**, 146–150.
- CROWTHER, E. M. (1948). Fertilizer practice, 1939–1948. *J. Inst. Corn Merch.* **1**, 143–148.
- CROWTHER, E. M. (1948). Fertilizers in the agricultural expansion programme. *Agriculture, Lond.* **54**, 491–500.
- CROWTHER, E. M. (1948–1950). Fertilizers. *Encyclopaedia Britannica book of the year* 1948, 1949, 1950.