

we can produce. I favor cutting so that it will wilt enough the first day that it can be raked into windrows early enough the second day to put into cocks, where it is left until it is cured, usually several days.

We use a mower with six-foot cut. The advantage is twofold, rapidity of work, and the grass is never doubled; it falls where it stood, and dries out quicker than with a narrower cut.

I prefer cutting when the dew is off, but don't adhere strictly to the practice when rushed. With heavy, sappy clover, it is well to run the tedder over as soon as sufficiently wilted. I might say, however, I never used a tedder very much, but use the side-delivery rake instead, which really does the work of the tedder. I favor the reel rake, which turns the hay completely over and exposes the uncured parts to the sun and air, which cures it very rapidly, and puts it in nice windrows to follow with the loader.

We have frequently, in good weather, when the grass was not too heavy, cut in the morning and hauled into the barn the same day. This, however, cannot be done with a heavy crop of clover, but I have done it with heavy timothy. When we get into rushing things, we usually keep enough cut to keep hauling in as soon as the dew is off, always putting in windrows as soon as ready to rake, to prevent leaves from getting too dry or bleached by the night dew.

The main secret in making good hay is to have it free from dew or any foreign moisture before hauling in. When two-thirds of the hay is dry, it is safe to start to mow away. We use the hay-loader, and consider it invaluable and a great labor-saver. The side-delivery rake and hay-loader must go together to work to advantage. We straddle the windrow. The horses will soon learn to follow it, and two men will load nearly as fast as the horses walk, only stopping occasionally. For hauling in hay or grain, for convenience or handiness, there is, to my mind, nothing to equal the flat-bottom rack. It is like working on a barn floor, and a larger and much tidier load can be built. For stowing away in the barn, the horse fork, slings, or rack-lifter, are in use in this section. We use the lifter, and prefer it to any other. The load is lifted to the top of barn, then the whole load dumped at once with the horses, or unloaded with the horse fork. Care must be taken to keep the mow level, or else the hay well distributed where dumped. We usually throw a little salt on the hay every few loads, especially when hay is a little damp; this will keep it from molding.

I have practiced different methods of securing the hay crop, all of which have commendable features, but I am fully convinced that, with a full set of haymaking tools, we are putting up an equal if not superior quality of hay to the old, slow process of curing in the cock, taking it on an average from one year to another, with much greater ease, far less risk, and less expense. Even if I could get plenty of help, I would not exchange for the old method.

A. C. HALLMAN.

#### LOW-WHEELED, WIDE-TIRED WAGON FOR HAULING.

Editor "The Farmer's Advocate":

Regarding the cutting, curing and storing of hay, I think no hard-and-fast rules can be laid down, as much depends on the conditions of weather, crop, etc. However, cutting is often begun too late; especially is this the case where there is a large quantity to handle. It should be commenced when in full blossom, and, if possible, finished before any of the seed will shell or the fibre of the plant become woody. The date of commencing varies with the season, but in our neighborhood clover is ready usually about July 1st, and timothy a little later. With clover, I find the best way is to cut as soon as dew is off, follow in two hours with tedder, and cock up before dew falls, and in about two days haul in. It may be necessary to open out the cocks for a short time before hauling. With timothy, we often follow the same plan, with shorter time given for curing. But when the crop is largely composed of timothy, if weather is fine, we cut any time when dew is off, follow with tedder (twice if crop is heavy), and next day go on it with loader, without raking, using a loader which clears an eight-foot swath, and we think the greater amount handled in this way will make up for loss sustained by lying over night; and, when crop is light and season advanced, it can be hauled in the day it is cut. Alfalfa is not grown here yet. I have put in half an acre this year.

I use a five-foot-cut mower, but larger would be better. Our wagon has low wheels, with five-inch tires. I find the low wagon a great advantage in pitching, and, with wide tires, we can take much larger loads, without cutting up the fields or lanes.

In short, the importance of securing the hay crop in its best condition, and the scarcity and expense of hired labor, make it necessary to use up-to-date machinery and methods; and in bringing this about, I know of no better agency than "The Farmer's Advocate."

Glengarry Co., Ont.

W. E. McKILLICAN.

#### COTTON VERSUS SILK.

Editor "The Farmer's Advocate":

The time at which I commence making hay is entirely governed by the growing crop. Should the bulk of it appear to be ripening for the mower at about the same time, we must cut some earlier than at its best, so as not to have the later-cut overripe. Of the two evils, I prefer the former. What is lost in weight of the first cutting, is more than made up by a second cutting of aftermath or for seed.

I usually commence the Monday nearest June 25th. This year we shall be much later, though I have an unusually promising crop of clover. In my neighborhood haying is generally delayed many days after I have commenced, perhaps for the reason that mixed timothy and clover is the main crop, while I just take one crop of clover, the sward being afterwards plowed up for corn. I have about 25 acres, in two fields, which are devoted to timothy alone (a little alfalfa being sown with the timothy seed). About four years one field yields big crops. It is then cultivated for four years, and the other field takes its place. This hay is, of course, for the horses.

To state the best practice in making the various kinds of hay, would be a big order; a book's cover could scarcely hold all your query suggests. I simply reply, there is no royal road to making hay. One cannot write out a prescription like unto a physician's, with the druggist to fill the order; neither are the charlatan's prescriptions to be followed. In every paper you will find, "I cut my hay after the dew is off, rake up, and cock at night, and haul in next day." That man either is very fortunate, or he cuts his hay so late that it requires no curing.

My experience is not limited. When at N. Y. Mills, I had up to 400 acres of meadows, and no formula that was ever devised could have gathered that hay, unless brains were used. It is the same on 10 acres as on 400. Every day's weather is to itself, and has to be studied. Hence, I say, how much more difficult it is to cure clover than it is for a doctor to cure a disease with which neither storm nor rain may interfere.

Red clover we usually turn by hand, according to the weather, then get into cock. Timothy or mixed hay require but little attention. Alfalfa, or lucerne, as I prefer to call it, I have grown since 1863 on the sands of Long Island, on the Utica clays (N. Y. Mills), and in two places in Middlesex County, and yet they say soil inoculation is necessary. Just sow a little seed and try for yourselves; ignore the inoculation theory. For hay, cut if possible when the first indication of flowers appear; cut, and cock next day in very small cocks. If not sufficiently cured, exercise the judgment I have tried to instill into this letter. There are times when this crop must be cut, but it requires a lot of balanced brain-power to make a success, outside a few acres, in Ontario. The ground is often too damp and cold, but when it is properly cured and got into the barn in perfect order, no crop grown on a Canadian farm can be more satisfactory. Three cuttings a year for three or four years with one seeding; and nothing on the farm but dogs and cats refuse to eat it! Pigs and hens eat it; the cows and calves are spoiled, after eating it, for other hay. And this depends entirely upon the judgment in curing—ordinary mower, rake and wagon rack.

For the making of prime quality of hay, as you suggest, I would certainly recommend the tedder. For over forty years I have used these, and by their aid I have been able to get the half-made hay into cock, when without their aid I could not have done so.

Regarding the making of prime hay, I have discarded the hay loader. I put all my partially-cured grass into cock, and pitch by hand. It is a more costly process, but the results more than pay the extra expense entailed. To get hay together in the mow, where the matter of cheapness is a consideration, let the timothy crop nearly ripen; then one may cut in the morning, use the loader in the afternoon, and at night sleep the sleep of one who has accomplished a great day's work—cleared so many acres of what?—hay or hay straw? There is just as much difference in hay as there is between cotton and silk; each require separate treatment, of course, but it is the haymaking of each that pays.

Middlesex Co., Ont.

R. GIBSON.

#### WHEN TO CUT ALFALFA.

The time to cut alfalfa is when it has begun to bloom, the lower leaves have begun to turn yellow and drop off and buds are starting out from the base of the stems. Cut then, for it has in it the greatest amount of nutrients. Allowed to stand longer, the stems become woody, some of the leaves are lost, and the hay is not so palatable, nutritious or digestible. If cut too soon, before the buds have set on the stems, sometimes the succeeding crop is seriously injured, for what reason is not yet known.—[Joseph E. Wing, in Farm Science.

#### HAYMAKING: CLOVER, ALFALFA, TIMOTHY.

Editor "The Farmer's Advocate":

In making hay, I prefer early rather than late cutting, quality rather than quantity. Clovers should be cut from June 26th to July 5th, varying somewhat according to soils and seasons. Timothy should be cut just as the second blossom is going off. Several of my neighbors cling to the old custom of coiling their hay. This, I think, is a great waste of time and quite unnecessary, except under certain conditions. I prefer to cure alfalfa in the coil, but do not pretend to coil clover or timothy, unless there is rain coming and I have more raked up than can be got in. In that case, I put someone at coiling, if it is possible, without stopping the drawing. I think the safest and best plan (early in the haying season) is to cut early in the morning just about what can be handled in an afternoon. Right here is where very many make mistakes that are the cause of damaging a lot of hay. I know men who will cut down at one time what it will take two or three days to draw. About an hour after hay is cut it should be tedded, and, if it is extra heavy, ted it over again immediately; then ted it again early on the following morning. Don't leave it until the dew dries into the hay and the tedder knocks the leaves off, but ted the dew off the hay. This same rule applies if it rains; ted as soon as the rain is over and shake the water off. This largely prevents it from coloring the hay, and it loosens up what has been somewhat packed by the rain and allows the wind to get through it, and thus it dries very quickly. As to saving alfalfa, which is the best hay of all, where it can be grown successfully, I cut it early, before it gets woody, and ted it right after cutting and again early next morning, and as soon as the dew is well dried off, rake and put it up into fair-sized coils and leave it there (it will settle, so that a shower will do scarcely any harm), then go right along saving the other hay. I can then draw a load or two of alfalfa at any time when waiting for the other hay to cure or for the dew to dry off, or perhaps after the dew has begun to fall (you see, the eight-hour day doesn't apply here).

The tedder is the best tool there is for making good hay, and the hay loader is the best tool for saving it. The side-rake is very convenient, but I am of the opinion that they are too costly for the time they will last. The horse fork is the only labor-saver that we have at the barn. We spread every load in the mow the same as if pitched by hand. By so doing there is less danger of having musty hay than if the fork loads are dumped by means of a pole or any other device. If hay is evenly spread, it can be put in much greener than if allowed to remain in forkfuls.

To save clover or timothy, we do just the same as with the alfalfa, except that we commence to draw in, instead of coiling. Of course, all those things depend largely upon the wind and the heat of the sun and the stage of ripeness. As hay gets more matured, it can be cut in the morning and drawn in the afternoon. I always put about three quarts of salt on each load of hay after it is spread in the mow; it not only assists in curing it, but increases its relish to the stock.

Middlesex Co., Ont.

R. H. HARDING.

#### AN EXPERIENCE WITH WOOD ASHES.

There is a shameful waste of good fertilizing material going on behind many Canadian farm homes in the form of wood ashes, while in other cases almost equal sacrifice is made by trading them to the ash-buyer for a bar of soap. We were interested the other day, in perusing the pamphlet of an exporter of ashes, to notice what he had to say for the benefit of his American customers about his own experience in using ashes to build up a worn-out piece of land. It is a very striking result, but not more striking than several we could cite from our own observation:

"There is a saying that a certain doctor, in his practice, used to try his medicines on his wife, and, if they did not kill her, then he used them for his patients; so I will give here my experience in using my own medicine, hardwood ashes, on my own land.

"In April, 1896, I bought 20 acres of land, at \$45.00 per acre. This land lay along a leading road within the Town of Napanee, Ontario. The party from whom I bought had had some difficulty in renting this land for enough to pay the taxes. The land being within the town, the taxes were high, and several of my neighbors told me that I would have hard work to make the interest and taxes on my investment. This land was seeded down to meadow, but it was so run-down that it cut only about ten tons of hay the year before. I broke it up and tried to raise a little stuff, but the whole crop the first year was not worth the labor I put on the land. However, I got rid of a lot of foul stuff, and cleaned it up, I thought, in good shape. I seeded down half of it in the fall with rye and timothy, and top-dressed it with about four tons of hardwood ashes to the acre. In the spring, as the snow went off, I sowed about ten pounds of clover seed per acre. The balance of the land I ridged up in the fall, and