

culture, and to sow it down to clover, with his wheat crop. He sowed the clover-seed in the early part of the month of April, or at a period when there was a light covering of snow upon the ground, and instead of sowing only three pounds of seed per acre, as is often done, he sowed ten pounds per acre. In this way he secured a full crop of young clover, and as soon as the wheat crop was removed off the ground, a light-dressing of well-fermented manure and plaster was then strewn broadcast upon the clover, which had an influence of pushing forward the clover plant amazingly. About the 15th of September, the clover crop was turned under, and the land again sown with wheat. Upon some of Mr. Johnstone's fields eighteen consecutive crops of wheat have been grown in the manner just described, and the annual production has increased from fifteen bushels up to thirty-five bushels per acre. This system of forcing the land to produce such enormous crops of wheat, for so many years, could not have been practiced had Mr. Johnstone not been fully alive to the importance of husbanding his barn-yard manure. The profits arising from Mr. J's first few years' farming operations, were invested in the purchase of a large tract of comparatively worthless hilly and rocky lands, in the immediate vicinity of his home farm, which he brought under cultivation, seeded it down to cultivated grasses, and stocked it with a large stock of thorough-bred Merino sheep. These sheep were wintered at the home-farm, upon wheat-straw and oil-cake, by which means a very large quantity of very valuable manure was made, and which, as above stated, was spread broadcast upon the young clover, and ploughed under for the wheat crop.

We by no means wish to be understood an advocate of such a severe system of cropping as that practiced so successfully by Mr. Johnstone, but do most emphatically assert, that a cheaper system of growing wheat must be put into practice than that of making naked summer-fallows, upon lands that does not require this expensive mode of cul-

tivation for the wheat crop. On certain soils, and under peculiar circumstances, a naked summer-fallow is indispensable, but in the great majority of cases, it is an injudicious application of means, to secure a crop of wheat. In a great many instances that have come under the writer's notice, the wheat crop has entirely failed through ignorance on the part of the cultivator. The practice alluded to is that of summer-fallowing and administering too liberal an application of unfermented barn-yard manure upon a soil that was, previous to the manuring, too rich in vegetable matter for the constitution of the wheat plant, whereas, if instead of summer-fallowing, the land had been deeply ploughed in the autumn, and cross-ploughed in the following spring, harrowed, rolled, and put into a thorough clean state of culture, and sown with peas, or a crop equally as well calculated to smother weeds and clean the ground, and followed by the wheat crop, the profits of the smothering crop could be made to defray the entire expense of cultivating the land for both crops, and also pay the rent of land, and leave the wheat crop an entire profit. It is possible to practice this system upon suitable soils, on an extensive scale, with nearly a certainty of the soil producing large crops of wheat of a superior quality. That the reader may form some idea of what is meant by growing a full average crop of wheat after a mustard fallow, and the entire expense of both crops being paid from the profits of the first crop, the writer would prove this position by citing an experiment recently made on his own farm. This experiment was made for the twofold object of proving that rust on the wheat plant may be prevented, and also that wheat may be grown as cheaply in this country as in any other portion of this continent. Seven acres of severely cropped land was selected for the experiment. It was ploughed in the autumn with three horses abreast, to the depth of ten inches, and before the frost set in, was well harrowed. The following spring it was cross-ploughed, harrowed, rolled, and sown with flax, at the rate