

made, not only made by Him whose word was creation, but made in a form conducive of and prior to vegetable life.

We read that God said, "let the dry land appear;" this was inorganic, or mineral matter, and after that, God said, "let the earth (inorganic matter) bring forth grass, the herb yielding seed, and the fruit tree yielding fruit after his kind, whose seed is in itself, upon the earth; and God saw that it was good." Here organic matter plainly follows, as the result indeed of inorganic matter.

We then must bear this in mind, that to procure organic, we must first supply the inorganic matter, and that on these and all soils, to obtain vegetable matter, we must first supply all the materials necessary to form the structures of organic life. We then should add to these soils lime, magnesian lime if possible, but if that cannot be procured, apply to them *unslaked lime*, without the magnesia; it will supply a deficiency, disintegrate the soil and cause the growth of organic matter, which will aid this process very materially. Here I will make a remark of general application for the purpose of correcting an erroneous opinion which I find still to be very prevalent, and which will continue to exist as long as those who pretend to teach the science of agriculture are themselves ignorant of it, and also without experimental knowledge. It is, that lime only acts in decomposing the vegetable matter of a soil, and in no other way. Now since lime is necessary to the existence of vegetable matter, is it not apparent that this view is incorrect? Before vegetable matter was lime existed, and to say that we must have vegetable matter before we apply lime, is to say that which is impossible of performance. It is to say that we must have the creature before the creator. If lime and all the other necessary constituents be present in *proper* form, as to solubility, physical qualities, &c., abundant vegetable matter will always be produced, so that lime is necessary to the production of vegetable matter, and does not depend upon its presence to produce beneficial effects. Lime must precede the existence of organic life, and should be applied to produce it, when absent, and not on account of its presence. I have considered it necessary to make this explanation here, because of a query just made to me by a resident on this very kind of soil, who is a very intelligent gentleman, as to whether he should apply lime until he had procured a coating of vegetable matter; he believing, as he had been taught, that lime was useless without the presence of vegetable matter, and on this account had been omitting to apply lime until he could obtain something upon which it might act. This shows how important it is to have correct notions of things generally diffused in relation to agriculture, how necessary it is to establish true theories; for without them, general true practices cannot be followed. When true, they serve to cause correct action and greatly benefit all those who apply them.