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in summer, and

on this account the farmer turns his first crop into hay, and depends upon the humble bee to turn his second crop into seed. (Read Darwin, page 57.)

Important as the humble bee may be, still it can never serve man like the hive of bees, until it stores more food, and lives over the winter in colonies, so as to be plentiful in the spring—for it is then that Nature clothes our fruit trees in beautiful colors and envelops them in a sweet perfume, which attracts these marriage priests, the bee, to fulfil one of the greatest blessings to man—namely, the replenishing of the earth with endless varieties of flowers and fruit by cross fertilization, for we are now dealing with Nature's method of propagation and variation—namely, seedlings, from which all the varied and beautiful species of plants are derived, and by which only can the stamina and constitution be kept up.

All horticulturists, in raising hardy plants and trees, to stand the rigor of northern winters, advise raising seedlings. Especially has this been the custom in each culture. It is also very essential that our apples, pears, plums, etc., should be cross-fertilized, for seed that has been crossed with pollen from another variety of the same species of plant will be small and plump, showing a strong vitality, which again influences the covering of those seeds which we call the fruit. This is shown in a very marked and decided manner in the apple or pear, which has five carpels or seed pockets, needing five distinct fertilizations, and should any of these seeds fail to develop in any section, that part of the fruit will be small and defective, and in total failure to set any seed the fruit will be small indeed and quite unmarketable. (Read Darwin, page 57.)

The influence of these cross seedlings is very pronounced in the fruit problem (read Prof. Saunders on the grape), and the extent to which this variation (beneficial or otherwise) can be carried is

exemplified in the great number of varieties of our domestic and wild fruits and flowers, which must all have sprung from seedlings. I may mention a few chance seedlings of merit, with which I am intimately acquainted; for instance, there is the "Jessie Strawberry," which was a chance seedling of the Sharpless, and a decided improvement over its parent; the "Cuthbert Raspberry," which was found in a wild berry patch; the "Delaware Grape," found in the garden of Mr. Paul Prevost, Frenchtown, N.J.; and also the "Princess Louise Apple," found by Mr. Wolverton under one of his "Snow" or "Fameuse" apples trees, and disseminated by the Ontario Fruit Growers' Association on account of its high quality, and to show the value in which some seedlings are held, I will mention that the "American Wonder" pea brought the hybridizer \$1,000 for the first bushel; also "Fay's Prolific" currant (a cross between the Cherry and Victoria) brought the propagator \$20,000, and no doubt the originator twice that amount.

Now, when we consider the number of unisexual plants, like the Cob or Filbert nut, for example, in which the male and female flowers are separate and in different parts of the same tree, and in some of our domestic plants, like the hemp, hop and holly, in which the male and female blossoms are on different trees (read Darwin, page 73); also that some of our very best fruits, like the Bartlett pear and Northern Spy apple, are completely self-sterile, requiring the pollen from other members of the same family to fertilize them before we can indulge in their luscious fruits, we must acknowledge the existence and great value of some agency other than the wind to effect this fructification, and we must, without any doubt whatever, give the honey bee almost all the credit for the beautiful flowers that carpet this earth, and for the luscious fruits that are so priceless in contributing to our health.