

market quotations for the best wheat that is bought and sold here. It may be that Michigan cannot raise as good wheat of this kind as we do. That point I cannot determine. Dr. J. H. Jerome, of Saginaw City, may have some raised from Michigan-produced seed, he having raised this kind of wheat for two years.

I will only add that quite likely there will be sown ten bushels of Clawson wheat in this vicinity to one bushel of all other varieties this fall, and I think, Mr. Editor, that after you have read this paper you will think that I was doing no wrong in speaking well of this Clawson wheat when it first appeared.

Can its original good qualities be kept up, or must it deteriorate, as have many other good varieties? Some of the farmers here are using mills for cleaning the seed that grades it so that only the largest and perfect kernels are sown. We hope by this grading to prevent this falling off in good qualities.

Dr. Jerome also writes to a subsequent number of the same paper that he has been very successful with the Clawson. He says:

I did not measure the ground accurately, but sowed, as near as I can judge, the same breadth of the previous year of the Treadwell. The bulk of straw at the harvest did not vary to exceed one load, being packed in the same bay each year. Of the Treadwell I threshed 250 bushels, and from the same bulk of straw, as above, from the Clawson, 318 bushels. My estimate of the ground sown each year was eleven acres. The berry was very fine, and at the State Fair contrasted favourably with the best quality of Michigan white wheat, as many of your readers who visited the fair will doubtless remember. We have used the flour during the year with entire satisfaction, and, as my wife says, without having once failed of good bread.

Stooking or Topping Corn.

The Massachusetts Agricultural Report gives the following experiments in stooking and topping corn.

Stooking Best

Take three equal rows in the same field, topping two and leaving one untopped, the result was

Produce of untopped row, 9½ bushels corn in ear, produce of topped and stripped row, 7½ bushels corn in ear. In favour of stooking, 2 bushels. Forty-six hills in which the stalks had not been cut gave 42 pounds 8 ounces dry shelled corn; 46 hills in which the stalks had been cut gave 33 pounds 7 ounces dry shelled corn, or equivalent to 60 and 47 bushels per acre respectively—a gain of 13 bushels in favour of stooking.

Topping Best

Each of the three lots contained four rows of twenty-four hills each, in all ninety six hills. Lot No. 1 was cut at the ground and stooked September 24. Lot No. 2 had the top stalks cut in the usual way September 24. Lot No. 3 was left standing whole until October 29, when the tops were harvested and husked. The ears were spread about six inches deep and remained until December 20. At this date the whole was shelled, and the result was as below:

	Lot 1 lb	Lot 2 lb	Lot 3 lb
October 20th—Ears	143	154	174
December 20—Shelled corn	111	131	195
December 20—Cobs	16	18	174
December 20—Shrinkage	16	64	114
December 20—Shrinkage per cent of	13	4	8

Another result is also given

100 hills	Cut up whole and stooked, lb	Top stalks cut, lb	Left standing whole, lb
Ears	189	200	106
Shelled corn	139	155	141
Cobs	24	26	23
Shrinkage per cent	14	84	16

Commenting on these experiments, the *Scientific Farmer* says:

Let us assume about 3,600 hills to the acre and an average yield of 50 bushels per acre. We then have for our first series an average gain in favour of stooking of about 11½ bushels per acre. For our second series, in favour of topping, about 2½ bushels per acre. In reality, however, the yield ought to have been larger in the second series of experiments than in the first, and it is, therefore, probable that the stooking experiment shows the larger gain. We may assume, however, until further informed, that the results of these two processes on the amount of grain are not proved the one superior to the other. Rough experiments on the feeding value of the fodder from early stooked corn convince us that it is worth certainly double that from topped corn, for feeding to milk cows. Why cannot we have some experimental results reported to us this fall? Will not some of our farmer friends contribute some experiments on this point, by topping and stooking the corn growing on equal areas, and noting the results.

The Aftermath.

The *Western Farm Journal* says.—Years ago, it used to be the practice at the East, to mow the aftermath, or second crop of the meadows, in September, or else feed them closely before winter. In the West, where land is plenty and cheap, the second growth has generally been allowed to grow at will, and remain on the surface during winter. Sometimes the after-growth is exceedingly heavy, and in such cases cutting just before hard weather sets in is beneficial, since the grass may then lie as a mulch during winter, and in the spring it may be raked so as not to interfere with mowing and gathering the next crop. If fed closely after mowing, or if cut much before the growing season is over, the roots are consequently weakened, and, if persisted in, the succeeding crops will show the results of this bad practice.

If stock can be obtained sufficient to eat this aftermath quite late in the season, without the tramping and uneven feeding that must ensue from the ordinary way of pasturing, it might be quite as well to eat it off as to mow it, except this: the meadow would not receive the benefit from the mulch during the winter. This mulch is far more important than is generally supposed. In the first place it acts as a blanket to the soil and roots. Shading the earth causes a deposition of nitrogen from the air, and it keeps the soil cool and of equable temperature.

Under ordinary circumstances, or, if the aftermath is not exceedingly heavy, it so decays before the next mowing season as not to interfere with the operation of hay making. In other words, it has become manure, and goes to enrich the roots of succeeding crops of grass. Thus, if this annual mulch has been left on the soil, it will be found not only that the succeeding crop of hay is enough better to pay the value of the grass left, but also, when the sward is again broken up there will be a rich layer of humus soil that will tell favorably upon succeeding crops. The sun beating upon a naked soil renders it infertile. Nature's best cultivation is mulch. We may not constantly take from the soil without replacing. And one of the worst systems practised upon meadows is to keep them closely mown or pastured here.

Troublesome Weeds.

The kinds of weeds that are troublesome under some systems of farming, disappear or do but little damage under others. This fact is often an important item in deciding what kind of crops should be grown. Years ago, when wheat was the main dependence, and occupied the land every alternate year, the wheat field was filled with red root. In those days, especially on sandy soil, farmers unanimously voted this the most pestiferous weed in existence. On some large farms hundreds of bushels of red root seed were cleaned out of wheat, and the growing of this crop became almost impossible from this cause alone. Since the advent of the milge, and the change from exclusive wheat-growing to mixed husbandry with corn and other spring crops, red root has become less troublesome, and is now rarely thought of. Some farmers, within a few years, have thought that they could now renew their old policy of growing wheat each alternate year, and they are troubled again by the appearance of their old enemy. This year I think red root has been generally more plenty than in many previous seasons. Probably last fall was unusually favorable to its growth.

The change, now generally in progress, from grain and clover to grass and dairy, dismisses for the time some of the farmer's old enemies, but unfortunately introduces him to some new ones already here and waiting to receive him. Quack grass is little likely to be so much noticed when land is seeded to permanent pasture or meadow as when ploughed every other year. In fact, I am a little afraid that the prevalence of this weed is one reason for the general desire to quit ploughing and seed the land to grass. Under the policy of ploughing most of the land—often more than could be well cultivated—quack has increased enormously, and very few farms of one hundred acres are entirely free from it. Farmers hereabouts have not learned the knack of your correspondent, Mr. Ives, in managing and utilizing this weed. We all regard it as the greatest possible nuisance in all cultivated crops.

The common rag-weed has become a great nuisance, especially in stubble ground after harvest. It is the most accommodating weed I know, and will adapt itself to any soil. In a sterile or hardly packed soil, it may be only ten or twelve inches high, or even less, but full of seed the whole length of the stems. When the soil is rich and mellow, it spreads itself like a tree three or four feet high, with widely extending branches. Sometimes when clover is thin it will appear the second year, but rarely causes much trouble in clover meadows. If pastured it will injure the feed, crowding out the clover which is cropped by cattle, and wherever eaten by cows will impart an unpleasant taste to milk and butter. This weed can be kept in check by clean culture in hoed crops and by liberal sowing with clover when seeded. A thick mat of clover

will keep down all annual weeds, and greatly check most others. In permanent grass rag-weed causes little trouble, the seeds, however, remain dormant, ready to grow when the land is ploughed again.

Wild carrot is, however, a plant of totally different character. It has become very common, and where land is left unploughed two or more years, it will be one of the most troublesome weeds. It is a biennial, and very hard to get rid of where it exists in large quantities. Cutting with a scythe has to be repeated at frequent intervals, and after all, the chances are that some will escape, as it will seed very near the ground if cut often. Johnswort and teal are also often bad weeds on farms in permanent grass.

Weeds in pastures are especially bad for the dairy, for cows will frequently crop them by mistake when growing with other herbage. If there is to be increased production of dairy articles, only the "gilt-edged" will bring a remunerative price. We shall come to this in time with milk as well as butter and cheese. The milk of some cows is worth twice as much as that of others, or sometimes of the same cow when fed on different food. I have heard that a farmer who supplied unadulterated milk to a milkman, had his product criticised by the latter because the cows were fed liberally with beets, which produced great quantities of thin milk that would not bear watering. He was very particular to get rich milk, not to give a treat to his customers, but that he might sell more water and increase his own profits. Sometime people will learn to detect the difference in quality of milk aside from its richness, and then the dairyman whose land is free from weeds can sell his milk at a premium.—*Cor. Country Gentleman.*

What Kind of Barns.

The old method of making hay was to let it lay out several days and keep it continually stirring until it was thoroughly dry, and had more the semblance of chips than grass. The improved practice is to cut with a machine, ted it a few times, and draw it to the barn the same day. If such wilted grass is not allowed to get wet, it is found to keep quite as well as the former dried hay, especially in the case where the barns are comparatively tight. Recent experiments are reported, in which the freshly cut grass—cut after the dew was off—was allowed the sun but a couple of hours, during which the tedder went over it once, and was then raked up and housed in a building, clapboarded, tight beneath, plastered inside, and with slight ventilation, which was at once closed tight and not opened till winter, when the grass came out fresh and bright as the day it was put in. A farmer on the Berkshire hills had a short hay crop which he determined to make go as far as possible. His barn was well sheathed, without cracks. The grass was all cut early, just before blossoming, and housed the same day as cut. While carting the hay the barn doors were kept closed, save to admit the teams, which were unloaded with the doors shut. Access of air was prevented so far as possible thenceforth. The hay was closely packed in the mows. The testimony of the farmer and all his neighbors is that this crop of hay was brighter and fresher the next winter, and was more nutritious—the cattle eating less of it—than any previous crop. We might cite numerous similar examples. There is nothing in this contrary to science or sense. The over-heating of hay will only take place by the action of the oxygen of the air in the presence of moisture. Remove either and the heating will not occur. Remove the moisture and the grass becomes dry hay, less digestible, and minus some of its nutritive and aromatic qualities. It is better economy to keep out excess of oxygen, and have cured grass for fodder. There is a great saving of labor too in housing hay the same day as cut, which of itself is a strong argument for the system. Every wetting by dew, every hour's sun after the grass is wilted, lessens the value of the fodder. We can take advantage of the idea by providing tight barns, and keeping them closed until the hay has gone through its "sweat," which is a slight fermentation which drives off excess of moisture without injury to the hay, if excess of oxygen is not permitted in the meantime.—*Scientific Farmer.*

Sow Sparingly.

Oats is a far better crop than many are willing to acknowledge. Its capabilities ought to be better known. I have noticed for a score of years that it has been the practice to sow oats in the spring, and somewhat late at that; then when it begins to show a few well-formed grains the crop is cut for fodder. It takes quite a number of days to dry it so as to pack with safety. It is after all a light, flashy fodder. Having sown from two and a-half to three bushels to the acre, it grows so slender that an ordinary rain-storm causes it to lodge, which puts a stop to its maturing, and besides this, if grass-seed has been sown with the oats, it is sure to be killed on every spot where