HORTICULTURE.

Arrangements should have been made before now, for cropping the kitchen garden the ensuing summer, and a certain portion of ground alloted for each particular crop or crops. This would prevent much trouble and confusion throughout the summer. In all situations, and under all circumstances, it is highly recommendable to keep a cropping table and note the time of sowing, planting, and gathering, with remarks on each description of vegetable; this table would be of great value in pointing out the time of sowing in that particular locality, so as to have the crops come in at the time required.

We can testify the utility of a garden diary; but there is one consequence of such precision, which is not generally noticed, and this is the great knowledge of rotation, which an observant amateur may thus acquire, and now, at this season, it will be well to commence a system of cropping. We require chemical analysis of plants and soils, to certify our proceeding, but in the meantime, order and routine will do a good deal, while scientific research advances. As a slight assistance for the time, the following suggestions are offered:—

"Never sow peas twice in succession, unless some autumnal crop of broccoli has intervened- alternate freely with any of the cabbage family and with potatoes. The cabbage genius crop for most vegetables—swoad-beans, and kidney-beans may follow it—and all the spindle-rooted plants, come in well after potatoes not manured—the ground should be sifted to the depth of six inches for such roots.—Onions like a deep and well manured soil.

If berry-bearing shrubs are not yet in leaf, they should be regulated. Gooseberries do best on young wood, therefore, every bush should be so pruned as to retain a fair proportion of last year's shoots, and leave a balanced head, regularly arranged, cutting away a corresponding number of the old rough wood-spurs of two or three eyes may be left where, at the base of the small shoots, fruit is evidently formed; but the *spurring* system is not so suitable to this species, as to the *currant*, red and white; with these, it cannot be too rigidly practiced, observing to cut out all crowding shoots, and shorten the new wood at the summit of each retained shoot, to three or four eyes.

Black currant trees require neither spurring nor topping, but only to have old and ill placed wood cut quite away. *Raspberries* ought to have every reatained rod shortened to a plump bud, just below the part where it takes a curve or bend; they then may be secured to stakes or trilles.

The first thing necessary to a garden, is, perfect drainage. Without drainage, unless the soil is very light, indeed, your garden will never prosper. Next to draining comes trenching—and trenching deeply—two or three spits deep, if the soil will admit. This, however, cannot of course be done in a year, but it may be done by degrees. A fresh surface is a matter of great importance in growing fine vegetables. Draining and trenching is even of more consequence than manuring, as those will find who try the experiment. Ashes—decayed vegetables left some time in a heap to rot—and mixed with a small quantity of lime—soap water of the wash-tub—scrapings of roads—scouring of ditches, &c., may all be made use of as manure. The different qualities of soil can be improved by mixing with sand, bog earth, &c. It will greatly contribute to the excellence of the crops, that the surface of the earth be often moved with the spade or hoe while the plants are growing."

We have copied part of the above from *The Mark Lane Express*, and in the future numbers of THE CULTIVATOR; we shall endeavour to give some information on the subject of Horticulture.

ON THE BREEDING OF CATTLE AND SHEEP.

The following letter on this subject we copy from *The Mark Lane Express*:—

"Many farmers consider as matter of indifference that on which the profitable nature of their occupation mainly depends.—The worse breed the female is, the more this will be the case when she is put to a well bred male. Now, it is known to graziers, that the attempt to fatten an animal who possesses no feeding propensities produces loss instead of profit. The feeding propensities descend from the sire, and therefore it is quite just to say, that a breeder of cattle or sheep, who considers it a matter of indifference what sort of a male animal he uses, does consider it a matter of indifference whether he gains profit or incur loss.

The first thing to be considered in the selection of a male, are the indications by which it may be possible to form a judgment as to his constitution. In all animals a wide chest indicates a strength of constitution, and there can be no doubt that this is the point of shape to which it is most material to any breeder to look, in the selection of either a bull or a ram. The animal also should exhibit great muscular power, or rather that his muscles should be large. This is a usual accompaniment of strength of constitution, but it likewise shows that there will be a good proportionate mixture of lean and fat in the meat produced by the animal; the muscles being that part of which the meat is lean. A thick neck is, both in bulls and rams, a proof of the muscles being large, and there can hardly be a greater fault in the shape of a male animal, of either sort, than his having a thin neck.

In a bull there ought to be a full muscle on each side of the back bone, just behind the top of the shoulder blades: he ought also to have the muscles on the outside of the thigh, and extending down nearly to the hough. It is sufficient to say, therefore, that no male animal is fit to be used at all as a sire, whose handling is not good, and that the more perfect his shape is the better.

A man can only look at the general qualities of females he possesses; and observe what are the faults most prevalent among them; these he should be particularly careful to avoid in the male which he intends to use. All that a man can do is to avoid putting a male and female together, whose imperfections are the same, thereby increasing the fault already existing in his stock. It need not be said that those who turn two or three rams of different shapes and qualities into a field with all their ewes, without attempting to make any selections among them, have no right to expect to be successful breeders, and if they do expect it, will certainly be disappointed.

There is one failing to which all breeders are liable, but to which the breeder of male animals, from the greater interest attached to his occupation is more particularly liable, and against which he ought most carefully to guard himself: this is, too great a partiality for animals bred by himself; and he ought frequently to use the stock belonging to other breeders, and fairly compare its merits with those of his own.

It will be advisable for the agricultural society, to circulate by all means in their power, all suggestions as shall appear to them likely to be useful to those engaged in the cultivation of the breed in this district; and although it may not be able to accomplish much beyond the influence of its own members, yet let it be able to trace to this patriotic body the introduction of those improvements, which will tend to raise the character of Flintshire agriculture.

The last paragraph of the above letter is entitled to the attention of Agricultural Societies in British America. Here good can be effected by them, by circulating useful information and suggestions among farmers, than by cattle shows, were they held once a month. The greatest utility of such societies is to instruct those who require it, in a good system of practical husbandry. It is true, those who they would be anxious to instruct, may not benefit by their instructions. However this may be, it is only when they have used their best endeavours to accomplish this most desirable good, that they will have done their duty, and expended the funds committed to their charge to the best advantage, for the community who have contributed them.

PAPER MANUFACTURING MACHINE.

The London Mercantile Journal gives a description of a new machine invented by Mr. Rawson, destined to produce a mighty and complete revolution in the paper trade. From this statement, it appears that the paper, after being made and dried on the steam cylinder now in use, and wound on the reel, is then taken to the sizing machine, and passed under the roller which works in the size trough; it then passes through metal rollers, which take off the superfluous quantity, and wound on a reel at the end. The operation of size parting is simply performed by winding the paper when thus sized on to another reel. This operation is extremely beneficial to the paper, and conducted with great rapidity, ten reams being size parted in as many minutes. The paper is then passed on to the drying machine, which consists of a series of open drums with fans inside, moving at various speed, and fanning upon every part of the paper as it passes warm air, which absorbs the moisture in the size, and leaves the gelatine firmly attached to the paper. A twelve months continual working has demonstrated beyond all question the intrinsic worth of this invention, founded as it is upon the soundest principles, and carried out by the most beautiful, accurate machinery. Manufacturers, the most influential in Great Britain, have thoroughly tested it, and have not scrupled to admit that the principle must shortly be universally adopted by those manufacturers of machine-made papers who are desirous to maintain their position in the market.

TOMATOES CURE SCOURS IN PIGS.—This plant, the tomato, is generally at first disliked by many,—but it nevertheless is much cultivated and admired. Last fall, we had a pig that was taken with the scours badly. We tried various remedies for it with but little effect. One day we threw over to it two or three tomatoes which was readily, and which we found gave it relief. By following this course a few days it was finally cured.—*Maine Farmer.*