

April 3, 1847.

JOHN SIMPSON, Esq., Queen's Printer.

SIR,—The very extensive publication of the ROYAL GAZETTE may be rendered conducive to the diffusion of information on the Culture of Hemp—for the encouragement of which, the Legislature, this Session, has granted so liberal a Bounty.

With this view, I send you an Essay on that subject by the Hon. Henry Clay, who, it appears, does not consider his resplendent talents to be misapplied when advancing the Agricultural Interests of his Country. I am, Sir, your obedient servant,

WILLIAM END.

**H E M P .**

AN ESSAY ON THE CULTURE OF HEMP, BY THE HON. H. CLAY.

This is a complete Treatise on the best manner of raising and preparing an article, which always commands cash sufficient to reward liberally the cultivator who proceeds correctly in obtaining this valuable product. The author of the essay is not less favourably known as a statesman than as a practical and scientific agriculturist, and his name will give it that weight and currency with American farmers which is due to its intrinsic excellence.

"The preparation of the ground for sowing the seed is by the plough and horses, until the clods are sufficiently pulverized or dissolved, and the surface of the field is rendered even and smooth. It should be as carefully prepared as if it were for flax. This most important point, too often neglected, cannot be attended to too much. Scarcely any other crop better rewards diligence and careful husbandry. Fall or winter ploughing is practised with advantage; it is indispensable in old meadows, or old pasture grounds, intended for producing Hemp.

"Plants for seed are ordinarily reared in a place distinct from that in which they are cultivated for the lint. In this respect, the usage is different from that which is understood to prevail in Europe. The seeds which are intended to reproduce seeds for the crop of the next year, are sowed in drills about four feet apart. When they are sufficiently grown to distinguish between the male and female stalks, the former are pulled and thrown away, and the latter are thinned, leaving the stocks separated seven or eight inches from each other. This operation is usually performed in the blooming season, when the sexual character of the plants is easily discernible; the male alone blossoming, and when agitated, throwing off farina, a yellow dust or flour, which falls and colors the ground, or any object that comes in contact with it. A few of the male plants had better be left, scattered through the drill, until the farina is completely discharged, for an obvious reason. Between the drills a plough is run sufficiently often to keep the ground free from weeds and grass; and between the stalks in each drill the hoe is employed for the same object. The seed plants are generally cut after the first smart frost, between the 25th September and the middle of October, and carried to a barn or stack-yard, where the seeds are easily detached by the common flail. They should be gathered after a slight, but before a severe frost; and as they fall out very easily, it is advisable to haul the plants on a sled, and if convenient, when they are wet. If transported on a cart or wagon, a sheet should be spread to catch the seed as they shatter out. After the seeds are separated, the stalks which bore them being too large, coarse and harsh, to produce lint, are usually thrown away; they may be profitably employed in making charcoal for the use of powder-mills. In Europe, where the male and female plants are promiscuously grown together in the same field, both for seeds and for lint, the male stalks are first gathered, and the female suffered to remain growing until the seeds are ripe, when they are also gathered, the seed secured and lint obtained, after the rotting, from both descriptions.

"After the seeds are threshed out, it is advisable to spread them on a floor, to cure properly and prevent their rotting, before they are finally put away for use the next spring. Seeds are not generally used unless they were secured the fall previous to their being sown, as it is believed they will not vegetate if older; but it has been ascertained that when they are properly cured and kept dry, they will come up after the first year. It is important to prevent them from heating, which destroys the vegetating property, and for that purpose they should be thinly spread on a sheltered floor.

"The seeds, whether to reproduce seeds only, or the lint, are sowed about the same time. Opinions vary as to the best period. It depends a good deal upon the season. The plant is very tender when it first shoots up, and is affected by frost. Some have sowed as early as the 1st of April, but it is generally agreed, that all the month of May, and about the 10th of it especially, is the most favourable time. An experienced and successful Hemp grower in the neighbourhood of Lexington, being asked the best time to sow Hemp, answered, 'immediately before a rain.' And undoubtedly it is very fortunate to have a moderate rain directly after sowing.

"When the object is to make a crop of Hemp, the seeds are sown broad-cast. The usual quantity is a bushel and a half to the acre; but here again the farmers differ, some using two bushels or even two bushels and a half. Much depends on the strength and fertility of the soil, and the care with which it has been prepared, as well as the season. To these causes may be ascribed the diversity of opinion and practice. The ground can only sustain and nourish a certain quantity of plants; and if that limit be passed, the surplus will be smothered in the growth. When the seeds are sown, they are ploughed or harrowed in; ploughing is best in old ground, as it

avoids the injurious effect of a beating rain, and the consequent baking of the earth. It would be also beneficial subsequently to roll the ground with a heavy roller.

"After the seeds are sown, the labors of the cultivator are suspended until the plants are ripe and in a state to be gathered; every thing in the intermediate time being left to the operations of nature. If the season be favourable until the plants are sufficiently high to shade the ground, (which they will do in a few weeks, at six or eight inches height,) there is strong probability of a good crop. When they attain that height, but few articles sustain the effect of bad seasons better than Hemp.

"It is generally ripe and ready to be gathered about the middle of August, varying according to the time of sowing. Some sow at different periods, in order that the crop may not all ripen at the same time, and that a press of labor in rearing it may be thus avoided. The maturity of the plant is determined by the evaporation of the farina, already noticed, and the leaves of the plant exhibiting a yellowish hue; it is then generally supposed to be ripe, but it is safest to wait a few days longer. Very little attentive observation will enable any one to judge when it is fully ripe. In that respect it is a very accommodating crop, for if gathered a little too soon, the lint is not materially injured, and it will wait the leisure of the farmer some ten days or a fortnight after it is entirely ripe.

"Two modes of gathering the plants are practised, one by pulling them up by the roots, an easy operation with an able-bodied man, and the other by cutting them about two inches (the nearer the better) above the surface of the ground. From a quarter to a third of an acre is the common task of an average laborer, whether the one or the other mode is practised. The objections to pulling are, that the plants with their roots remaining connected with them, are not afterwards so easily handled in the several operations which they must undergo; that all parts of the plant do not rot equally and alike, when exposed to the dew and rain; and, finally, that before you put them to the brake, when the root should be separated from the stalk, the root drags off with it some of the lint. The objection to cutting is, that you lose two or three inches of the best part of the plant nearest the root. Pulling, being the most ancient method, is most generally practised. I prefer, upon the whole, cutting; and I believe the number who prefer it is yearly increasing. When pulled, it is done with the hand, which is better for the protection of an old leather glove. The laborer catches twenty or thirty plants together, with both hands, and by a sudden jerk draws them without much difficulty. The operation of cutting is performed with a knife, often made out of an old scythe, resembling a sickle, though not so long but broader. This knife is applied much in the same way as the sickle, except that the laborer stoops more.

"Whether pulled or cut, the plants are carefully laid on the ground, the evener the better, to cure; which they do in two or three days, in dry weather. A light rain falling on them whilst lying down is thought by some to be beneficial, inasmuch as the leaves, of which they should be deprived, may be easier shaken off or detached. When cured, the plants are set up in the field in which they were produced, in shocks of convenient size, the roots or butt ends resting on the ground, and the tops united above by a band made of the plants themselves. Previous to putting them up in shocks, most cultivators tie the plants in small hand bundles of such a size as that each can be conveniently held in one hand. Before the shocks are formed, the leaves of the plants should be rapidly knocked off with a rough paddle or hooked stick. Some suffer the plants to remain in these shocks until the plants are spread down to be rotted. Others, again, collect the shocks together as soon as they can command leisure, (and it is clearly the best,) and form them into stacks. A few farmers permit these stacks to remain over a whole year, before the plants are exposed to be rotted. By remaining that period in stalks, the plants go through a sweat, or some other process, that improves very much the appearance, and, I believe, the quality of the lint, and this improvement fully compensates the loss of time in bringing it to market. The lint has a soft texture and a lively hue, resembling water-rotted hemp; and I once sold a box of it in the Baltimore market at the price of Russia hemp. In every other respect the plants are treated as if they were not kept over a year.

The method of dew-rotting is that which is generally practised in Kentucky. The lint so spread is not so good for many purposes, and especially for rigging and ships, as when the plants have been rotted by immersion in water, or, as it is generally termed, water-rotted. The greater value, and consequently higher price of the article prepared in the latter way, has induced more and more of our farmers every year to adopt it; and if that prejudice were subdued, which every American production unfortunately encounters when it is first introduced, and comes in contact with a rival European commodity, I think it probable that in a few years we should be able to dispense altogether with foreign hemp. The obstacles which prevent the general practice of water-rotting are, the want of water at the best season for the operation, which is the month of September; a repugnance to the change of an old habit, and a persuasion which has some foundation, that handling the plants after their submersion in water during that month is injurious to health. The first and last of these obstacles would be removed by water-rotting early in the winter, or in the spring. The only difference in the operation, performed at those seasons and in the month of September, would be that the plants would have to remain longer in soak before they were sufficiently rotted.