

HORTICULTURE AND AGRICULTURE.

From "Transactions of the Botanical and Horticultural Society of the Counties of Durham, Northumberland, and Newcastle upon Tyne."

CANKER IN TREES.

"Much has been said and written on the disease called canker in apple trees; it generally seizes old varieties and great bearers; but the soil, and especially the subsoil, have often a great share in producing it, and some varieties have a greater tendency to it than others, as Sir Walter Blackett's Favourite, the Royal Russet, &c. &c. Mr. Knight observes that this disease, as well as the wearing out of the old varieties, arises from the age of the variety; for, of course, in all cases of propagation by grafting or budding, the scion or the bud is of the same age as the original plant. Yet, as it is engrafted or budded on a vigorous seedling stock, I imagine that its growth is by this means in some degree renewed. And I think it has been clearly proved by a very ingenious experiment made by a gentleman in Herefordshire, who, having a very old Golden Pippin apple tree which was in a dying state, planted around it several young seedling crabs, and when they had established themselves, engrafted or inarched them into the trunk of the old tree; the consequence was, that in the course of a year or two, the old tree became nearly as healthy as ever it had been, from the vigor that was infused into it by the sap of the young crabs that had been introduced into it. And yet I am strongly induced to think that the scion, in some cases at least, has a very great effect on the stock on which it is placed, as in the case of engrafting an apple scion, or that of any of the varieties of crab on the same kind of stock. The apple will have a much more fibrous, and a smaller root, while the crab will have a large, strong, wiry root, which, after standing three or four years, will be far more difficult to take up than that of the apple. There is another serious fault, which it may not be amiss to mention here, and which confirms me in my opinion of the stock being affected by the scion, and that is introduced into it. There is a checked leaved variety of the English Laburnum, a bud even of which being inserted in the bark of the common laburnum, whether the bud is or not, the laburnum invariably becomes checked in its leaves like the bud. If the checked or striped leaves of the plant arise, as I think is generally admitted, from a disease, this is justly to be considered as virulent a disorder in the vegetable world as the small pox is in the human race, and this operation may very truly be said to be inoculation."

THE METHOD OF DESTROYING THE HESSIAN FLY.

As the wheat crop some seasons suffer considerable damage from the destructive effects of this insect, we publish the following directions for destroying it. The Hessian Fly deposits its eggs on the ear before it is reaped; the egg is so small as to be invisible to the naked eye, but is very distinctly seen with a microscope; it is one grain of wheat will be observed to contain several of these eggs on it. They are not fed with any nutritious substance introduced around them by the parent fly, but they are held so firmly on the surface, that to be easily removed by the motion of the threshing, &c. Shortly after the seeds

begin to germinate in the soil, the general heat of the season brings the young fly from its egg in the form of a very small maggot (as is the case with all insects); these little maggots deposit themselves at the root of the stalk to the seed of which the eggs had been attached between the stem and the lowest blade or leaf, where they may be discovered during the month of May and beginning of June quietly reposing; here they remain until the warmth of the season brings them to maturity, when they commence eating the substance to which they have been attached. It is not until this period that their destructive effects are visible, by the wheat becoming withered and blighted. This accounts for the fact that wheat, which is attacked by this destructive insect, presents a healthy appearance in the month of June, the period at which the embryo-fly begins to use food.

Now it is evident that if the eggs of this fly can be destroyed on the seed wheat, by any process that will not also destroy the vegetable quality of the grain, the ruinous effects will be avoided.—This can be done by the following very simple process.—Soak the seed wheat in water for twelve hours, spread it out on the barn floor, so as to allow the superabundant water to escape: then take fresh slacked lime and mix it among the wheat in quantity sufficient to have every grain covered with the lime, taking care to stir the wheat well with a shovel, so that no particle may escape coming in full contact with the lime, which, when thus applied, will in a short time destroy the eggs, and consequently preserve the grain from destruction."

Our correspondent assures us that the eggs, which before the application of the lime appears, clear and transparent, afterwards becomes opaque, and puts on the appearance of an added egg. The efficacy of the above remedy has been established by several experiments, one of which we will here relate.—What is supposed to be the best method of sowing is taken, one half of the quantity treated with lime, and the other half was sown in the same soil with the prepared, in alternate drills; the result was that every stalk from the prepared seed came to maturity and was productive, whilst the alternate drills which had been sown with unprepared seed, were almost totally destroyed.

Canadian Courier.

FARMER'S WORK FOR AUGUST.

Mowing Ground.—There are but few objects connected with the management of a farm of more importance than that of mowing good crops of rye-grass after mow, or second crops of grass. If your mowing land is in such good condition that you can hope to obtain a second crop, be careful to keep it from the intrusion of cattle, sheep and horses, for rye-grass in the winter and spring is very valuable for ewes, young lambs, cows and calves, &c.

A writer in *Hunter's Geographical Essays*, recommends manuring mowing ground immediately after having, and especially if a second crop is expected. In such case, some part of the fertilizing qualities of the manure will be lost by its being exposed to a burning sun, but the manure, when first applied, will protect the roots of the grass, and as soon as the grass has grown a little its tops will protect the manure: so that on the whole this application may not be unprofitable. Composts composed in part of loam or rich earth, are supposed to be better for manuring grass land than unmixed stable or barn yard manure; because such composts are less liable to be deprived of their fertilizing

qualities by the sun, air and violent rains. Whenever manure of any kind is applied to grass land it should be spread as evenly as possible, and a bush harrow should be drawn over the surface, which will break the small lumps remaining in the manure, and bring it closer to the roots of the grass. Or as Dr. Deane directed, when the land becomes bound or mossy, so as to diminish the growth of the grass, if it be not convenient for the farmer to use a roller, it should be cut or scarified by a spiked roller; or if the farmer does not possess this, by a heavy loaded harrow, when the ground is softened by rains, or by coming out of the frost. Then dressed with some short rotten manure, suited to the soil; bushed, and a roller passed over it. There is no danger of destroying the roots of the grass by this operation. Though they are broken they will be speedily renewed, and the effect will be more plentifully formed, and the crops will rise with renewed vigour. N. E. F.

Hay Making.—If a mowing lot is to be cut twice in a season, the first crop ought to be mowed earlier than where it is cut but once, in order that the roots may recover immediately, and be ready for vegetation afresh. Where the grass is cut later, the vegetation of the roots stops for some time. The grass, however, which is thus cut early will not be so heavy as that which is cut later, as will shrink more in drying; but this will not be so much exhausted, and will afford a larger crop the next time of cutting, or the next summer if mowed but once in a season. Judiciously in the cutting of grass crops, for the purpose of being made into hay, it is necessary that they be in the most suitable state of growth and maturity, for according to the best practice, the hay should be cut at too early a period, nor suffered to stand too long; as in the former case there will be considerable loss in the drying from the produce being in so soft and green a condition, and in the latter from a large proportion of the nourishing properties being expended. Grass when mown before it comes in full flower, while the rich saccharine juice is in part retained at the joints of the flower stems, is in the most proper condition for being cut down, as at that period it must contain the largest proportion of nutritious materials, but which then begin to be absorbed, and taken up in proportion as the flowers expand and the seed ripens, so as to constitute the meal or starch of the seed lobes, and is either dispersed upon the land or fed upon by birds; the grass stems with their leaves being left in a similar situation to that of the straw of ripened grain. But there are other circumstances, besides those of ripeness, to be attended to in determining the period of cutting crops of grass, some cases, when they are thick up ground, the bottom parts become of a colour before the flowering fully take under such circumstances, it will of the most advisable practice to mow a weather will possibly admit; for selected there is great danger of any rate of its acquiring a disease and becoming of little value. very tall, as is often the case it is liable to fall down and lose some effects are produced.

The same writer, under the above, observes that the best method of making hay is a process somewhat of making hay from natura herbage tribe ought to be formed and indeed be formed and indeed be