

"Piaemia." Under this disease he sank rapidly, and expired on the 18th November in the 54th year of his age. His last moments were free from suffering. Living, he was a humble, devout Christian. His death was that of the righteous. "His last end like his."

Archerfield, 25th November, 1861.

The Wheat Cr.p.

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After the soil, the seed is the next point which claims attention. Here the conditions of success are simpler, and far better understood. In all cases care should be taken that the seed be perfect (uninjured), and fully matured; and that it be of the best quality. If the seed be much bruised or injured, its germinative powers may be entirely destroyed, and it decays in the soil without producing a plant at all. If it be slightly injured or not fully matured, it generally produces a weak and sickly plant, which fails for want of nourishment, before it is able to throw out roots and obtain its own supply; or, if it has strength sufficient to struggle through this period of its existence, its generally debilitated condition renders it liable to the attacks of those fungoid and insect enemies which accompany every stage of its future growth.

Lastly, the mode of sowing requires consideration—whether by "broadcast," "drilling," or "dibbling" the best results are to be obtained. By the first, time and labour are economised, at the expense of an increased quantity of seed; by the second, the quantity of seed is economised, but the cost of labour is increased; and by the last, the proportion of seed is still farther lessened, while the cost of labour is still augmented. The first mode renders any subsequent operation, as hoeing, weeding, &c., impracticable; while the two latter modes give every facility to them, and, at the same time, more equally and regularly distribute the plants over the surface.

The regularity of distribution over the surface is of some importance to the future yield. An equal, regular plant is usually more productive, both in quantity and quality, than where the plant is patchy—luxuriant in some places and defective in others. The ordinary practice of seeding is far too close; a greater distance between the plants would—provide, of course, that the seed were good and the soil in proper condition—give much better results, not only as regards the crop—the primary crop—whatever it may be, but also as regards the secondary crop—seeds, for instance, that might be sown with it. The usual width of drills may be taken at 6 to 9 inches; if this be increased to 12 inches the effect on the grain crop, but more particularly on the seeds, is very marked.

The Lois-Weedon system resembles much that advocated by Jethro Tell about a century ago—deep cultivation and wide drilling—by which, without any manures whatever, a large crop of wheat could be obtained, it was said, year after year, off the same ground. Here however, a difference of material importance exists between the two systems. Tull operated on the same ground, while by the Lois-Weedon system it is not precisely the same ground that is cropped in each succeeding year; indeed it is merely a system of alternate fallowing and cropping, the repeated fallowing being equivalent (during a certain time (to the manuring of the Essex and other heavy land fallowing practices.

In this, the wheat is drilled in 12-inch rows; and between every set of three drills there is an interval of three feet, which is dug or forked, and kept well stirred and pulverized during the whole time the crop is growing and coming to maturity. In fact, it is simply a naked fallow, extending over a portion of the field equal in extent to that occupied by the crop. When the crop is harvested, the empty spaces are quite ready, in thoroughly clean and mellowed state, for the reception of the seed; this space is then sown in the same manner, and the next year's crop is produced solely upon that portion of the field which was under a naked fallow the past year. It appears to be, therefore, clearly a system of alternate crop and fallow; and by this arrangement of wide drilling and open intervals of space, with deep tillage and perfect freedom from weeds, the crop on each half acre so cultivated is found to exceed in quantity the average of that grown under the ordinary mode of cultivation upon the whole acre surface, while the sample is always more regular and of better quality.

The returns of wheat produce from one particular piece of land upon which the practice has been continuously tried since its commencement in 1847 are thus given by the Rev. S. Smith:

1847	.....not measured.	1853	.....	{ returns good,
1848	.....34 bushels.	1854	.....	{ but not noted
1849	....." "	1855	.....	40 bushels.
1850	....." "	1856	.....	" "
1851	....." "	1857	.....	" "
1852	.....34 ..	1858	.....	" "

These returns must be understood to be from each half acre under crop—the other half acre, thanks to the working it has during its fallow, being in an admirable condition for the next year's crop. The tillage processes during the fallow, Mr Smith tells us, amount to 12s. to 18s. per acre. The cost would be diminished to one-half or one third, now that we have successfully harnessed steam to our plows and cultivators. The increased vigour of plants, owing to the deep tillage and open growth, shows itself in the stoutness of the straw, which frequently exceeds 2 tons to the half acre, and is very rarely laid. A practice of earthing up the plants with a light mouldboard, which Mr. S.'s system of