

Thank you for using eradoc, a platform to publish electronic copies of the Rothamsted Documents. Your requested document has been scanned from original documents. If you find this document is not readable, or you suspect there are some problems, please let us know and we will correct that.



Rothamsted Experimental Station Report for 1974 Part 2



[Full Table of Content](#)

Subject Index

Rothamsted Research

Rothamsted Research (1975) *Subject Index* ; Rothamsted Experimental Station Report For 1974 Part 2, pp 231 - 233 - DOI: <https://doi.org/10.23637/ERADOC-1-9>

SUBJECT INDEX

- Aminotriazole, 157, 159
- Ammonium sulphate
 - effect on losses of carbon from soil, 65
 - effect on soil acidity, 51
 - effect on soil fauna, 141
- Amphill clay at Woburn, 10, 13–16, 21, 27
- Barley
 - effect of herbicides on, 156, 162, 163
 - fertiliser for, 162
 - fungus, disease of, 190
 - in Continuous Wheat and Barley experiment, 35–39
 - in Cultivation Weedkiller experiment, 162
 - short and tall varieties, 190
 - yields, 35–39, 163, 187–190
- Beans
 - aminotriazole as stubble spray, 157
 - effect of dinoseb acetate on, 158
 - effect of organic manures on, 95
 - effect of season and site on yields, 96
 - fertiliser for, 158
 - simazine for, 157, 158, 160
 - yields, 94, 157, 158, 159, 163
- Beet (red)
 - fungicide seed dressing for, 93
 - in Woburn Market Garden experiment, 82–93
- BHC/organo-mercury, as seed dressing for red beet, 93
- Broadbalk
 - comparison with Continuous Wheat and Barley experiments at Woburn, 69
- Carbon in Woburn soils
 - amount retained in soil, 111
 - changes in, 61, 65, 77, 109
 - effect of continuous cereals on, 68
 - effect of organic manures on, 61, 107–115
 - effect of ploughing on, 64
 - effect of rotations on, 68
 - ICI measurements of, 166
 - measurement of, 70, 73–76, 130, 165
 - methods of analysis, 106, 130
 - variability of, 70
- Carbon/Nitrogen ratios in soils, 107
- Cereals
 - amount of soil P and K removed by, 39
 - Continuous Wheat and Barley experiments, 5, 29–60
 - Continuous Wheat experiment, 69, 71
 - effect of liming on yields, 47
 - effect on C content of soils, 68
 - herbicides on, 156, 162
 - Intensive Cereals experiment, 52
- Chalk
 - effect on soil acidity, 48, 104
 - losses from soils, 52, 105
 - use of a 'field factor' for dressings, 49
- Chalky boulder clay, 9, 13–24
- Chlormequat chloride (CCC), for control of lodging in wheat, 190
- Coal and charcoal in Woburn soils, 62
- Composts
 - analysis of, 82
 - C/N ratios in, 108
 - effect on P and K in soils, 116, 121
 - effect on soil acidity, 105
 - sludge compost, 81–89, 95, 100, 105, 108, 116
 - used in Woburn Market Garden experiment, 79, 81
 - vegetable wastes used as, 79, 81
- Continuous Wheat and Barley experiments, 5, 29–77
 - comparison with experiments on Broadbalk, 69, 71
 - manorial history of, 32
 - organic-matter content of soil, 80
 - P content of soil, 80
 - soil acidity, 45, 47, 49, 51, 105
 - soil-sampling method, 45
- Continuous Wheat experiment on Broadbalk, 69, 71
- Couch grass (*Agropyron repens*), 157, 159
- Cultivation Weedkiller experiment, 155–170
- Dinoseb acetate, as weedkiller, 158, 160
- Drainage water, loss of nutrients in, 193
- Earthworms
 - correlation with fertilisers applied to soil, 139
 - effect of cultivation on, 167
 - effect of N fertiliser on, 142
 - effect of soil acidity on, 145, 147
 - methods of sampling, 134
 - numbers and weights of, in Park Grass, 139
 - relationships with plant species, 151
- Ethirimol as fungicide, 190
- Farmyard manure
 - analysis of, 82
 - C, N, P and K applied to soil in, 33
 - C/N ratios in, 108
 - comparison with NPK fertiliser, 88, 93
 - effect of applying NPK fertiliser with, 90
 - effect of residues on cereal yields, 39
 - effect on organic P in soils, 61, 66
 - effect on P and K in soil, 116, 121–128
 - effect on soil acidity, 51, 105
 - in Saxmundham Rotation experiments, 188
 - in Woburn Market Garden experiment, 79, 81
 - recoveries of C, N and organic P from, 67
 - use of, in England and Wales, 195
- Fertilisers
 - comparison with farmyard manure, 88, 93
 - effect of ploughing-in on crop yields, 93
 - effects on soil C, N and organic P, 61
 - effects on soil organic matter, 71
 - use of, in England and Wales, 195
- Fertility gradients, on Woburn Experimental Farm, 5
- Formalin, as soil sterilant for barley, 190
- Fuller's earth, used on Woburn Experimental Farm, 9
- Fungicide, effect on barley yield, 191
- Glaucanite, on Woburn farm, 9
- Green Manuring experiment, Woburn, 5, 80
- Head deposit at Woburn, 11, 13, 14
- Herbage crops, 191, 192
- Herbicides
 - aminotriazole, 157, 159
 - dinoseb acetate, 158
 - for beans, 157–160
 - for cereals, 156, 157, 159, 160, 163
 - for potatoes, 161
 - linuron + paraquat, 161
 - paraquat, 156, 161, 164
 - residual effect of, 160
 - simazine, 157, 158, 160
- Insect Survey
 - Aphid Bulletins, 201
 - insects in light traps, 201, 218–229
 - insects in suction traps, 201, 202–217
- Intensive Cereals experiment at Woburn, 52
- Intensive Wheat experiment at Saxmundham, 187
- Lime
 - applied to Park Grass, 145
 - early history of liming tests at Woburn, 34, 45

SUBJECT INDEX

- Lime (contd.)
 effect on cereal yields, 47
 effect on soil acidity, 47, 104
 use of a 'field factor' for dressings, 49
 Linuron, with paraquat for potatoes, 161, 162
 Loess, in Woburn soils, 16
 Long-Term Liming experiment at Woburn, 105
 Long-Term Phosphate experiment at Woburn, 52
 Lower Greensand at Woburn, 5, 8–24
- Magnesium, amounts applied at Woburn, 33, 93
 Market Garden experiment at Woburn
 crop yields, 85–90
 cropping, rotations and manures used, 82, 98–101
 effect of chalk on soils, 52, 104, 105
 effect of NPK fertilisers on yields, 87, 90, 92, 100
 history of, 79–85
 K content of soils, 115, 117
 magnesium applied to soils, 33, 93
 mechanical analysis of soils, 102, 131
 organic manures tested in, 79–90
 P content of soils, 80, 115, 117
 soil acidity, 102, 104
 soils of, 80
 Mechanical analysis of soils, 102, 131
 Moths, caught in Insect Survey, 218–229
- Nematodes, effect of soil pH on, 145
 Nitrogen fertiliser
 amounts retained in soil, 111
 effect on cereal yields, 38
 effect on crop yields in Market Garden experiment, 87
 effect on herbage crops, 191
 in Saxmundham Rotation experiments, 188
 use of, in England and Wales, 195, 196, 197
 Nitrogen in Woburn soils
 C/N ratios in, 107
 changes in, 61, 106, 109
 comparison with Broadbalk, 68
 effect of organic manures on, 61, 107–115
 losses by erosion, 70
 measurement of, 74–76, 130
- Organic manures
 analyses of, 82
 C/N ratios of, 108
 effect on bean yields, 95
 effect on Mg fertilisers, 93
 effect on N and C in soils, 61, 107–115
 effect on P and K in soils, 116–127
 effect on soil acidity, 51, 105
 effect on soil fauna, 141
 organic matter added by, 107
 used in Market Garden experiment, 79–101
 Organic Manuring experiment at Woburn, 70, 80
- Paraquat, for cereal stubble, 156, 164
 Park Grass Plots
 history of, 133
 invertebrate fauna of, 133, 134
 lime applications to, 145
 N fertiliser applied to, 141
 plant species numbers, 135, 138
 soil acidity, 133, 135, 145
 soil fauna, 136, 138, 139, 146, 153
 yields, 135
 Particle-size distribution, in Woburn soils, 14, 16
 Peat, effect on bean yield, 95
 Penetrometer, for measuring soil compaction, 164
 Phosphorus fertilisers
 accumulation of, in soil, 188
 amount removed by cereal crops, 39
 effect of residues on cereal crops, 39
 effect on herbage crops, 192
 effect on organic P in soil, 66
 in Saxmundham Rotation experiments, 188
 Long-Term Phosphate experiment, 52
 P in soil and, 118, 119
 use of, in England and Wales, 195, 196, 198
- Phosphorus in soil
 amount removed by cereal crops, 39
 decrease in Saxmundham soils, 189
 effect of acidity on soluble P, 55
 effect of applied P on P residues, 53
 effect of organic manures on, 61, 66, 116–128
 ICI measurements of, 166
 methods of analysis, 54, 59, 74–76, 115, 121, 130, 165
 mineralisation of, 66, 71
 movement into subsoil, 124
 organic P in Woburn soils, 65, 71
 P fertilisers and, 54, 66, 118, 119
 solubility of P residues, 55, 121
 total and soluble in soil, 118, 120, 122, 126
 Plough pan, in Woburn soils, 23
 Ploughing, effect on carbon and phosphorus content of soils, 64
 Potassium fertilisers
 amount removed by cereal crops, 39
 effect of residues on cereal crops, 39
 effect on herbage crops, 192
 effect on K residues in soil, 56
 effect on yields in Market Garden experiment, 90, 93
 in Saxmundham Rotation experiments, 188
 K in soil and, 119
 use of, in England and Wales, 195, 196, 199
 Potassium in soils
 amount removed by cereal crops, 39
 effect of K fertiliser on residues in soil, 56
 effect of organic manures on, 116–128
 ICI measurements of, 166
 K fertiliser applied and, 118, 119
 methods of analysis, 59, 115, 123, 130, 165
 movement into subsoil, 124
 Potatoes
 cultivation on, 160
 effect of superphosphate on, 189
 fertilisers for, 160
 linuron + paraquat for, 161, 162
 yields at Saxmundham, 188, 189
 yields in Cultivation Weedkiller experiment, 161, 163
- Rape cake, composition of, 34
 Rotation experiments at Saxmundham, 187
 Rotation experiments at Woburn, 41, 68
 Rotations
 effect on carbon content of soils, 68
 in Cultivation Weedkiller experiment, 155
 in Market Garden experiment, 82
 Rothamsted Insect Survey, 201–229
 Aphid Bulletins, 201
 insects in light traps, 201, 218–229
 insects in suction traps, 201, 202–217
- Saxmundham Experimental Station
 drainage of soils at, 191, 193
 herbage crops, experiments on, 191
 history of Classical experiments, 187
 Intensive Wheat experiment at, 187
 permeability of soil, 193
 Rotation experiments at, 187–190
 soil structure at, 191
 soils compared with Rothamsted, 191
 sugar-beet yields at, 188–189
 wheat yields at, 187, 189
 Sewage sludge
 analysis of, 82
 C/N ratios in, 108
 effect on P and K in soil, 116, 121
 effect on soil acidity, 105
 in Market Garden experiment, 79, 81
 sludge compost, 81–89, 95, 100, 105, 108, 116
 zinc accumulation in soils caused by, 79, 85
 Simazine, 157, 158, 160, 165
 Sludge. *See* Sewage sludge
 Sodium, amounts applied at Woburn, 33
 Sodium nitrate
 effect on losses of carbon from soil, 65
 effect on soil acidity, 51

SUBJECT INDEX

- Soil acidity
 - changes at Woburn since 1876, 49, 51
 - early history of measurement, 45, 54, 59, 60
 - effect of ammonium sulphate on, 51
 - effect of composts on, 105
 - effect of liming on, 47, 104
 - effect of organic manures on, 51, 105
 - effect of sodium nitrate on, 51
 - effect on soil fauna, 145, 147, 150, 153
 - effect on soluble P in soil, 55
 - in Market Garden experiment, 102, 104
 - in well-drained soils at Woburn, 13
 - methods of analysis of pH, 60, 130
 - of Park Grass Plots, 133, 135, 145
 - of unmanured soils, 49
- Soil compaction, measurement of, 164
- Soil erosion
 - at Woburn, 11, 23, 71
 - effect on loss of N from soil, 70
- Soil fauna
 - correlation with hay yield, 136
 - correlation with soil composition, 137
 - effect of N fertiliser on, 141, 153
 - effect of organic manures on, 141
 - effect of soil acidity on, 145, 147, 153
 - effect on flora, 146
 - methods of extraction from soil, 134
 - of Park Grass, 133, 152
- Soil morphology, at Woburn, 11
- Soil organic matter
 - calculation of, 130
 - effect of fertilisers on, 71
 - in Woburn Market Garden experiment, 80
 - organic manures and, 107
 - rates of build-up of, 108
- Soil sampling methods in Continuous Wheat and Barley experiment, 45
- Soil structure
 - at Saxmundham Experimental Station, 191
 - effect of mechanical cultivation on, 191
 - effect of leys on, 191, 192
 - 'Krilium', effect on, 191
- Soil, weight of, 102
- Stackyard field, Woburn
 - comparison with Broadbalk of N losses from soil, 69, 71
 - Continuous Wheat and Barley experiment on, 29-77
 - experiments on, 15, 29-77, 102
 - history of, 29
- Intensive Cereals experiment on, 52
- Long-Term Phosphate experiment on, 52
- soil types, 29
- Straw, used in composts, 79
- Sugar beet
 - acreage and distribution of, 181
 - 'Damage Index' for pests, 172
 - effect of P fertiliser on, 189
 - fluctuations in crop damage, 181
 - pest damage to, 171-185
 - yields at Saxmundham, 188, 189
- Water infiltration, in Cultivation Weedkiller experiment, 165
- Weeds, in Cultivation Weedkiller experiment, 155, 156, 157, 158, 159
- Wheat
 - couchgrass in, 157, 159
 - cultivation on, 158
 - effect of weather on yield, 190
 - eyespot in continuous wheat, 189
 - fertilisers for, 159
 - herbicides for, 157, 159, 160
 - in Continuous Wheat and Barley experiment, 35-39
 - in Cultivation Weedkiller experiment, 158, 160, 161, 163
 - lodging, chlormequat chloride to control, 190
 - take-all in continuous wheat, 189
 - yields, 35-39, 187, 189
- Wireworms
 - effect of soil acidity on, 150
 - grass yield and, 141
- Woburn Experimental Farm
 - Amphill clay on, 8, 9, 10, 14, 15, 16, 21
 - Continuous Wheat and Barley experiments on, 5, 29-77
 - drainage on, 11-14
 - history of, 5
 - loess on, 16, 23
 - Long-Term Phosphate experiment on, 52
 - Market Garden experiment on, 79-101
 - mineralogy of soils, 16-22
 - morphology of soils, 11
 - plough pan in soils, 23
 - soil erosion on, 11
 - soils of, 5-28
 - Stackyard field experiments, 29-77
 - weathering of soils, 11, 22, 24
- Zinc, contamination in soils, 79, 85