

## Experiments with Salt.

To the Editor.

SIR,—Having read many controversies on the subject of "Salt as a fertilizer," I determined to try it myself, and I now send you the results.

Experiment No. 1. On peas, three quarters of an acre, two bushels Black-eyed Marrowfat, sown on the 13th of April. Ploughed in six inches deep. A wet time following, packed the ground and rotted fully half the seed, it only coming through properly on the crown of the ridges, where the furrows stood on end. Saw a report in "Johnson's Chemistry" of peas and oats being benefited by salt and gypsum; thought it might answer for mine mixed 100 lbs. salt with 75 lbs. of gypsum, and sowed over them when about two inches high. Crop, one large waggon load of peas and straw; thrashed 24 bushels of clean peas and a little over by measure. The following year the wheat on that piece was better filled, and the straw a more beautiful colour, than the rest of the piece, although the whole was alike manured, so much so that several visitors asked me if I was growing a new kind of wheat. This led me to try another experiment.

No. 2. One acre; soil loam, about ten inches in depth; subsoil yellow clay and limestone gravel mixed, well cropped out. May, 1867, manured with 30 loads of fresh horse dung, much of it very long; had to employ a boy to fork it into the furrow as I ploughed it in; ridges one rod wide; harrowed lightly after ploughing; then sowed  $1\frac{1}{2}$  bushels of Fife wheat and half a barrel of the best common salt; harrowed all in; when the wheat was in two blades, sowed 100 lbs. of gypsum; the day after sowing the wheat a terrible rain storm washed half of it out of one side of the ridges (they happening to be across the slope), and deposited it in the water furrows, where it perished. Sowed on the 18th of May. Result—Straw moderately long, stiff, glassy looking, a beautiful pale gold colour; head well filled; very plump and clear; yield, 23 bushels; cleaned three times for seed, and separated about a bushel of tailings. Considering that the half of each ridge was washed out, as above stated, I thought it a success, for the rest of my Fife wheat only averaged 16 bushels per acre. I should have said that the bind was 23 stooks of 12 sheaves.

The same year I summer-fallowed two adjoining acres; manured with 30 loads of rich stable and yard manure per acre, and sowed them, as well as the salted acre, once ploughed, with fall wheat, Soules.

Fall of 1867. Salted piece looked the strongest; sowed plaster on the other two acres, 100 lbs. to each.

1868. Wheat badly killed; salted piece the best plant and least damaged; when ripe, the grain was better and straw firmer, glazed, and nicer colour; but as all was damaged by

winter killing, I did not think it worth while to separate the grain of the different pieces to thrash; average yield, 21 bushels per acre; the whole three acres having been seeded this spring with clover and timothy, now the salt showed its power; the clover plant was twice as strong as on the unsalted piece.

1869. Salted acre could be noticed at a distance by its dark colour; crop, five loads of hay, estimated at 1,500 lbs. each on salted acre; three each on the other two. The aftermath was double on salted acre, and tall enough to sweep the cows' bellies as they went through it.

1870. Sowed 100 lbs. of plaster on each of the three acres. Crop, four loads on salted acre; two-and-a-half each on others; again excelled in aftermath.

1871. Season too dry. Crop, two loads on salted piece, one each on other two; no aftermath on any of it worth noticing. I pitched all the loads each year myself, and was careful to put on about the same quantity each time.

Now, as all the land is alike, manured alike, and plastered alike, I attribute the very large extra returns of the one acre to the salt, and I am well satisfied with the result. I have pointed the piece out to many, and all are astonished at the great difference in appearance.

If you think these facts are worth publishing, and that they will be of interest to the farming community, it will encourage me to send you an item now and then.

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## Timber for Fence Posts.

A correspondent in the *Western Rural* has the following sensible remarks on the general principles to be kept in mind in selecting timber for fence posts:

The timber in a tree cut at its best is more lasting than that from a young tree, or from one past its prime, although the latter may show no sign of decay; and all trees lose rapidly in strength and solidity, and consequently in durability, from the ground up, and from the heart outwards. A post that is seasoned is, under the same circumstances, much more durable than one set green; and the nearer the heart the more lasting the wood in the same tree, if thoroughly sound.

I have heard men say that white cedar was of no value for a fence-post, not so good as oak, and they were right from their experience. They used the young trees, just large enough for one post. They soon decayed, and would not hold a nail, eight-pennys being used.

A white cedar should never be cut until it is large enough to saw and make four good posts; and if larger still, better, if, as said above, it is not failing—has not lost its solidity, which a cedar holds to extreme age.

A fence properly constructed of such posts, and pine or hemlock boards, with the posts set two and a half feet deep, and duly tempered in with gravel, and the nails used long tenpennys, will last fifteen or twenty years good; and if at the right time it is taken down, the posts reversed, and re-built with new nails, it will then last ten or more years longer.

A fence, to be durable, must not only be of good material, but be well built; and very often more depends upon the good judgment and honesty of the builder than upon the character of the material used.

## Lime on Sandy Soil.

"Rustic," of Seymour West, on making the remark in the company of several farmers "that sandy soil, dressed with lime, enabled it to give a better crop of wheat both as regards quantity and quality," was met with the rejoinder "that lime was good for a clay soil, but did not much benefit sandy land, making it lighter than before its application."

The statements made upon both sides are too sweeping; that made by "Rustic" is, however, correct, provided that the sandy land to which the lime be applied be not already worn out or be not a pure and simple sand.

The chief effect of lime upon soils is due to the fact that it hastens decomposition. If there be nothing in the soil to which it may be applied to decompose, that is if there be not vegetable matter whose putrescent or rotting powers are lying dormant for want of stimulating, then lime, which must act upon something, would probably act injuriously upon the growing plant.

If the sandy land to which lime be applied has lately borne a crop of clover, has been lately reclaimed from the forest, or has been lately dressed with barn-yard manure, then there can be no doubt of the efficacy of lime, which, by stimulating and hastening the decomposition of such animal or vegetable manure, will bring the plant food contained into such a form that it can be readily assimilated by the growing plant, and both the quantity and quality of the wheat will undoubtedly be increased.

We speak, however, of lime, as chiefly mechanical in its effects; for by chemical analysis it is shown that the ashes of 100 parts of wheat straw contain 5 parts, and of wheat 3.35 parts, of phosphate of lime.

The *contra* statement made to "Rustic," that lime made sandy land lighter than before, was incorrect.

Lime has the purely mechanical effect of making clay lands more friable, while upon sandy soils its effect is to cement together, upon the same principle as that which guides the formation of mortar.

We doubt not that the opposers of "Rustic" would allow that plaster of Paris makes a sandy soil more consistent, and this substance, rightly known as gypsum, is composed of about 33 per cent. of lime, the other 66 parts being made up in equal proportions of sulphuric acid and water.

We refer our correspondent to a fuller article upon lime, contained in the *CANADA FARMER* of November, 1870, by C. E. W.

The Canada thistle is making fearful headway in Bureau and La Salle counties, Illinois. There are about sixteen acres in Bureau, and La Salle has at least two thousand acres of them. So it is said, and allow us to suggest to all concerned, that in a few years, unless it is checked and exterminated, there will be two hundred thousand acres covered with it.