

the peach is the descendant of the almond, improved and modified in a marvellous manner.

One fact, however, is opposed to this conclusion. A hybrid, raised by Knight from the sweet almond by the pollen of the peach, produced flowers with little or no pollen, yet bore fruit, having been apparently fertilised by a neighbouring nectarine. Another hybrid, from a sweet almond by the pollen of a nectarine, produced during the first three years imperfect blossoms, but afterwards perfect flowers with an abundance of pollen. If this slight degree of sterility cannot be accounted for by the youth of the trees (and this often causes lessened fertility), or by the monstrous state of the flowers, or by the conditions to which the trees were exposed, these two cases would afford a good argument against the peach being the descendant of the almond.

Whether or not the peach has proceeded from the almond, it has certainly given rise to nectarines, or smooth peaches, as they are called by the French. Most of the varieties, both of the peach and nectarine, reproduce themselves truly by seed. Gallesio<sup>29</sup> says he has verified this with respect to eight races of the peach. Mr. Rivers<sup>30</sup> has given some striking instances from his own experience, and it is notorious that good peaches are constantly raised in North America from seed. Many of the American sub-varieties come true or nearly true to their kind, such as the white-blossom, several of the yellow-fruited freestone peaches, the blood clingstone, the heath, and the lemon clingstone. On the other hand, a clingstone peach has been known to give rise to a freestone.<sup>31</sup> In England it has been noticed that seedlings inherit from their parents flowers of the same size and colour. Some characters, however, contrary to what might have been expected, often are not inherited; such as the presence and form of the glands on the leaves.<sup>32</sup> With respect to nectarines, both cling and freestones are known in North America to reproduce themselves by seed.<sup>33</sup> In England the new white nectarine was a seedling of the old white, and Mr. Rivers<sup>34</sup> has recorded several similar cases. From this strong tendency to inheritance, which both peach and nectarine trees exhibit,—from certain slight constitutional differences<sup>35</sup> in their nature,—and from the great difference in their fruit both in appearance and flavour, it is not surprising, notwithstanding that the trees differ in no other respects and cannot even

<sup>29</sup> 'Teoria della Riproduzione Vegetale,' 1816, p. 86.

<sup>30</sup> 'Gardener's Chronicle,' 1862, p. 1195.

<sup>31</sup> Mr. Rivers, 'Gardener's Chron.,' 1859, p. 774.

<sup>32</sup> Downing, 'The Fruits of America,' 1845, pp. 475, 489, 492, 494, 496. See also F. Michaux, 'Travels in N. America' (Eng. transl.), p.

228. For similar cases in France see Godron, 'De l'Espèce,' tom. ii. p. 97.

<sup>33</sup> Brickell's 'Nat. Hist. of N. Carolina,' p. 102, and Downing's 'Fruit Trees,' p. 505.

<sup>34</sup> 'Gardener's Chronicle,' 1862, p. 1196.

<sup>35</sup> The peach and nectarine do not succeed equally well in the same soil: see Lindley's 'Horticulture,' p. 351.