

some facts of value can be gleaned: and other facts will hereafter be incidentally given. One chief object in the two following chapters is to show how many characters in our cultivated plants have become variable.

Before entering on details a few general remarks on the origin of cultivated plants may be introduced. M. Alph. De Candolle<sup>1</sup> in an admirable discussion on this subject, in which he displays a wonderful amount of knowledge, gives a list of 157 of the most useful cultivated plants. Of these he believes that 85 are almost certainly known in their wild state; but on this head other competent judges<sup>2</sup> entertain great doubts. Of 40 of them, the origin is admitted by M. De Candolle to be doubtful, either from a certain amount of dissimilarity which they present when compared with their nearest allies in a wild state, or from the probability of the latter not being truly wild plants, but seedlings escaped from culture. Of the entire 157, 32 alone are ranked by M. De Candolle as quite unknown in their aboriginal condition. But it should be observed that he does not include in his list several plants which present ill-defined characters, namely, the various forms of pumpkins, millet, sorghum, kidney-bean, dolichos, capsicum, and indigo. Nor does he include flowers; and several of the more anciently cultivated flowers, such as certain roses, the common Imperial lily, the tuberose, and even the lilac, are said<sup>3</sup> not to be known in the wild state.

From the relative numbers above given, and from other arguments of much weight, M. De Candolle concludes that plants have rarely been so much modified by culture that they cannot be identified with their wild prototypes. But on this view, considering that savages probably would not have chosen rare plants for cultivation, that useful plants are generally conspicuous, and that they could not have been the inhabitants of deserts or of remote and recently discovered

<sup>1</sup> 'Géographie botanique raisonnée,' 1855, pp. 810 to 991.

<sup>2</sup> Review by Mr. Bentham in 'Hort. Journal,' vol. ix. 1855, p. 133, entitled, 'Historical Notes on cultivated

Plants,' by Dr. A. Targioni-Tozzetti. See also 'Edinburgh Review,' 1866, p. 510.

<sup>3</sup> 'Hist. Notes,' as above, by Targioni-Tozzetti.