

MUCH GOOD HAY LOST in the MAKING of the CROP

By E.W. MILLER



IN THE RYE FIELD



USING THE TEDDER

THE USE OF MACHINERY HAS MADE HAY MAKING EASIER

Haymaking is an art which a great many farmers have not yet learned. The modern method of making hay is far different from that of the old days when grass was cut with scythes, turned with pitchforks, if time permitted, and stowed away in dark, musty barns, or stacked in the open field to keep or spoil as might be.

In modern haymaking, time is essential. If the crop should be cut a day too soon it will easily spoil. If a day too late its quality may be impaired by its dry, woody growth. If it is allowed to lie on the ground 24 hours too long before being tossed and cured its quality may be reduced one-half.

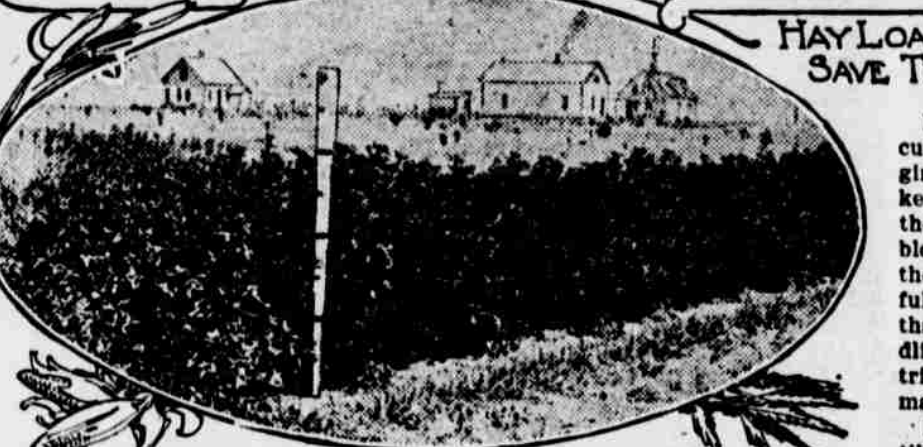
Modern haying machinery makes haymaking easier, but even with all the appliances that ingenious manufacturers have given us, the proportion of farmers who make a "sure thing" of their hay crop, every year is all too small.

There has always been a great deal of trouble in curing the clover-hay crop. Much of its value is lost because of the lack of help necessary to properly cure it and take care of it after it has been cured. The hay-tedder has helped greatly, and this kicking machine is now seen on every good farm where the best modern methods are employed.

SWEET CLOVER TOO OLD FOR MAKING GOOD HAY



HAY LOADERS IN OPERATION SAVE TIME AND BACKACHE



SWEET CLOVER JUST RIGHT FOR CUTTING FOR HAY

The side rake is another fine machine which helps us in saving the crop, and if clover is cut in exactly the right time the use of these two machines will enable any farmer to save all their lot of his crop, with at least 90 per cent. of its feeding value.

Heretofore, much of the hay of this country was lost through allowing it to stand in stacks in the field. The hay barn is now a necessity on every good farm where the most is made of everything. Where hay is still stacked canvas covers help a great deal, but the only way to properly care for clover hay is to put it into a well-ventilated, clean barn.

The value of the hay crop depends largely upon the man who makes it. He must have exact knowledge of the time to cut it, just how it must be cured in all kinds of weather, and how to store it. He must thoroughly understand the use of all haying machinery and know how to make the most of every hour of the haying season with his human help as well.

The proper use of machinery is the most important thing. Too many farmers in their haste to get the crop off the ground crowd their mowing machines beyond their capacity, which always results in considerable loss. Nothing is more indicative of a poor farmer than the sight of a hayfield in which little rows of grass, varying from two to six inches, are left standing, the result of trying to make a seven-foot cycle-bar cut a seven-foot six inch swath.

The machine should be set and so driven as to cut every spear of grass alike and clean, and lay it down evenly. Then, when the raking comes on, there is another source of loss in the careless way in which the ground is covered, or rather not covered. Little bunches of hay left here and there count largely in the aggregate, and mean large money lost.

We know of many good farmers who are particular about the way in which they handle every crop on the farm except the hay crop. They make out of this a sort of side issue. They fail to make proper preparations, and when the season comes upon them they dash hurriedly into the work, rush it from start to finish, take small note of weather conditions, and thereby lose from 10 to 25 per cent. of its value.

The up-to-date farmer who produces timothy hay as a rule raises it for the market and not for the consumption of his own stock, because clover and alfalfa are so much better. Timothy for the market should be allowed to get riper before it is cut than if it is to be stacked and fed on the farm.

All arrangements for the baling

should be made in advance, so that the mower can be started and kept ahead only a few acres at a time. One man can operate the mower and tedder. The tedder should be started an hour or so before the hay is to be taken up, and this is work which requires great care if the crop is to be saved in the best condition.

If the hay crop is large a loader is almost indispensable, because it will do the work much faster than any two men, and do it better. As it is always difficult to get help in haying time, it is a good plan for several farmers to buy and operate a loader and other haying machinery on the co-operative plan. By a little careful figuring and good judgment a group of farmers can, in this way, help one another to save their crops, with less labor and less expense, and with more certainty of success than could be attained in any other way.

Timothy hay may be baled directly from the swath without much danger of heating, although it is safer to have the hay thoroughly cured before being baled. If hay is baled directly from the swath it must be entirely free from rain or dew, and this process can be employed only under the best of weather conditions.

Upon the weather depends almost entirely the safety of the clover crop. The best time to cut clover is when it is in full, rich bloom, and before any brown heads appear in the field. Many farmers claim that clover should not be cut at this stage, but the experience of the writer is that nine times out of ten the crop will be saved in better condition than if allowed to stand longer.

Start the mowers early in the morning, because dew will not hurt the clover, provided the weather is fine; run the machine until about ten o'clock, and then stop for the day. If the weather is bright the tedder should be started about noon, and the hay raked in small windrows, and these can be allowed to stand until the hay is ready to be drawn into the barn.

If the weather is just right the hay will be ready to be taken from the field within 24 hours, and put up in that condition it should retain all of its leaves and succulence, and make excellent hay.

If even a slight rain falls, or if the hay is allowed to remain in the field more than a day, the small piles should be turned over. The hay must be perfectly dry when it is put into the barn; if it is not trouble will quickly follow.

If the hay begins to heat in the barn, there is not much to be done for it. To fork it over and stir it up only in-

creases the trouble. If clover hay is properly cured and put into the mow in first-class condition, and the mow well ventilated, there is not much danger of heating.

In order to make a good clover-hay crop we must thoroughly understand the nature of the plant. When the crop is ripening the water is constantly passing out of the soil up through the roots, the stalk, and into the air through the leaves. The plant is being built up and matured in this way.

When the blossoms begin to turn brown, that is a sign that the connection between the water and the plant is being lessened, and this is the time when the crop should be cut, because it completely severs the connection and reduces the amount of water in the plant.

Clover cut at this period has about 75 per cent. of water left in the stalk, and the problem is how to get rid of the most of it without drying out the plant too much, thereby rendering it less palatable and less valuable as a stock food.

When clover hay is put into the barn in exactly the right condition it has about 25 per cent. of moisture, which it has absorbed from the soil.

In the west, where the acreage is generally much larger than in the east and south, many clover raisers find it a good plan to cut their hay in the evening, turning it over next day after the sun is well up with the tedder. The side delivery rake is probably used more in the west than in other sections of the country, and this is found to be a practicable and useful machine.

The best time to make clover hay is on a cool, clear day with the wind blowing, for the wind cures the hay better than the sun.

A very hot sun, particularly if there is much humidity in the air, kills the leaf structure and prevents it from evaporating the moisture. When hay is tossed up loose in the windrow, or in small cocks, the air can pass through it, and this absorbs the moisture more rapidly than the sun.

Good hay is not dried grass, a distinction which many farmers have not learned. When clover hay is put into the barn it ought to have some moisture in it, not the moisture produced by rain or dew, but the natural moisture which the plant has absorbed from the soil.

If clover is not cut until all the heads are brown, it can easily be cured, but it will not make very good hay. Again, if the hay is raked up into cocks when it is perfectly dry, and then becomes soaked, much of its value is lost.

Mixed timothy and clover should be cut immediately after the bloom begins to fall. Close watch must be kept of the meadow at this period, as the timothy blooms and sheds its blossoms in a very short time. When the bloom is on full, the heads are full grown and the seed firmly set, so that they do not shatter easily in handling. Cut just at this time, the nutrition of the hay is retained and it makes a fine selling product.

If the grass is allowed to stand until a bit overripe, the seeds will shatter in handling, and much of its substance will be lost. The stems, too, become hard and lose much of their succulence so greatly relished by the live stock, because the moisture leaves the stems very quickly after the grass has reached maturity.

If cut after thoroughly ripe the most desirable portion of the hay is lost. Many of the blades are entirely lost in handling, and what remains on the stems is tasteless and unpalatable to stock.

Whenever you observe much hay left in the mangers be sure it has been rejected by the stock because it is unfit for their needs. Sometimes stock will eat this woody, dry hay out of necessity, but it does them no good.

On the other hand, the early mown, mixed hay possesses all of those elements so necessary to the building up of animal tissue, and live stock will eat it up clean. The farmer who finds it difficult to obtain enough waste hay to supply bedding for his animals may be sure that he is getting about all the benefit there is to be had from his hay crop.

While it is not wise to cut too early, still it is better to err on the side of early than of late cutting. The amount of good hay secured by early cutting is usually greater than that when cut after the crop has thoroughly matured.

One thing in favor of early cutting is the fact that the drain upon the soil is stopped. The ripening process of the hay crop exhausts the soil very rapidly, and it is important that the elements necessary to produce good hay should be kept in the soil as long as possible. Renewing and maintaining soil for hay is another story.

By mowing meadows early in the season the grass will spring up and form early and succulent fall grazing at a period when there is usually shortage in pasture, and when the live stock need it most.

Of course, it can be dried out and present the appearance of pretty good hay, but all the same it is safe to count that about half of its value has been destroyed by the rain.

The use of canvas caps is therefore to be recommended.

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It takes some grit to thin a field of corn. We hate to pull up nice, thrifty stalks, and yet, when we do it, we may be adding a good many bushels to the crop we cut next fall. Too thick corn cannot ear as well, nor mature as well quickly.

If the boy wants to attend the agricultural college, and you can afford it, don't make the mistake of keeping him away. The day will come when you will be sorry.

WAR REMINISCENCES

62D OHIO AT FORT GREGG

Thirty-Six Men Were Lost Directly in Front of Fort—Losses Other Regiments Suffered.

The First division, Twenty-fourth corps, was near Hatcher's Run the evening before the battle at Fort Gregg, and all night in line in a clover field.

Colonel West, commanding the Sixty-second Ohio, about ten o'clock that night asked that I be detailed from Company K to report to General Osborn's headquarters, when one from each regiment of the brigade was escorted outside of the lines to find out if it was possible for men to cross a swamp reported in our front, writes T. R. Shaw of Co. Ia., in the National Tribune. After about four hours' time, having located the enemy's works and getting the information wanted, I reported to General Osborn's headquarters. The general then wrote me a pass, excusing me from duty for five days.

About that time a terrible cannonade began towards Petersburg and lasted until daylight. About sunup the Sixty-second was ordered in line in advance of the First brigade, First division, Twenty-fourth corps. I took my place in the ranks, and we double-quickened about five miles, when we formed line of battle and were ordered to deploy as skirmishers. Our right was on the rebel line of works facing Fort Gregg, some two miles away.

There wasn't a man of any corps ahead of us, except a disorganized mass of rebels in the ravines and behind the stumps, which we drove before us, regardless of the shells of the rebel forts. We could not see Fort Gregg at this time, it being beyond a ridge, but there was a three-gun battery at a bend in the line of works that shelled us, and as we got near it gave us canister, but our left flank advanced until they could get a crossfire on the battery and took it when we drove everything over the ridge and came in plain view of Fort Gregg.

We kept driving their men, until we finally made a rush for an old road in our front running parallel to the fort and a splendid position for a skirmish line, where we annoyed the fort, and kept the gunner down until some time after noon, when we were recalled. The troops were then massing for a charge. As I was near Colonel West a staff officer told him to withdraw his men behind the ridge and let them go to dinner, and they need not go in the charge, as they (the Sixty-second Ohio) had done enough. But when the charge was formed Colonel West called to all that wanted to follow him to fall in. Most of the regiment responded and advanced up to the front of the fort.

Captain Griffin quotes Capt. H. L. Carr as saying that no part of Osborn's division struck Fort Gregg. Now, the Sixty-second Ohio lost 36 men directly in front of the fort. The Thirty-ninth Illinois had a heavy loss, also the Sixty-seventh Ohio. None of Turner's men ever were ahead of these regiments. Captain Griffin says the colors of the Twelfth West Virginia and the One Hundred and Sixteenth Ohio were planted on the south side of the fort. They never were in that position, and the reason they (the Twelfth West Virginia and One Hundred and Sixteenth Ohio, Osborn's division) went in at the northwest angle was in a hand-to-hand encounter at the south, and, as the captain admits, held the garrison at that point. The Twelfth West Virginia, the One Hundred and Sixteenth Ohio and others went in at that corner of the fort, while Osborn's men went in at the same time at the front.

Optimism.

Admiral Schley once tried to have certain reforms instituted in the navy. He found at headquarters a good deal of the optimistic or lazy spirit, however, and so he rebuked a headquarters optimist with a story.

"You remind me, sir," he said, "of old Jimmy Traddles. Jimmy was a laborer. Noon sounded one day, and he sat down and felt in his pocket for his lunch. But the pocket was empty. 'Boys,' he said, 'I've lost my lunch.'"

"Then he gave a cheery laugh. 'It's a darned good thing I've lost it, too,' he said.

"'Why so, Mate?' a man asked.

"'Because,' said old Jimmy, 'I left my teeth at home.'"

The Very Kind.

"What's your name?" asked the recruiting agent.

"Fish," replied the applicant.

"You'll do. We'll make you a 'sword fish.'"

Foolish Question No. 77,532.

Dr. Kindell of the Fiftieth Illinois, while in camp at Rome, Ga., in 1864 answered almost every possible foolish question, but a new one was sprung on him by a young man of Company E. He came to the doctor with an inflamed eye. The doctor fixed him up some medicine to be dropped into the eye three times a day. The young man left the office, but returned in a few minutes, slightly disturbed.

"Doctor," said he, "shall I drop this in my eye before or after meals?"

HOW COCA COLA REFRESHES.

The remarkable success which has attended the sale of Coca-Cola has been explained in many different ways. Some have attributed it to "good advertising;" others to "efficient management;" others, to its "delicious flavor;" and still others to the fact that it was the first in the field of "trade-marked" soft drinks.

In this connection, the opinion of a manufacturing chemist who has analyzed Coca-Cola and studied its history for many years, will prove interesting. He attributes the popularity of the drink in large part to its quality of refreshing both mind and body without producing any subsequent depression. He points out the fact that the chemical composition of Coca-Cola is practically identical with that of coffee and tea (with sugar added) the only material difference being the absence of tannic acid from Coca-Cola. He points to the laboratory experiments of Dr. Hollingworth of Columbia University and of Dr. H. C. Wood, Jr. of Philadelphia which prove conclusively that the caffeine-containing beverages (coffee, tea, Coca-Cola, etc.) relieve mental and muscular fatigue by rendering the nerves and muscles more responsive to the will, thus diminishing the resistance produced by fatigue. These experiments also demonstrate the fact that the caffeine group of beverages differ from the stimulants in that the use of the latter is followed by a period of depression which calls for more stimulation, thus resulting in the formation of a "habit."—Adv.

Tongue-Tied.

His Need of the Moment.

An old ducky was encountered by the expedition sent by Uncle Sam for the relief of sufferers by the Mississippi floods. Uncle Eph was in a dilapidated looking skiff or dugout, which he was having considerable trouble to keep afloat. He was busy paddling with one hand and bailing out his craft with the other when the relief boat came within hailing distance of him:

"Hello there, uncle! What do you want?"

"Nothing but wings, boss," was the answer.

AUTOMOBILE FOR SALE.

A sixty horsepower seven-passenger "Stearns" touring car complete and in good condition. There is no new car on the market with so much power. Reason for selling owner wants a more modern car. This "Stearns" cost \$4,750. Will sell for \$1,600—and to a responsible party, part cash, balance monthly payments. No trade of any kind. Address P. O. Box 898, Omaha, Nebraska. Adv.

Why Druggists Go Insane.

Little Lola's mother had sent her to the corner drug store for a stamped envelope, giving her three pennies with which to pay for it.

"Well, little girl," said the druggist, "what can I do for you?"

"If you please, sir," answered Lola, politely, "my mamma wants three cents' worth of stamped antelope."

Natural.

"As soon as I approach a backer for my enterprise he flies from me."

"Well, don't you think it the natural thing for an 'angel' to fly?"

"It Can't be Done"

It is impossible to maintain health and strength if you allow the stomach to become weak, the liver sluggish and the bowels constipated, but you can guard against such troubles by the daily use of

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A British Columbia, Saskatchewan, farmer writes: "I can't homestead, March 1905, with about 100 acres of wheat and machinery, and just \$5 in cash. Today I have 50 acres of wheat, 50 acres of oats, and 50 acres of hay." Not a single year, but only an instance of what may be done in western Canada in Manitoba, Saskatchewan or Alberta.

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