

and I do it, with so much the more confidence, as it enters into the views of a magistrate and of a Society whose endeavours are directed to the Public good.

This account will be divided into four parts; In the first, I have described the squares in which I made my experiments and of which I have furnished a Plan; In the second, I have extracted from the experiments, the cause of the disease; In the third I have pointed out the Remedy; and in the fourth the manner of applying it, which any Workman may do with ease. I shall add some observations which may be useful.

A DESCRIPTION

Of various Experiments made on twenty two squares or Plots of land.

The first experiments that I made last year were on a small scale, and in an enclosure; this year I have made them on a larger scale, and in the open field, on a piece of Ground 160 feet in length and 50 feet in breadth, which I divided into three parts, and the whole into twenty two squares of twelve rows each.

The six squares which made the first division were sown in September, two days after the full moon, the wind at west; eight squares, which composed the second division, were sown the 7th October, a day or two before the change of the moon the wind being south; and the remaining eight squares, forming the third division, were sown on the 17th October the moon then entering her second quarter, and the wind at North; and in order to determine whether some other received opinions were to be depended upon, I put pigeons dung on some of the squares, and sheeps dung on others. I shall now give a full detail of the Various experiments made on each square, and of the success resulting therefrom.

First square in four Experiments.

Sown the second day after the full moon the wind at west.

Three rows were sown with sound wheat taken from the granary, but previous to sowing it, it was sprinkled with some dust or powder of smutty wheat and then sown without being either washed or limed.

In the three rows above mentioned, two thirds at least, of the ears were found to be smutty grain, and many others to be full of a black dust.

Three other rows were sown with sound grain mixed with some smutty wheat, this was only limed in the usual manner, in those three rows about one tenth of the ears was smutty, and eight other ears were also found to be filled with black dust.

The seed of the next three rows was likewise perfectly sound, it was not mixed with the smutty grain before its sowing, but was washed in common water and afterwards in a lixivium or a lye of ashes as recommended by Mr. Tillet, and before harrowing it in, some powder of smutty wheat was scattered over it.

In those rows, one half of the ears at least was smutty and many were found to be full of a black powder.