

For instance, a man reads that so and so has tried a particular course of cropping under a new management,—suppose fall wheat after timothy and clover, which timothy and clover were sown with spring wheat, on land ploughed and manured, or rather, dressed in the preceding fall with lime, at the rate of fifty bushels, or seventeen barrels of unslaked lime to the acre; that the spring wheat, timothy and clover, and lime, were all well harrowed into the ground, on the undisturbed sod in the month of April, (only one ploughing, remember, in the fall, and that a good deep one,) and the ground rolled two or three times; that the spring wheat turned out thirty bushels to the acre; that the clover, dressed with one bushel of plaster when up, gave good fall feed the same year, and was in the fall dressed with fifteen wagon loads of short dung; that the timothy and clover hay the next year yielded 2½ tons the acre, and after giving good pasture to the cows, was on the first of September ploughed down with a nine-inch wide and six inch deep furrow, with a good Scotch plough; that a subsoil plough immediately followed the Scotch plough, and loosened ten or twelve inches, or more, deeper, without bringing up any of the subsoil; that the land was then sown with fall wheat, at the rate of 1½ bushels the acre, on the same day as ploughed, then well harrowed and rolled with a heavy roller; that the wheat was twice fed down by sheep up to the first October; that there was no snow that winter, but frequent rains, hard frosts, and thaws, but that, nevertheless, the wheat was not heaved out, although, under the former system of shallow ploughing, it had been so more or less, every year; that in the spring it was harrowed with a light harrow and roller, as soon as the weather was dry enough, and timothy and clover sown again at the same time, and plastered as before, going through the same course of wheat and clover and manuring (but liming only once in six or eight years,) as might be found convenient,—the actual experiment having lasted, we will suppose for three years; that is, having yielded one crop of spring wheat, one of timothy and clover hay, and one of fall wheat, with the few intervening months of pasture; and the third year yielded thirty bushels of fall wheat the acre.

Well, an intelligent and wide-awake farmer having read this, and not being inclined to turn up his nose at it because he happened to see it in print, and imagine it was all stuff because it was in the newspaper, does not say, "I like that and will try it;" but sets himself to figure it up, which is not difficult for him, because he has been accustomed to it.—He knows that when he properly employs his men and teams, so as to have idle time only on wet days and Sundays, that a man at \$10 a month and boarded, costs him a little under 3s. c'y a day; his span of horses, with plough or wagon, &c., cost him 2s. 6d. a day; his man and team plough 1½ acre a day, in a good loam, free of stumps; his seed wheat he calculates at an average of 3s. 9d. currency a bushel; clover seed, \$5, and timothy, 5s. currency the bushel; he sows 1½ bushels of wheat, 10 lbs. of clover seed, and 5 lbs. of timothy, the acre: harrows well, four acres a day. Here then he has the materials of his calculation. He is at first staggered a little at the expense of the lime, which he can get at the kiln at 1s. 10½d. currency a barrel, but is not frightened.

CALCULATION BEFORE DETERMINING TO ADOPT THE COURSE.

Dr.	First Year.		First Year.	Cr.
Ploughing in the previous fall.....	0 3 8		30 bush. of spring wheat, at 3s. 1½d the bushel	4 13 9
Cost of 17 bbls. of lime, at 1s. 10½d. 1	11 10½		Fall grazing worth	0 5 0
Teaming & spreading the lime.....	0 10 0			
1½ bushels Spring Wheat at 3s. 9d. 0	6 7½			
10lbs. clover seed, 4s. 2d.; and 5lbs. timothy, 5d.	0 4 7			
Sowing, harrowing and rolling in ...	0 2 6			
Plaster & sowing 0	5 0			
Harvesting wheat 0	7 6			
Threshing thirty bushels at 4d. ...	0 10 0			
15 loads of dung, hauled out, and spread on the timothy & clover	0 5 0			
<i>Second Year.</i>				
Saving timothy & clover hay	0 5 0		2½ tons of hay, at \$5	3 2 6
Taking 2½ tons of hay to market ...	0 12 6		Fall grazing worth	0 3 9
One ploughing timothy and clover lay	0 3 8			
Subsoiling do. ...	0 5 0			
1½ bush. seed wheat at 3s. 9d.	0 5 7½			
Sowing	0 7½			
Harrowing & rolling do.	0 2 6			
<i>Third Year.</i>				
Timothy and clover seed to sow on wheat			30 bush. fall wheat at 3s. 9d.	5 12 6
Sowing, harrowing, & rolling in	0 2 6		Fall grazing worth	0 5 0
Harvesting wheat	0 7 6			
Threshing thirty bush. 4d.	0 10 0			
Three years' interest on land, valued at £5, and lime, say £2 10—£7 10. 1	7 0			
	8 17 3			
Deduct from these expenses, half the value of the lime, which will last 6 years at least	1 1 0			
	7 16 3			
Profit in the three years ..	6 6 3			
Or, each year £2 1 the acre, a great profit.				
	£14 2 6			£14 2 6

Having made up his mind that his calculation is correct, he sees at once what the whole thing is worth, and adopts or rejects the course on sure grounds, not guess work.

Calculation then is the groundwork of all agricultural improvement; for by first calculating what