

THE FARMER.

At the commencement of a new year no more important subject can be recommended to the farmer's attention than the subject of *mildew* and its prevention. What remedies, let him ask, may be successfully applied to check the devastating growth of corn mildew? Although its botanical character is now so well known, the remedies hitherto suggested have been principally conjectural. Mr Knight, who was a most careful and experienced observer, expressed his persuasion that when fogs came on after a very dry time, the wheat plant is more than ordinarily subject to this blight. Hence the obvious method of guarding against mildew in places particularly subject to its influence, is to endeavour to procure the earliest varieties which may arrive at maturity before the autumnal fogs extensively prevail. More observations are also wanted as to the effects of soil on the growth of this fungus, and especially whether heavy soils are really more favourable to it than light ones. There is as yet little more than surmise on these points, which is always unsatisfactory. Nor is it well decided whether spring wheats are less liable to it than winter wheats, though an opinion that such is the case widely prevails.

The certainty that all the gramineous tribes are liable to mildew renders it very doubtful whether the extermination of this evil can ever be expected; but unquestionably much may be done towards checking its injurious diffusion to any alarming extent. The proper method is to consider what remedies may be safely recommended, and to try them carefully. The following are undoubtedly worthy of attention :

1. An endeavour, as inexpensively as possible, to change the texture of soils by mixture, where mildew has long obstinately prevailed. The farmer should learn that the mechanical state of his land is just as important as the chemical. Glass, which refuses to part with all its alkalis when in a solid state, if brought into contact with water, parts with them easily when moistened after being finely pounded in a mortar. Any person may convince himself of this fact by laying a lump of wetted glass on turmeric paper. No result follows. Now reduce the same piece of glass to fine powder, and wet it; the turmeric paper turns red, indicating that an alkali has been set free. Hence the fine mechanical division of the soil effected by judicious mixture of more friable materials, may produce great results in giving out organic compounds whose tendency is to strengthen it against the attacks of disease. This is only one instance out of thousands, to show the importance of science to a class long entirely neglectful of its advantages, but now becoming more aware of them.

2. A careful notice of many places where mildew has prevailed will at once satisfy the observer that they have been so situated as to be sub-

ject to the evils of too much shade, or want of free circulation of air. Letting in more air and light in these localities, by obvious means, would be, in such cases, the best mode of proceeding.

3. There is no doubt that overluxuriance in early growth is favourable to the mildew. The intelligent farmer will know best how to check this, whether by feeding it down with sheep for a few hours in the day-time, or other methods. This must be a matter of experience, keeping only the design in view.

4. The desirableness of growing early varieties in places subject to mildew. The reasons have already been considered.

5. Another plan worthy of being adverted to, is the avoidance of manuring immediately before setting the seed.

6. Attention should also be given to hoeing the wheat crops in the early stages of growth, and taking great care to free them from all weeds. Mildew will seldom prevail to any extent where this precaution is taken; but wherever there are many weeds on the land, the straw will be generally found more or less affected by it.

Wherever the farming is of the best kind, where these precautions are taken, and where drainage is good, this fungus will not be found in any alarming degree. Just as the clean skin of animals is a defence against noxious living parasites, so, by an analogous method, the soil will be rendered free from the destructive fungi under our present notice. Improved domestic habits in our peasantry are well known as tending to check the spread of epidemic diseases; and in the same way, a better system of cultivation will avert disease from our corn fields, while there is given thereby increased opportunity for the employment of the poor. Mildew was once more prevalent than it is at present; and doubtless its diminution is in a great measure to be ascribed to a better husbandry.

CARROTS.—This vegetable was sown to a greater extent last spring in Lancashire than had been done in previous years, so that they will be prepared with them as a substitute for the potatoes, in case there should be another failure, but which proved not to be the case; and therefore it has made carrots more plentiful, which are now selling at from 2s. 6d. to 3s. 4d. per load of 240lbs.; and, notwithstanding this low price, they will still pay well for their cultivation, as the cost of the seed is only about one penny per load. They are found excellent for milch cows, and are far superior either to turnips or mangel wurzel for making the cows yield more milk and butter of a much richer quality and colour, which is of importance at this season of the year, and will be a strong inducement to the cow-keepers to sow carrots instead of turnips the coming season, as turnips at the present time are not saleable, owing to the large stock in the hands of the growers, and for the reason above stated.