

produced almost every year; for instance,⁵ a golden-coloured variety has been recently raised in England from a black grape without the aid of a cross. Van Mons⁶ reared a multitude of varieties from the seed of one vine, which was completely separated from all others, so that there could not, at least in this generation, have been any crossing, and the seedlings presented "les analogues de toutes les sortes," and differed in almost every possible character both in the fruits and foliage.

The cultivated varieties are extremely numerous; Count Odart says that he will not deny that there may exist throughout the world 700 or 800, perhaps even 1000 varieties, but not a third of these have any value. In the catalogue of fruit cultivated in the Horticultural Gardens of London, published in 1842, 99 varieties are enumerated. Wherever the grape is grown many varieties occur: Pallas describes 24 in the Crimea, and Burnes mentions 10 in Cabool. The classification of the varieties has much perplexed writers, and Count Odart is reduced to a geographical system; but I will not enter on this subject, nor on the many and great differences between the varieties. I will merely specify a few curious and trifling peculiarities, all taken from Odart's highly esteemed work,⁷ for the sake of showing the diversified variability of this plant. Simon has classed grapes into two main divisions, those with downy leaves, and those with smooth leaves, but he admits that in one variety, namely the Rebazo, the leaves are either smooth, or downy; and Odart (p. 70) states that some varieties have the nerves alone, and other varieties their young leaves, downy, whilst the old ones are smooth. The Pedro-Ximenes grape (Odart, p. 397) presents a peculiarity by which it can be at once recognised amongst a host of other varieties, namely, that when the fruit is nearly ripe the nerves of the leaves or even the whole surface becomes yellow. The Barbera d'Asti is well marked by several characters (p. 426), amongst others, "by some of the leaves, and it is always the lowest on the branches, suddenly becoming of a dark red colour." Several authors in classifying grapes have founded their main divisions on the berries being either round or oblong; and Odart admits the value of this character; yet there is one variety, the Maccabeo (p. 71), which often produces small round, and large oblong, berries in the same bunch. Certain grapes called Nebbiolo (p. 429) present a constant character, sufficient for their recognition, namely, "the slight adherence of that part of the pulp which surrounds the seeds to the rest of the berry, when cut through transversely." A Rhenish variety is mentioned (p. 228) which likes a dry soil; the fruit ripens well, but at the moment of maturity, if much rain falls, the berries are apt to rot; on the other hand, the fruit of a Swiss variety (p. 243) is valued for well sustaining prolonged humidity. This latter

⁵ 'Gardener's Chronicle,' 1864, p. 488.

⁶ 'Arbres Fruitiers,' 1836, tom. ii.

p. 290.

⁷ Odart, 'Ampelographie Universelle,' 1849.