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## Effect of Guano in the Soil at Various Depths.

Some very interesting experiments, having important practical applications, have recently been made in Belgium, with this valuable fertilizer; and which go to show that guano is more efficacious when put into the soil to the depth of two or four inches, than when merely mixed with the surface as is commonly the practice. I remember seeing last year on a farm in the western section of Upper Canada, a large field of corn manured with Guano; in one portion the manure had been deeply incorporated with the soil; in the other it had been merely scratched in with a light harrow on the surface. In other respects the management was the same, and the turnips were decidedly better in that part of the field where the manure had been more roughly and deeply intermixed with the soil. It is now well known that it is dangerous to mix guano and the seed together, as the vitality of the latter becomes endangered by actual

contact. In Germany it is usual to deposit guano, on the surface, to a depth of two to three inches deep; and it is not by this practice that the efficacy of the manure is always real and important. On the contrary, when spread on the surface it is found to produce comparatively little benefit. The Agricultural Society of Prague has instituted some carefully conducted experiments, which it is inferred that guano should be

worked in three or four inches deep. This method is best when the manure decomposes in the soil without the assistance of the atmosphere, but not with stable manure, bone-dust, &c. The more easily decomposed manure, such as the nitrates of potash and soda, must not be buried too deep, or they will be rapidly carried into the subsoil by rains, or into under-drains where they are formed, and thus a large portion of the manuring power will be lost.

We subjoin the results of some experiments made by M. Flockhardt, at Tharand, during the years 1857 and 1858, as reported in a recent number of the *Journal de la Societe Centrale d'Agriculture Belgique*:—

1857 Depth.	Produce per Hectare, 290 Kilogrammes of Guano per Hectare		
	Winter wheat.	Winter Rye.	Buts.
	Kilogr.	Kilogr.	Kilogr.
1. Putting in with seed	2690	2203	7402
2. From one to two inches	2644	2203	7402
3. From two to three inches	4142	2077	7848
4. From three to five inches	4670	2500	8100

1858. Depth.	Effect the second year without new manure.			
	Buts	Winter Rye	Winter Barley	With new manure Winter Barley
1. By one turn of harrow with seed	3966	3349	1058	2027
2. From 1 to 2 inches	3613	3525	1704	2064
3. From 2 to 3 inches	4885	3877	2115	2655
4. From 3 to 4 inches	5025	4230	2908	3264

“The effects mentioned in these are very feeble on account of the state of the atmosphere during