

POMONA HEREFORDIENSIS;  
CONTAINING  
COLOURED ENGRAVINGS  
OF THE  
OLD CIDER AND PERRY FRUITS  
OF HEREFORDSHIRE.

WITH SUCH  
NEW FRUITS  
AS HAVE BEEN FOUND TO POSSESS SUPERIOR EXCELLENCE.

ACCOMPANIED WITH  
A DESCRIPTIVE ACCOUNT OF EACH VARIETY,

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## PRELIMINARY OBSERVATIONS.

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It had unquestionably been fortunate for mankind if the use of fermented liquors had never been introduced amongst them, and still more fortunate, if the means of concentrating, by distillation, the noxious qualities of those liquors, had remained unknown. But the luxuries and artificial wants of preceding generations, become the necessaries of life amongst those which succeed; the constitutions of our children become adapted to the acquired habits of their ancestry; and it may be questioned whether our peasantry, in the aggregate, could now toil through the heats of summer without the aid of fermented liquors, though it must be admitted that these do little more than enable them to borrow, from the future, the stimulus to exertion in the present hour. That the labouring classes will not consent to try the experiment is certain; and whether fermented liquors be necessary, or not, to the peasant, they certainly are so to the farmer, who could not possibly get his corn collected without their aid: and it therefore only remains to be enquired, whether such liquors can be most advantageously obtained from malt alone, or from that partly, and in conjunction with fruit liquors.

The soils, which are best calculated for the growth of barley, are generally unfavourable to that of the apple and pear; and the strong argillaceous loams, in which the apple and pear succeed best, are almost always very ill calculated for the culture of barley. Upon such soils, therefore, fruit liquors can probably be obtained

with much advantage; and the high rents which are given for young and healthy orchards, in every part of England, sufficiently prove the value of their produce.

But the success and profits of the planter depend almost wholly upon the proper choice of varieties of fruit, and the selection of these will generally prove a task of much difficulty: for our nomenclature of fruits, of almost every species, is so imperfect and confused, that two or more varieties are generally confounded under one name, and the same variety is as frequently known under many different names: experience appears also to have sufficiently proved that each variety is fit for culture during a limited period only, after it has first sprung from seed; and therefore the sources of error, in the selection of proper fruits, are exceedingly numerous.

With a view to prevent the losses and inconveniences which have arisen from the preceding causes, and from the rapid decay of every old variety of the apple and pear, the Agricultural Society of Herefordshire proposed the publication of coloured Plates of those old varieties to which their county has been indebted for its fame, and also of a few new varieties, which have been introduced under their patronage, and are believed to be not inferior to the old. Written descriptions have proved generally sufficient to enable the botanist to distinguish one original species of plants from another; but coloured Plates alone are capable of pointing out those slight discriminations of character, which often distinguish one variety of fruit from another, of any given species.

The decay of every variety of the apple and pear, which has been long cultivated, is now very generally admitted; and therefore a more particular account, than has hitherto been given, of the means by which the most valuable new varieties have been obtained, may probably not be unacceptable to the possessor of the Pomona Herefordiensis, particularly if he be no botanist. Preparatory to

these experiments many varieties of the apple were collected, which had been proved to afford, in mixture with each other, the finest ciders ; a tree of each was then obtained by grafting upon a paradise stock, and these trees were trained to a south wall, or if a Siberian crab, to a west wall, till they afforded blossoms ; and the soil in which they were planted was made of the most rich and favourable kind. Each blossom of this species of fruit contains about twenty chives, or males, and generally five pointals, or females, which spring from the centre of the cup, or cavity of the blossom. The males stand in a circle just within the bases of the petals, or flower leaves, and are formed of slender threads, each of which terminates in a small yellow ball, or anther. It is necessary, in these experiments, that both the fruit and seed should attain as large a size, and as much perfection, as possible ; and therefore a few blossoms only were suffered to remain upon each tree from which it was intended to obtain seeds. As soon as the blossoms were nearly full-grown, every male in each was carefully extracted, proper care being taken not to injure the pointals or females ; and the blossoms, thus prepared, were closed again, and suffered to remain till they opened spontaneously. The blossoms of the tree which it was proposed to make the male parent of the future variety, were accelerated by being brought into contact with the wall, or retarded by being detached from it, so that those were made to unfold at the required period ; and a portion of their pollen or farina, when ready to fall from the mature anthers, was, during three or four successive mornings, deposited upon the pointals of the blossoms, which consequently afforded seeds. It is necessary in this experiment that one variety of apple only should bear un-mutilated blossoms ; for where other varieties are in flower at the same time, the pollen of these will often be conveyed by the bees to the prepared blossoms ; and the result of the experiment will in consequence be uncertain, and unsatisfactory.

Every seed, though many be taken from a single apple, will afford a new and distinct variety, which will generally be found to bear some resemblance to each of its parents. Examples of this are presented in the Grange apple and Downton pippin, and in the Foxley apple and Siberian Harvey.

After varieties are thus formed, the operator has still to wait long before he can estimate the success of his labours. A seedling pear-tree does not often bear fruit till it is ten, and sometimes not till it is sixteen or eighteen years old; but a seedling apple-tree will generally produce fruit at six or seven years old, and sometimes even at four, when either of its parents has been the Siberian crab. The success of the experiment is also still uncertain; many of the new varieties will be worthless; and where the fruits are good the trees will often prove unproductive, or defective in health and vigour; and the planter must think himself fortunate if, under the best management, fifty seeds afford a single fine variety for the press; though many will probably be above mediocrity.

Many different methods of raising and preserving orchards are practised; but the following is that which I can best recommend. Let a soil of good quality be selected for a nursery, which should be trenched eighteen inches deep, and planted with seedling crab or pear stocks of one year old, each plant being placed at the distance of six feet from others. These will be fit for grafting at two years old; and an acre of ground, thus planted, will contain about 1500 trees, and consequently enough to plant about forty acres, where each tree stands at twelve yards distance from others. A nursery thus planted, when the trees are seven or eight years old from the seed, will form a more productive orchard than can be obtained by any other means with which I am acquainted; and during the earlier periods of the growth of the trees, they will be rather benefited than injured if the ground be planted with potatoes, or other low-growing crops, with proper manure. During

the growth of the trees in the nursery they should not be pruned to single stems, without leaves, as is usually done in nurseries ; but each should retain many small lateral branches, which will tend to make the young trees grow strong and taper in their stems, and will also afford much fruit whilst the trees be very young. I would recommend the Downton pippin for an experiment of this kind, in preference to any other variety.

At the end of eight or nine years, from the time when the trees are first planted, they will have covered with their branches the whole surface of the ground, and will then begin to injure each other, if the whole be suffered to remain. At this period, therefore, every other row of trees, and at no distant subsequent period, every other tree in the remaining rows must be taken away, and if this be done with proper care, and leaving the roots at least two feet long upon each side of the trunks, such trees may be removed with still less risk than such as are much smaller. But to insure success, it will be necessary to take off much the greater part of the lateral branches ; and the holes in which the trees are to be planted must be made not less than six feet wide and eighteen inches deep, placing the turf, if the field be pasture, in the bottom, and taking care that the trees be not planted deeper in the soil, than they previously grew. Each tree will require, during the first year, a stake and a few bushes to protect it ; after which nothing more will be wanting than to wash its trunk annually with lime and water and cow dung, to defend it from the teeth of sheep and cattle.

The supernumerary trees should be taken from the nursery as soon afterwards as convenient ; but with proper attention to the preceding directions, both pear and apple-trees may be removed with the most perfect success when twenty years old, and when their trunks are five or six inches in diameter.

Comparatively few of the Subscribers to the Pomona Herefordensis will be interested in learning the art of making cider ; and

were it otherwise, the minute description of the machinery and processes necessary would much exceed the intended limits of the present publication. I shall therefore only give a general outline of the most approved practice; and I must refer the reader, who wishes for further information, to a small work upon that subject, in which I have detailed every particular which will be found necessary to the inexperienced planter.\*

The art of making fine cider and perry is exceedingly simple, when proper varieties of fruit, in a perfect state of maturity, can be obtained. Such fruit should remain in heaps of not more than twelve inches deep, in the open air till it has become perfectly mellow, and it should then be ground in a mill of stone till the pulp and rind are perfectly reduced, and have acquired a deep and uniform brown colour. The juice is then expressed, and placed in casks to ferment, where it is as soon as possible separated from its grosser lees; and excess of fermentation is prevented by placing the casks in a cool and airy situation, and by drawing off the liquor from one cask to another.

An opinion is very generally entertained that fine ciders and perries can be obtained from a few particular soils only; but this opinion has been derived from ill-conducted experiments made with improper varieties of fruit; and I believe there are very few soils in which apples will grow, in which one amongst the five new varieties of the apple, which are represented in the annexed plates, will not afford cider of great excellence. The short period within which these varieties have come first into existence has not permitted sufficient experiments to be made, by which it can be accurately ascertained to what kind of soil each is best adapted; but I shall nevertheless endeavour to direct the planter, as far as I am enabled by such observations as I have had opportunities of making.

\* Treatise on the Culture of the Apple and Pear, third Edition.