AGRICULTURAL.

[From the New England Farmer.]

FARMER'S WORK.

Grass for hay should not be cut too early, or before it has obtained its growth; for if removed too soon it will shrink very much when drying. Agriculturists, however, do not agree relative to the exact period in the growth of grass for hay, when it is best to cut it. Sir John Sinclair asserts that "in all cases clover ought to be mown *before the seed is formed*, that the full juice and nourishment of the plant may be retained in the hay." But in "Memoirs of the New York Board of Agriculture," Vol 11, p. 30, it is asserted that all the grasses are most nutritious if not mowed till the seed is fully grown. It should not be entirely ripened however. The Farmers' Assistant also asserts that the best time for cutting herds grass [timothy] where but one crop is cut in the season, is when the seeds of the grass are fully formed, but before they have become fully ripe; but as farmers cannot all cut their hay in a day or two, it is necessary that they *should begin before* that *time that* they may not end too long after it. The same time is also proper for cutting clover; or rather when a part of the heads begin to turn brown. Fowl meadow or herds grass may be cut much later without being hurt by long standing.

If it is proposed to mow a piece of grass land twice in a season, the first crop should be cut earlier than when it is mowed but once, not only to give a longer time for the growth of the second crop, but to prevent the roots of the grass from being too much exhausted in producing the first crop when it is proposed to save the seeds of red clover it is particularly important to cut the first crop early, so that *the second from which the seeds* are usually procured may be the sooner ready for cutting in autumn.

Some regard should be had to the weather, in cutting grass for hay, especially if the grass is clover, which requires much attention and favorable circumstances to fit for the mow or stack. If the weather is wet, or the season presents what farmers call *a catching spell*, clover, we are told, will stand a fortnight without sustaining any material injury by the shedding of the leaf or the blossom; for the same weather which renders it improper to mow this grass continues it in a growing state, and prevents the bloom from withering or disappearing.

It has been stated by good practical cultivators that if grass when mown is carefully turned every day, it will injure but little. Turning it every day prevents its becoming mouldy and of little value.

There are various modes of making hay described by authors, and practised by cultivators. The following is perhaps as correct as any. Let the farmer be at his mowing early in the morning, cut down as much as possible by nine or ten o'clock, by which time the dew will generally be off; then spread the mowed grass evenly, and about twelve turn it over where it lies thick; in the afternoon rake it into winrows, shake it up lightly that it may be the better exposed to the air; towards sundown make it into neat small cocks, and let it remain so a day or two. If it be not then sufficiently dry, shake it out again on a small space of ground, and turn it over till it is dried, then cock it again, and as soon afterwards as possible draw it in.

"But in order to save much trouble in drying hay, the application of from four to six quarts of salt to the ton is recommended. It is found that hay thus salted, can be well saved in a much better state, and at the same time the benefit which the hay derives from the salt is more than fourfold its value."

Dr Dean observed as follows: "Were it not for the labor and cost, a good way of hay-making would be for the hay-maker to follow at the heels of the mower, at least as soon as the dew is off, and spread the swaths evenly; make it up into cocks before night, open the hay and turn it the next day; and so on till it be sufficiently dried, doubling the cocks if signs of rain appear. It will not commonly take more than two or three days to dry it, unless it be very green or uncommonly thick and rank."

The practice of the best English, Flemish and French farmers is to expose hay as little as possible to the sun. It is carried in dry, but preserves its green color; and hay of two or three years old appears so bright that you would scarcely conceive it to be cured. Yet they preserve it for years, and value it the more for its age. In Scotland the best managers disapprove of spreading out clover or rye grass hay, the more the swarth is kept unbroken, the hay is the greener and more fragrant.

There is, however, difference of opinion on the subject of curing clover in the swarth without spreading. The Albany Cultivator recommends substantially the Scotch method, or the curing of clover hay without spreading the swarth. But a writer for the N. E. Farmer, with the signature W. B. whom we know to be a judicious practical farmer, objects to attempting to cure clover in the swarth or in cocks. He says, "all directions for making *hay in this country without the sun, are worse* than useless. Clover, like other hay, to be good for anything must be dried in the sun: care should be taken not to waste the leaves, and much more not to waste the stalks. Cut it when rank, as soon as half of it is headed out; give it nearly three days of sunny weather, and depend upon it, your cattle will eat both stalk and leaf, and fatten on it."

Germination of Seeds.—There is a complaint *frequently made by those who purchase* their garden and other seeds, that they do not grow; and hence it is inferred that unripe and inferior seeds are put up to increase the sales, and consequently the profits of the gardener and the seedsman. This inference may in some cases possibly be correct; but that it is so in all cases where seeds do not grow, is evidently wrong; for no fact is more clearly ascertained, than that good seeds do not always germinate. Two things are indispensable to *the germination of seeds*—heat and moisture, if either of these is absent, the process must be suspended. It follows as a necessary consequence, that seeds planted so deep that the rays of the sun cannot influence them, must remain in a state unfavourable to their growth; and if *planted in a soil where there is warmth but no* moisture, the same result will ensue. Some seeds have a coating so hard that they rarely grow under ordinary circumstances. The man who should condemn his locust seed because they did not grow, when planted without preparation, would only manifest his ignorance. by pouring boiling water upon them, allowing them to stand 48 hours, he would find that most of them would germinate. The germination of beet seed is much accelerated and rendered more certain by the application of water nearly at the scalding heat, and allowing them to remain in it for twelve hours.

The application of the above principle may assist J. D. in determining the cause of his failure in germinating the mangel wurtzel. Our experience in the cultivation of this root has not been very extensive, but perfectly satisfactory, and we have found no more difficulty than in growing the common beet. In sowing it we have rarely had a seed fail, and we hitherto purchased of the seedsmen. In all possible cases however, farmers should raise their own seeds, they can then chose their favorite varieties, and be certain of their kind and quality. The saving of seeds requires but little time or labor, and frequently prevents serious trouble and loss.—*Gen Farm*

Winter Wheat.—The season is now so far advanced that a tolerable conjecture may be formed as to the state of the wheat crop, and the effect produced upon it by the past winter. From our limited observation, and *from what we have been able to learn from* various sources, it appears that in what is called Western New York, which is emphatically the wheat district of the state, the wheat has suffered to an extent quite equal to what was first apprehended. The western counties extending to Wayne and Seneca, may expect a medium crop—in Wayne, Seneca and Cayuga counties there is much wheat that promises well, but as a whole, it has been a good deal thinned, and many pieces entirely destroyed—while *farther east, in* Onondaga, Oswego, Madison and Oneida counties, the wheat has suffered still more extensively. In the most favorable sections of Onondaga, where the crops have rarely if ever failed, but few first rate pieces are to be seen; while in the less favorable sections *hundreds of acres have been* totally destroyed, and have been ploughed up for spring crops.—The same remarks, but in a greater extent, are applicable to Madison and Oneida.

Wheat in our winters suffers from two causes, extra warmth and extra cold. The first is generally produced by a covering of snow to such a depth as to exclude the action of the atmosphere on the earth, take the frost from the ground, and by thus producing an unnatural and premature effort at vegetation, causes the death of such imperfectly rooted plants as wheat and rye; but which under favorable circumstances remain with their leaves green through the winter, and are consequently ready *for the first exciting impulses of vegetable* life. Such plants differ materially from those in which the leaf perishes, and only the root retains its vegetative power, in wheat this power in the leaf is only suspended, it is not destroyed and approaches to the suspended animation sometimes observed in animals, and occasionally in man. If the vital powers of the plant are called into exercise before the means of renewing the waste caused by the effort can be provided, the plant so excited must perish; and when wheat is smothered by the great body of snow, as it has been the past winter, precisely this effect is produced. Excluded from the external cold by the covering of snow, the internal heat of the earth, soon banishes the frost, the root of the plant rouses from its torpor, *but the leaf is in an exhausted* receiver, it cannot act, the revivifying influence of the air does not reach it, and leaf and root must consequently perish. When the snow vanishes the leaf looks green, but the sun soon makes it white and dry. The other way in which wheat is killed in the winter, is by being frozen out of the earth.—Gravelly or sandy soils rarely or never suffer in this way, as the porous earth allows the water to escape and prevents the adhesion of *the surface, without which the wheat plant* cannot be lifted out of the ground. Almost every one has noticed the beautiful columns of frost work, which in low wet spots are formed by the freezing of the water, and gradually lift the loose surface to the height of several inches, where the clay in the soil is in sufficient quantities, an adhesion of the particles takes place; and the surface, with the roots of wheat, rye or clover in it, is gradually lifted