SOIL IV.—CORAL.			SOIL V.—CHALK.		
Completely soluble in dilute acetic acid. (1 to 4.)	Hygroscopic water.	0·316	Completely soluble in dilute acetic acid. (1 to 4.)	Hygroscopic water.	18·134
	Organic substance.	3·806		Organic substance.	3·961
	Sand.....	0·050		Sand.....	0·040
	Sesquioxide of iron / Alumina.....	0·520		Sesquioxide of iron / Alumina.....	1·080
	Lime.....	52·470		Lime.....	43·355
	Magnesia.....	1·686		Magnesia.....	0·638
	Potash.....	0·064		Potash.....	0·074
	Soda.....	0·243		Soda.....	0·059
	Carbonic acid....	42·866		Carbonic acid....	35·912
	Sulphuric acid....	0·206		Sulphuric acid....	Trace
	Chlorine.....	0·020		Chlorine.....	0·010
	Phosphoric acid (est. in nitric acid solution)..	0·077		Phosphoric acid (est. in nitric acid solution)..	0·105
		102·324			102·478

EXHAUSTED AND FERTILE SOILS.

Analyses of Soil from Plot 3 and Plot 2 of the Experimental Farm of Lawes and Gilbert, at Rothamsted. By Herman and Liebig.

PLOT 3.—An exhausted soil, having grown wheat thirty successive years without manure, corn and straw being carried off. (The permanently unmanured plot.)

PLOT 2.—A fertile soil. This has also grown wheat thirty successive years. The corn and straw have been carted off, and it has been highly manured each year with farm-yard manure.

SURFACE SOIL (Top nine inches).		PLOT 3.	PLOT 2.
	Constituents Estimated.	Exhausted Soil Per Cent.	Fertile Soil Per Cent.
Soluble in dilute acetic acid.	Hygroscopic water.....	1·825	1·810
	Organic substance.....	5·363	6·212
	Silicic acid.....	0·065	0·084
	Oxide of iron and alumina.....	0·100	0·116
	Lime.....	2·065	1·785
	Magnesia.....	0·028	0·025
	Potash.....	0·015	0·041
	Soda.....	0·012	0·019
	Sulphuric acid.....	Traces	0·008
	Phosphoric acid (in nitric acid).....	0·075	0·093
Soluble in dilute hydrochloric acid after the solution in acetic acid.	Silicic acid.....	0·369	....
	Oxide of iron and alumina.....	4·363	....
	Lime.....	0·233	....
	Magnesia.....	0·064	....
	Potash.....	0·070	....
	Soda.....	0·054	....
	Sulphuric acid.....	0·015	....