

experiment affording the materials, science arranging and building up a perfect system. They too will serve as a check upon each other. The present age is progressive and revolutionary, and in its yearnings after progress sometimes may overstep the bounds of prudence. It needs judicious conservatism to check the attraction of novel theories and correct the influence of fanciful abstractions. Maryland, more than any other State, should apply the aids of science to her Agriculture, her geographical position in its natural advantages gives her the facilities of market possessed by none of her sister States, her climate is most propitious to the cultivation of all the necessaries and luxuries of life. The cost of means to improve her soil will be less than elsewhere, because neither they, nor the crops which they produce, can be taxed with expensive carriage. She has granted millions to open a communication with the fertile virgin soils of the great West, which will pour its productions into markets in competition with her own, a competition which she can successfully resist only by improving her soils and protecting her agriculture. Without this she has every thing to fear from competition; with it, nothing.

In accordance with the manner which I have proposed to myself as best suited to carry out the purposes of the law under which I have the honor to act, I shall present to the citizens of Maryland, in as brief and concise, and at the same time as clear a manner as possible, 1st. The true philosophical principles of Agriculture, with a short description of the elementary bodies, or their combinations found in plants. 2d. a brief history of the manures in general use, whether foreign or domestic, with precise directions for their preparation and application; under this head I shall state whatever facts in relation to them as in my judgment will best subserve the interests of the Agricultural community. 3d. I shall show as far as possible the proper application of these manures to that portion of the State visited since my last report to your honorable body.

All vegetable substances depend for their production upon certain substances either furnished to them from the air or from the soil upon which they grow. Upon an examination of any or all of the products of the earth, there are invariably found two kinds of bodies sufficiently distinct in their general and special properties to be arranged under two separate and distinct classes, the one of these is called Organic, the other Inorganic; the former having its form easily and rapidly changed by heat, or by the slow process of decomposition, the latter being more fixed and not susceptible of change by causes which entirely destroy the combinations of the former. Let a piece of wood or straw, grains of wheat, or any vegetable substance be exposed to a red heat, with free access of air, and we find, after a certain time, that their forms are changed, their bulk very much diminished, and a