

produced yellow berries. Vilmorin<sup>45</sup> observed in a bed of *Saponaria calabrica* an extremely dwarf variety, and raised from it a large number of seedlings; some of these partially resembled their parent, and he selected their seed; but the grandchildren were not in the least dwarfed: on the other hand, he observed a stunted and bushy variety of *Tagetes signata* growing in the midst of the common varieties by which it was probably crossed; for most of the seedlings raised from this plant were intermediate in character, only two perfectly resembling their parent; but seed saved from these two plants reproduced the new variety so truly, that hardly any selection has since been necessary.

Flowers transmit their colour truly, or most capriciously. Many annuals come true: thus I purchased German seeds of thirty-four named sub-varieties of one race of ten-week stocks (*Matthiola annua*), and raised a hundred and forty plants, all of which, with the exception of a single plant, came true. In saying this, however, it must be understood that I could distinguish only twenty kinds out of the thirty-four named sub-varieties; nor did the colour of the flower always correspond with the name affixed to the packet; but I say that they came true, because in each of the thirty-six short rows every plant was absolutely alike, with the one single exception. Again, I procured packets of German seed of twenty-five named varieties of common and quilled asters, and raised a hundred and twenty-four plants; of these, all except ten were true in the above limited sense; and I considered even a wrong shade of colour as false.

It is a singular circumstance that white varieties generally transmit their colour much more truly than any other variety. This fact probably stands in close relation with one observed by Verlot,<sup>46</sup> namely, that flowers which are normally white rarely vary into any other colour. I have found that the white varieties of *Delphinium consolida* and of the Stock are the truest. It is, indeed, sufficient to look through a nurseryman's seed-list, to see the large number of white varieties which can be propagated by seed. The several coloured varieties of the sweet-pea (*Lathyrus odoratus*) are very true; but I hear from Mr. Masters, of Canterbury, who has particularly attended to this plant, that the white variety is the truest. The hyacinth, when propagated by seed, is extremely inconstant in colour, but "white hyacinths almost always give by seed white-flowered plants;"<sup>47</sup> and Mr. Masters informs me that the yellow varieties also reproduce their colour, but of different shades. On the other hand, pink and blue varieties, the latter being the natural colour, are not nearly so true: hence, as Mr. Masters has remarked to me, "we see that a garden variety may acquire a more permanent habit than a natural species;" but it should have been added, that this occurs under cultivation, and therefore under changed conditions.

<sup>45</sup> Verlot, op. cit., p. 38.

<sup>46</sup> Op. cit., p. 59.

<sup>47</sup> Alph. De Candolle, 'Géograph. Bot.,' p. 1082.