

Agriculture.

Failure in the Growth of Seeds.

The Royal Agricultural Society of England have received from the Consulting Botanist the following report:—

A large number of samples of seeds have been examined by me during the past few months. My attention has been specially called to the seeds for permanent pasture. The result of careful experiments with numerous samples, and the dissection of a large series of seeds, have shown that great disregard is paid, at the time of collecting, as to whether the seeds are ripe. In all the cases in which the seeds attain a considerable size—as in the rye grasses, or even in Timothy grass—the merchant, as well as the ultimate buyer, can easily detect the presence of any considerable quantity of imperfect or undeveloped seeds. But in the grasses with small seeds, or with seeds that are small relatively to the glumes or chaff which surround them, it is more difficult to determine whether samples are fully ripe. The foreign grower—for our grass seeds are, with few exceptions, imported—perhaps unwittingly, collects them while they are still unripe. The result is, that a large percentage never germinate of such grasses as meadow foxtail, the meadow grasses, sweet vernal grass, &c. In some mixtures of permanent grasses I have found that not a single seed of *Poa trivialis* and *Alopecurus pratensis* has germinated, and on examination I have found that this was mainly due to their being gathered before they were ripe. In many cases they had been gathered before the flower had appeared, and the unexpanded stamens were still inclosed in the blossom; in others the seed had just begun to form.

It is difficult to suggest an efficient remedy for this serious evil. The persistent refusal of seeds which are found to be almost worthless from too early harvesting would no doubt in time tell upon the grower through the merchant and importers, though this is necessarily a somewhat roundabout way to reach the source of the evil.

But failure in growth is not always due to un-ripened seed. I have recently examined a sample of black oats, of which a member had sown four bushels to the acre, and expected a thick crop. The sample consisted of large and fully ripened grains, but only 32 per cent. germinated. In the remainder the embryo was dead, most probably because the seed was old, though careless harvesting of the best crops may speedily destroy the life of the seed.

Several cases of injury to cattle through the presence of noxious substances in their food, such as ergot, poisonous weeds and yew twigs, have received my attention.

The Hop Prospect.

The *Utica Herald*, in speaking of the much-talked-of decrease in the hop crop for 1879, says:

In making the following estimate, we have been guided partly by what we have seen for ourselves, and partly by what we hear from persons residing in different parts of the country. We believe, taking all things into consideration, the decrease of acreage, the poor growth of the vine, and the very general slackness in cultivation, that 20 per cent. is a moderate estimate of the amount by which the hop crop of 1879 will fall below that of 1878. The damage is already done, and no amount of care will develop a crop in those yards which have already been so shamefully neglected. But it will be worth the while for those who have yards that are in fair condition to watch them closely, and give them the best of care. Even then it would be foolish to look for high prices, but it seems quite possible that good hops may bring a living profit to the grower next fall, and business principles would dictate that those who have fairly good yards should cultivate them well.

DEEP PLOWING.—Those who have plowed their grounds deeply this spring may have a fair yield of corn, notwithstanding the severe drouth, if they keep the plows and cultivators running as constantly as they ought to till the corn is laid by. But those who have plowed shallow cannot hope for half a crop, unless we have frequent and copious showers within a short time. Every farmer ought to plow an inch or two deeper every year. The deeper the soil, the better able it is to resist drouth.

Do Not Mow too Close.

There was true economy in the advice of the farmer who recommended that the lower joint of grass be left in the field for the old brindle cow, rather than be cut and cured for her. He was one of the numerous army of mowers who had learned there is nothing gained by cutting too close.

The testimony with respect to the height from the ground at which it is best to cut grass is conflicting, and tends to confuse and oftentimes mislead a novice in the hay-field. Cultivators vary in practice from one-half inch, or as close as possible, to four inches. The general tendency is, however, to cut close, and many fine meadows have been seriously injured therefrom.

Close observation has taught that timothy cannot be cut low, in dry weather especially, without inflicting injury. All attempts at close shaving the sward should be avoided. Many of our most successful farmers cut timothy nearly or quite four inches from the ground. Others, in gauging mowing machines for this grass, take care to run them so high that it will not be cut below the second joint above the tuber.

Close mowing of upland meadows ought also to be avoided, as the action of the hot sun and dry weather following the harvest affects the roots of the grass unfavorably when left without some protection. On the other hand, low, wet mowing grounds will bear cutting as close as possible; these are benefited by the influences which would dry and burn up an upland meadow. Again, where the practice is followed of top-dressing the meadow immediately after taking off the grass, the mowing may be done low, and a smooth surface left to cut over the next time.

Generally speaking, grasses cut two inches high will start much quicker and thrive better than when shaved close to the ground; the finer grasses, as a rule, when the season is not a very dry one, can be cut lower with safety than coarser sorts.—[*N. Y. World*.

A Promising Crop Prospect.

The past four years have been remarkable, not only for comparatively large yields of nearly all crops, but for a noteworthy increase of the area of land in cultivation. So far as can be judged by the extent of seeding, germination and early growth of the present season, another fruitful year is to be added to the series. There has been a slight increase of breadth of wheat, the surface devoted to corn west of the Mississippi has been greatly enlarged, and a majority of the Cotton States have added to their acres of the world's great textile. There are symptoms of an agricultural revival in the East, and even the staple bread-crops are demanding more attention. There appears to be no material extension of crop areas in the Middle States, but a tendency to greater thoroughness in culture. The much-talked-of diversion from cotton to grain and grasses in the South is exceedingly slow of accomplishment; while the acreage of corn and wheat increases, that of cotton advances at a pace only a trifle slower. Everybody wants everybody else to "diversify." Even in the wheat-growing belt of Texas the outcome of the past year has not encouraged further rapid extension. In Nebraska and Dakota the enlargement of grain fields is most noticeable this year, and next in Minnesota and Iowa. Kansas has a million and three-quarters acres in wheat, which is little more than the last season.

The starting of winter grain was slow. Well covered by snow in the Northern belt, there was little injury by freezing, an exemption not so fully shared in Maryland, Virginia and California. A dry fall in the Middle States was unfavorable for adequate root growth, rendering the early spring prospect still more unpropitious, but improvement since has been generally satisfactory. In Texas the spring was early but dry, and the drouth in April became very general and serious, and continued till about the 22nd, when drenching rains put an end to suspense, assuring vigorous growth of grass and corn and cotton, while grain crops were too far advanced for more than partial recuperation. There was also an injurious drouth in the Ohio Valley, and lack of April rains throughout the West. The seasonable rains of the last few weeks have dissipated the incipient gloom and inspired strong expectation of a rich harvest of all kinds of grain.—[*N. Y. Tribune*.

Celery for Nervousness.

A writer familiar with the virtues of celery as a nerve tonic says: "I have known many men and women, who, for various causes, had become so much affected by nervousness that when they stretched out their hands they shook like aspen leaves on a windy day, and by a moderate daily use of the blanched footstalks of celery as a salad they became as strong and steady in limbs as other people. I have known others so nervous that the least annoyance put them in a state of agitation, and they were in constant perplexity and fear, who were also effectually cured by a moderate daily use of blanched celery as a salad at a meal time. I have known others to be cured of the palpitation of the heart. Everybody engaged in labour weakening to the nerves should use celery in the season and onions in its stead when not in season." An extract of celery makes a nourishing drink, and is excellent for people who have lost nerve strength by over indulgence in alcoholic liquor. Celery is also excellent for canary birds; they are little animals, with very delicate nerves, easily frightened, and therefore they need such a remedy very much, and the relish with which they take it is a proof that their instinct guides them to eat what is good for them.

Pruning in Due Season.

What is the season for pruning, is a disputed question. A writer in the *New York World* reasons on the subject as follows:—

"When pruning is delayed until the season's growth is nearly completed, as in July and August, the removal of a considerable portion of the leaves after the resources of the tree have been largely exhausted by the season's growth destroys the balance existing between the roots and branches, and the result is that the growth is checked and the vitality of the tree reduced. On the contrary, cutting a tree back or pruning it between the time growth ceases in the fall and the time it starts in the spring tends to increase the vigor of the tree, for the reason that there is a constant deposit of plant food made in the different parts of the tree during the cessation of growth. The sap is seldom entirely inactive during this season. If, therefore, the tree is deprived of a part of its branches at this time the same amount of matter that would have been distributed among the many branches is deposited in these that are left. The consequence is the buds push with great vigor and in many cases buds push out and produce water sprouts. Therefore pruning during the fall, winter or early spring increases the vigor and enlarges the production of wood in the tree, while pruning in late summer has the opposite effect of checking growth and producing fruitfulness. In most cases of pruning, however, neither of these ends is sought; the object is to remove surplus branches without either diminishing or increasing the vigor of the tree, therefore the wisdom of choosing between these extremes; a good time being, I think, about May or early June."

While ten men watch for chances, one may make chances; while ten men wait for something to turn up, one succeeds, and is called a man of luck, the favorite of fortune. There is no luck like pluck, and fortune most favors those who are indifferent to fortune.

Forty head of cattle at Shelburne Falls, Mass., are reported as having given signs of pleuro-pneumonia. Dr. Cressy was sent to examine them. Last week we stated that a car load of Short-horn bulls passed through Chicago, from Shelburne, Mass., en route for Montana. We have heretofore advised Western men to have nothing to do with Eastern stock unless after sufficient isolation they were found healthy. If Montana breeders should happen to have imported pleuro-pneumonia with their bulls, they will pay dearly for their improved stock.—[*Prairie Farmer*.

Tobacco speedily exhausts the soil in which it grows, as may be judged from the large amount of ash which it contains. Every ton of perfectly dry leaves carries off from the soil from four to five hundredweight of mineral matter—that is, as much as is contained in fourteen tons of the grain of wheat.