

For many years our leading naturalists and biologists have been engaged in investigating these problems and in classifying their observations under natural and well defined laws. It is only within recent years, however, that the student of natural progression has been able to deduce from his observations and study any suggestion as to how plants under domestication might be "bred up" by the applications of principles common to all living phenomena.

HISTORY OF THE PROGRESS OF THE IDEA OF SPECIES FORMATION.

In order that we may clearly understand the possibilities of the artificial interference in plant life as a means of evolving improved races and strains, and that we may see how far such work is based on scientific and, therefore, sound principles, we shall examine briefly some of the various theories and ideas which have been advanced respecting the manner in which our present species, varieties and strains have come into existence.

We find that the idea of organic progression or evolution had its birth among the early Greeks, its renaissance among the early natural philosophers beginning with Bacon and extending to the time of Herder (1744-1803) and that these men in turn served to inspire further investigation and study by Buffon, Erasmus Darwin and Goethe, all of whom are considered as contemporaries of Darwin, the first real propounder of evolution.

Evolution, as a natural explanation of the origin of the higher forms of life, developed from the mythological teachings of the early Greeks into the general conception of Aristotle (384-322 B.C.) who, over 2,200 years ago, believed that higher forms of life originated or were developed from lower forms in some mysterious way. Development or the gradual perfection in the structure of an organism was Aristotle's main thesis and constituted the principle thought in his natural philosophy. He was also a strong believer in the law of adaptation and in atavism. The principle of Syngenesiis was recognized long before Aristotle's time by Empedocles, who may be said to be the father of evolution. Empedocles conceived the idea of "The survival of the fittest" six centuries before Christ.

Epicurus (341-270 B.C.) established the distinction between natural and supernatural causation, and gathered arguments from his predecessors to support the principle of natural law.

The idea of the changing rather than of the fixed order of things had its origin among the Greeks in Heraclitus (505-475 B.C.)

For many centuries all study was subject to the approval of the church so that from the time when Christian doctrines shook off Aristotelianism or the scientific reading of the Bible until