Grass and Hay.

This is a subject that can never be unseasonable. It concerns us not merely in mowing time. The preparation of the land for seeding—the varieties of grasses—the method and time of seeding—the top-dressing and care of our hay-fields—all require attention. From the *New England Farmer* we take the following extracts on grass and hay :

We find little attention paid to the cultivation of grasses previous to the 17th century. Clover, as a cultivated plant, was not introduced into England till about 1640, and the white Dutch clover till 1700. We learn that in 1680, in England, was the beginning of systematic culture by the introduction of the perennial rye grass, and for many years this and clover alone were the only varieties cultivated, and not until the introduction of herdsgrass and orchard grass from this country, did grass culture take a grand start in agriculture. In our own country, the culture properly began by the disseminating of the seed in 1760 of timothy, herdsgrass (now known by either name), by an English farmer in Philadelphia; and in 1764 by the introduction of orchard grass in Virginia. Even the knowledge of the different varieties of grasses was then so meagre that the farmers in the colonial times would feed down all the ripening grasses so that kind nature could not replenish the barren fields by self-sowings, but as the grand science of agriculture began to be developed, we find the finer and more nutritious varieties began to be cultivated.

CULTIVATION.

The importance of the hay crop is such as to demand the most judicious and intelligent culture. In preparing the soil for seeding down to grass, the land is generally in one of these conditions, viz., sod land, summer fallowed and old cultivated soil. If the conditions of the soil are favorable to the growth of such small seeds, we consider the first method preferable. If the grass roots are too feeble for top dressing for another crop, then turn over the sod about five inches deep in July or August, with a good swivel plow; then put on the harrow and thoroughly pulverize the soil; then apply a liberal dressing of stable manure, or a heavy dressing of special fertilizer for grass, such as nitrate of soda with bone dust, etc.; harrow this in well, and leave the surface fine, light and level, and our field is ready for the seed. We recommend summer fallowing only when the land is filled with couch grass or other obnoxious plants.

HOW TO SOW

Is a very important part in the successful culture of grass, for we must study to know the nature of the soil of our different fields; also, the adaptation of the varieties of grasses to the soils best suited to their growth. At the very outset we say, that our farmers must sow those varieties of grasses that blossom at the same time, i. e., the early grasses by themselves, and the late grasses by themselves; also to sow a greater variety together, and a larger quantity of seed to the acre, than is generally sown, for "he that soweth bountifully shall also reap bountifully." We recommend the following formula for hay seed to the acre :

EARLY VARIETIES.		LATE VARIETIES.	
Red clover	10 lbs.	Herdsgrass	1½ bush.
Alsike	5 "	R. I. bent grass	1½ "
Orchard grass	1 bush.	Eng. redtop	1 "
June "	1 "		
Perennial rye	1 "		

In sowing down to permanent pastures, a variety of grasses which will ripen in succession is desirable, for we have varieties that are maturing in succession for nearly five months of the year. In late April we have the old spear grass in blossom ; in May the white clover, sweet vernal and fox tail; in June a legion of varieties—the principal ones being June grass, orchard fescues, rye grass, red clover, and others; in July herdsgrass, bent grass and redtop; in August fowl meadow, blue joint and meadow foxtail. It is well known that any variety of grass will continue to grow if cut or fed off before it goes to seed, as the production of seed is the great end aimed at in nature.

Of the two hundred model farms in Ireland, most of them are more than self-supporting. The Government outlay for the whole is only $30,000. One of them which has to pay a rental of $20 per acre of its land, has, for some years, realized an annual profit of $3,000. American agricultural colleges would do well to look after the causes of this profitableness.

Gypsum on Mown Meadows.

If "land plaster" ever does good where Mr. Jos. B. Robinson's inquiries are dated—Venango Co.. Penn.—then it will do good on his "clover and timothy meadow," sown immediately after a crop of hay has been taken off. If the weather should be warm and dry the effect of the gypsum will not be seen much at first, but when rain comes it will begin doing its good work. This wonderful mineral, that is of such great value to farmers generally, is slow in dissolving and requires much rain to bring out all its virtues. This fact has led most of the farmers of my acquaintance to sow it often, and in small quantities at each sowing. We have machines that will go over thirty acres a day, and so distribute a bushel of plaster that it is free from lumps, dry, and ground fine—that every part of an acre of grass will receive some of it. In other days, when the sowing of gypsum had to be done by hand, it was about the most disagreeable of the whole round of hard work on a farm. Then we put on three bushels and sometimes more to the acre, and looked for benefits lasting years.

Now we sow generally about a bushel on an acre at one application and sow oftener than we formerly did. Clover seed has been one of the leading crops in Central New-York for many years. We sow our clover seed on our Winter wheat in the Spring, and gypsum either very soon after the clover shows above the ground or soon after the wheat is harvested, being governed by the season somewhat in deciding to sow on the wheat in the Spring or after harvest. The next year we cut a crop of hay, late in June or early in July, and at once apply gypsum, and if we have rains soon, and insects do not destroy our clover seed, we harvest a crop of from one to five or six bushels to the acre, cutting the crop not far from the 1st of October. Though this method of using gypsum is not universal, yet it is one well approved. I have heard the celebrated John Johnston, of Geneva, N. Y., say that he would use gypsum on his clover if he had to pay $40 a ton for it. This is the judgment of one of the most successful farmers I have ever known.—[G. Geddes, Onondaga Co., N. Y. Tribune.

Pastures.

The question is asked, What can be done with our old worn-out pastures, which are growing poorer every year for want of good and cheap top-dressing? Read what agricultural writers in England say of the Cheshire pastures by the use of ground bone as a top-dressing ; their old pastures have increased in feeding stock from 30 to 50 per cent. Quite a number of farmers in Cumberland county tried it last year, by my advice, on a small scale, with satisfactory results, and will use larger quantities this year. You not only give your pastures a fresh start, but it is a dressing that will last quite a number of years, besides the properties of the bone enters the grass, thus giving the cattle in the natural way, what they very much need, and saves them bone meal in their feed. 500 to 1,000 pounds per acre would be a good and cheap dressing, as it would last for a number of years. Sow the bones broadcast as the young grass starts in the spring. As to hen manure the farmers here have used it with good success by composting with ground bone, ashes or lime, covering with loam or mulch to reduce to the proper strength and apply in the hills ; this is one of our best fertilizers.—[Maine Farmer.

The Aftermath.

Mr. P. R. Smith, Mass., writes to an exchange as follows : I have a word to say in regard to the advantages of the aftermath or rowen which in old times was thought of much less value than the first crop, and was generally depreciated. Farmers now, many of them, object to cutting two crops of hay per annum because it exhausts the soil. My experience is that two crops of seedless grass do not make as great a drain on the soil as when it is allowed to mature its seed. When the first crop of grass is cut early, by which I mean when in full bloom, the meadow quickly springs up again and gives a second yield, which makes in many respects a better hay than the first did. Horses are fond of rowen ; so are cows, which eat of it greedily and give a full flow of milk in consequence. I am convinced that there is much more value in the second crop of hay than farmers generally acknowledge or believe. Rowen does not cure so rapidly, perhaps, as the regular hay crop, but if cut the last of August or first of September, while the days are still long and the sun is hot, aftermath may be easily secured.

High and Low Farming.

Mr. Mechi, of Tiptree-Hall Farm, so noted in Great Britain as the introducer of what may be called the highest kind of farming, defines this subject as follows :

HIGH FARMING.

Drainage when required—Rectilinear fields of sufficient size, and a minimum of well-kept hedges or fences—Sufficient farm buildings and covered yards for an ample number of animals and farm machinery and implements—Security of tenure by a lease or by a valuation for unexhausted improvements—Plenty of well-bred stock, fed with purchased foods—Artificial manures as an aid—Much deeper cultivation by subsoil plowing, thus keeping the old seed-bed uppermost—Cleanliness by hand and horse hoeing—and, finally, A knowledge of the business of farming in all its branches.

LOW FARMING

is the opposite of all this. Unfortunately we have abundant evidence that, taken as a whole, low farming is the rule and high farming the exception. We have ocular demonstration as we pass by rail or otherwise through the country, and we have unmistaken annual statistical evidence that British agriculture is at a standstill—at all events as regards meat-making, which in my opinion means corn-growing.

The farmer who makes two pounds of meat instead of one evidently doubles his quantity of manure, and thereby increases his produce to a certainty.

The Wheat Weevil.

After wheat has passed safely through all the perils of the harvest and escaped the ravages of insects that wage war on the growing plant, a danger is not unfrequently in store for it when it has been deposited in the bins. This danger makes itself apparent by a minute white dust spread over the grain and a peculiar odor that permeates the bins. On passing a kernel between the fingers it crushes readily, exposing a mere shell partially filled with dust in place of a round, plump grain.

The little black beetles that laid in wait during the winter months come out from their hiding places in myriads with the return of warm weather. The female makes a minute incision in the grain and therein deposits an egg. As each female lays an innumerable number of eggs and the insects do not hesitate to penetrate the heap of grain in all directions, but few kernels escape. The eggs deposited soon hatch out maggots which bore into and consume the starch of the grain. By the time these pests are grown the grain is nearly or quite exhausted ; the worms go into a pupa state and in a few weeks become weevils, which force their way out of the grain and seek some hiding place for the winter.

Farmers who anticipate trouble from these weevils resort to a variety of expedients. Among these is fumigating the bin with burning sulphur. Others sprinkle air-slacked lime on the wheat, and others again sprinkle it with salt. The surest way of avoiding the weevil is to change the place of storage. Fumigating the bins with burning sulphur, already referred to, is reported by many farmers who have tried it as effectual in preserving their grain from this enemy.—[N. Y. World.

Treating Meadows after Mowing.

As meadows are short, yet with a pretty even and good set, and as the time for applying manure cannot well be spared, and a good quality of manure (fine and rotted) is not always on hand, the next best thing and one of decided advantage is to sow plaster. Apply as soon as the crop is off. It is cheap, indeed the cheapest of all fertilizers, yielding much for the outlay where the land is adapted to it; and it is soon applied. Give double the quantity or more that is given to clover—from 200 to 300 pounds to the acre. Grass requires this. The sulphate is especially beneficial on clay land. Applying the same quantity to grass as to clover (and the grains are included among the grasses) has failed to show a satisfactory result, except where the quality of the plaster was superior, when a less quantity has the effect of a greater amount of an inferior article. All depends upon the proportion of the salt (sulphate of lime) in the stone. A good dose, even applied and covering all, with anything like favorable weather the remainder of the season, will forward and thicken the already good set, and secure another cutting if the first crop is removed sufficiently early, as it should be.