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superior to the resources of the N.1., which enable the people of Egypt not only to feed unnumbered millions at home, but to export at Rome and other cities in Europe and Asia, for thousands of years. an incalculable amount of breadstuffs. It is a profound and most interesting study to learn the best process for transforming Earth, Air, and Water, into bread, milk, meat, wool and flax. It is the earth, aided by air and water, light, heat, and electricity, that furnishes all manures, whether regetable, animal, or mineral. Hence it is that man ploughes the earth, harrows and cultivates it in a thousand forms, to favour the organization of useful plants. But he f-ils to plough and mellow the soil deep enough to command the full advantage of its mineral elements. The plough passes over too much surface in a day, and only half so deep as is necessary to give the roots of plants a fair chance to expand, and draw nourishment from a considerable depth in the earth. We have recently taken up roots of common white beans, grown on a deep sandy loam, which extends two feet each way from the stem, and penetrated 18 inches into the soil. By plucing the stem of a plant in the centre of a square whose sides are distant 2 feet from it, the are I will be 16 feet, or 4 on all sides; and if we include a depth of 18 inches, the solid contents will b- 24 cubic feet of soil to yield food to the growing plants. Now, limit the extention of the roots of the plant to one foot in all directions, to the depth of 9 inches, and you will have a surface of only 4 square fee', containing just one-eight part of 24 cubit feet .- Every body knows that a hard, impervious soil is fatal to the growth of b untiful crons. Plough, then, a narrow furrow, move all the earth Cown eight inches, and let a sub-soil plough follow in the same tracks, to break up and pulverize the compact earth six or eight inches deeper. This will enable the oxygen and carbonic acid in the atmosphere, and other meteoric elements, to decompose the before insoluble si icates and phosphrites of potash, soda, and lime ; and permit the thirsty roots of starving plants to go down and drink in the nourishment which they most need. In this operation the sub-soil is not brought to the surface. but only broken up, and made friable and pervious to water, air, and roots, in all respects like the surface-soil.

wheat in soils where such elements are lacking ? the growth of the inter, no one thing is so valuably

To show, in the first place, what one acre of land der in strong lye. To this the addition of gyram can do, where Science had supplied it with each and common salt will be of great service.

element used by nature in farming this invaluable plants, so far as such elements were lacking in the soil, we ask the reader's attention to the following facts :

In part VIII. vol. 2, p. 206, Mr. Colman says "It is well attested that a crop of wheat grown is Norfolk county in the same year (1845) preduced 11 quarters, 2 bushels, 3 pecks per acre, that is t say, 90 bushels, 3 pecks per acre." The evidence of the truth of this statement being satisfactory t the Royal Agricultural Society, its Council d rected Prof. Playfair to make a critical analysis ( the soil that produced this remarkable crop. H did so, with the following result :--

Organic matter	243
Hydrate water	2 60
Carbonic acid	0 92
Silien,	81.26
Per oxide of Iron	341
Lime,	1 28
Alumína,	3(8
Sulphuric acid,	0.09
Phosphoric acid,	0.38
Magnesia,	1 12
Potash,	1 80
Soda,	1 50
Chlorine,	a trace
Loss on analysis,	0.63

In so small an amount as 100 grains, this so shows an appreciable quantity of each elemen (14 in number,) found in perfect wheat plant And yet, more than four-fifths of the soil is nothing but silica, and pure flint sand. The propertion silica is about the same as we find in our be wheat soils in Wheatland, It differs from them containing more soda, potash, and phasphar acid; while the amount of lime, magnesia, alumin oxide of iron, and chlorine, correspond very exact with the results of our own avalysis. We have however, never so small an amount of organic ma ter (vegetalle mould) as 23 per cent. The fac that over 90 bushels of wheat can be grown on a acre with so little organic matter in the surface soil as 2, 43 per cent. is worthy of mature cousid cration by those that desire to prepare their lat for producing large crops of wheat at the least en pense. It is not regetable, but mineral matte that our soils lack to give a large yield of plum wheat. An abundance of mould will increase th How can one best sacrease the elements of growth of straw, but not of grain. To promet This is a question of great practical moment. Ins a general rule, esthat of bones boiled to a pow Th