

The Farm

Curing Alfalfa

Directions for cutting alfalfa hay are given by the chief of the Irrigation Division of the Canadian Department of Agriculture. Though written for farmers, they are applicable to all alfalfa growers. The best appearance of a product that will command the highest market price is not only a matter of the proper stage of growth, but also of the way in which it is cured, not only its leaves, but as much as possible of its bright green color as well. In order to obtain this class of product, but also its attractive appearance.

The leaves of alfalfa hay contain more feeding value pound for pound than the stems of the plant, so that the plan to insure the saving of as large a percentage of the leaves as possible. The proper curing of alfalfa, however, is not a different problem, provided favorite weather conditions can be secured. No hard and fast rule can be laid down that will fit all conditions equally well for the methods of handling in each case will always depend largely upon the weather.

Normally, alfalfa should be cut in the forenoon after the dew is off and raked up into windrows while still quite green, either late the same afternoon or not later than the following afternoon, for the longer it is left in the swath, the more it will become bleached and discolored from the sun. If the weather is dry there is little danger of placing it in the windrows too green. It should be left in the windrows from one to two days, or until half dry, and then placed in small or medium-sized cocks or piles, where it is to be left until it is sufficiently cured to permit of storing.

The main principle to be observed in the curing of alfalfa should be to dry it out sufficiently for storing with as little exposure to the sun and elements as possible. If his principle is borne in mind, and the plan outlined carried out, it is possible to dry it out sufficiently for stacking and still retain its bright green color—always provided the weather is good. Rain during harvest its feeding value, it is being more widely grown each year, but is harvested and cured with difficulty. Some growers in these districts place the piles of hay on small "stools" with slatted bottoms, the stools being constructed of 1 1/2 inch lumber, and elevated on short legs about six inches from the ground, after which each pile or cock is covered with a canvas cover until the hay is thoroughly cured and ready for the stack, but this method is expensive from the standpoint of both equipment and labor. The covers used cost about 60 cents each. Whatever the condition of the weather or the method of curing, it should be borne in mind that water on the hay from either dew or rain is more liable to cause trouble than moisture in the hay. Hay is ready to stack when no moisture can be twisted out of a bunch or wisp by twisting in the hands.

Feeding Silage

There are almost as many different ways of feeding cattle successfully as there are men who feed them. Grass is the natural food of all ruminant animals and in the state of nature cattle can get all the nourishment from it they require.

With domesticated animals, where in the case of the beef animal early maturity is sought, or where in the case of the dairy cow a large quantity of milk is desired, extra feed has to be supplied. In the winter the succulent part of the ration—what corresponds to the grass during the summer feeding—is provided in the shape of roots or silage. The other part of the ration consists of hay and meal. When the animals are turned out to pasture in the summer it would seem reasonable that the supply of succulent feed that was supplied during the winter would no longer be required. Many dairymen find that this is so. They find that if they do offer the animals silage they will not eat it readily. Evidently the cattle get all the succulent feed they require from the pasture. Other dairymen, however, find that their cows eat up the silage almost as readily during the summer when the pastures are at their best as during the winter months. The question naturally arises: if some dairymen can do without summer silage and claim their cows give just as much milk without it, would not the dairymen that do feed it get just as much milk from their cows as the others? On the face of it, it would seem that cattle should not require any more succulent feed than they would get on a good rich pasture if they are fed grain and meal to increase the richness of the ration. The safest plan, however, is not to try to answer the question at all, but to let the cows answer the question. Silage is about the cheapest food we can

feed them and if they seem to relish it during the summer we may be sure that it is doing them good. Animals after all are very much like human beings—"what's one man's meal is another man's poison"—and if the cows eat up the silage readily let them have it even if it does not agree with our ideas of balanced rations.

It Pays to Test.

In virtually any dairy district, probably among the herds supplying one factory, it is possible to find contrasts running something like this: One herd of 14 cows gives on the average 7,732 lbs. milk and 248 lbs. fat, while a neighbor's herd of 14 cows averages only 4,037 lbs. milk and 155 lbs. fat. Indeed, in looking over the records in eleven districts the average difference between the high herd averages and the low ones amounted to 4,639 lbs. milk and 140 lbs. fat per cow. This is certainly an extraordinary difference, and indicates that any farmer who does not test his cows will pay to calculate what cows can do.

Take it another way; In 1914, sixty patrons of two creameries began this cow calculation, cow testing. It was found in 1915 that their herds had made a gain over their 1913 record of 71 pounds of fat per cow, a gain of eight per cent. But on the other hand the 1913 patrons of the same two creameries who did not go in for cold calculations fell off 87 pounds of fat per cow, seventeen per cent. If the men not cow testing had made gains with their cows in the two years as those made who were testing, it would have meant an increase in the output of 58,362 pounds of butter! It pays to test. Record forms are furnished free of charge on application to the Dairy Division, Ottawa.—C. F. W.

FACTS OF SCIENCE.

Holland's mines are now producing coal at a rate of about 2,000,000 tons a year.

The production and distribution of electricity in Edinburgh has been made a municipal monopoly.

Spain has been practicing irrigation for more than a century, its first canal having been begun in 1814.

Russia maintains at Moscow an experiment station for the study of flax cultivation and manufacture.

A factory in France drives turbines with water from a reservoir on a mountain 600 feet above it.

A dredge built in Holland for the government of Uruguay crossed the Atlantic Ocean under its own steam.

For peeling oranges there has been invented a curved piece of bone with a nick at one end to cut the skin.

A Brazilian city uses a trolley car ambulance to transport patients to and from hospitals in its suburbs.

The government of South Africa has erected a large sugar mill to encourage the cultivation of cane in Zululand.

Rubber-covered canvas disks that prevent slipping are attached to the soles of new shoes for very young children.

A wire clip, to be screwed into a door frame, has been invented for holding milk bottles out of the reach of cats and dogs.

The world's largest stone statue, a figure of a patron saint that will be 240 feet long, is being carved from a rock on an island in Japan.

A power loom has been invented that is said to weave oriental rugs that so closely imitate the genuine handmade ones as to defy experts.

The Argentine government has made a large appropriation to finance a campaign against locusts, chiefly by propagating parasites of the insects.

Driven by a kerosene motor, a motorcycle has been invented that carries four persons seated ahead of one another and is controlled by the man on the back seat.

To lessen the smoke and gas in tunnels Swiss railroads are equipping their locomotive stacks with lids to be closed when a tunnel is entered, steam being exhausted beneath the engines.

THE STRENGTH OF A FLOWER

Sunflower Forced Its Way Through Asphalt Pavement.

A rock split asunder by a growing tree that has found lodgment in what was at first only a small crack is a familiar sight to most people. The force that a tree exerts in accomplishing this feat is tremendous, but relatively it is not equal to that exerted by the flower that Mr. John Burroughs describes in a recent book, "The Breath of Life."

One of the most remarkable exhibitions of plant force I ever saw was in a Western city, where I observed a wild sunflower forcing its way up through the asphalt pavement; the folded and compressed leaves of the plant, like a man's fist, had pushed against the hard but flexible concrete until it bulged up and split, and let the irrepressible plant through. The force exerted must have been many pounds. I think it doubtful if the strongest man could have pushed his fist through such a resisting medium.

Life activities are a kind of explosion, and the slow continued explosions of this growing plant rent the pavements as surely as powder would have done. It is doubtful if any cultivated plant could have overcome such odds. It required the force of the untamed hairy plant of the plains to accomplish the feat.

her eyes rested on... perhaps her lips trembled... one can control—but if... was so slightly that no... room could have sworn to... she sat down somewhat... when she had turned up... diamonds, he had reason en... tired, and the room was... Al once Jim, Al, and Anstruther... went to the table together, but Mrs... Rolt held up her hand.

"In order of precedence, please, gentlemen." And then with a little curl about her lips: "Our guest comes first," and young Fairclough came done nonchalantly and turned a card from his corner with somewhat overbearing air.

"You said, Combe, that I should not be able to find my way to Soda Creek?" Anstruther was still sitting on the table rolling his cigarette.

"That has nothing to do with the question. Would you mind coming here for a moment?" and he went to the window.

"That is the road to Soda Creek; the way we came?" Combe nodded.

"But that is the direct way, as the crow flies?" "Yes, only there's a bit of a canyon in the way."

"I know, but after?" "There wouldn't be any after. There's no way across the canyon until you come to the place where the road crosses it. It's four hundred feet deep with sides like the walls of a house."

"If there was a bridge across it, it would shorten the distance by a mile, wouldn't it?" "Yes, by two, I should think. But there isn't any bridge and the Indians ain't going to wait whilst we build one."

"Could one be built? How wide is the canyon?" "Not more than twenty or thirty feet at the Buck's Jump. It could be bridged there easily enough; but what's the good of talking. It ain't bridged."

"Where is the Buck's Jump. There, isn't it?" "Yes, right against that big lone pine with the broken top."

"Very nearly in a direct line for Soda Creek?" "In a plumb straight line. That pine might have been put there for a surveyor's post."

"So I thought," said Anstruther, and he stood there measuring the distance with his eye, and noting the landmarks.

Combe watched him, and at last, with an obvious effort, he said: "Forgive me, Anstruther. Perhaps you don't think it is my business, but I've got to speak. I know just how you feel, and it's the way a man ought to feel, but you know you can't go now. It wouldn't be a square deal to Miss Clifford."

"Leave Miss Clifford's name out of the question, please. I'm very much obliged to you for what you suggest, but there are some things you don't understand. I'm going, and there's an end of it."

"When?" "When I am ready," Anstruther answered, and left the room.

"Pretty rough on them kiddies, ain't it, Jim?" said Al, when Anstruther had left the room, "and she's dead stuck on him. But I guess he's right."

"Right?" snorted Combe. "Right? Just to think of himself? No I don't think he's right, and I'll take blanketed good care as he doesn't do it."

Whatever Al was going to say was lost, for at that moment the call sounded from the upper story. The rifles were wanted at the windows. With a rush the two men went to their places, and for the next twenty minutes they held their whole attention occupied by what they saw from their posts.

A cloud of dust was coming towards them at railroad speed, and at first they flattered themselves that Horseley and his specials had broken the cordon and were coming to their relief.

But the riders who emerged from the cloud were Chilcotens, reckless whooping devils, painted as none of the white men had ever before seen. Indians painted in British Columbia their greasy locks powdered with swansdown, and eagle's plumes drooping from their heads to half way between their shoulders.

"Pleased, mum, nurse says would you come at once as baby's been an' swallowed near a 'ole packet of pins an' she says don't be handily alarmed as luckily they're safety pins."

Her idea.

"My dear, I've an idea," said old Mrs. Godart to her caller. "You know we frequently read of the soldiers making sorties. Now, why not make up a lot of those sorties and send them to the poor fellows at the front?"

"What?" "Kinder sortin' out his odds and gettin' good and ready for his pass-sar."

Jim glanced quickly through the window and saw that the Indians were already loping back to their lines. Then he put his rifle up against the wall and left the room quietly.

Al noticed him and seemed about to follow him, but thought better of it, and muttering "Let 'em settle it themselves. It ain't my funeral," kept his place at the window.

Anstruther's door was wide open, but from where he stood Jim could not see into the room, neither could he hear anyone moving in it, but to prevent accidents he sat down and took off his boots, and then with them in his hand stole quietly along the passage and peeped through between the door and the jamb.

Anstruther had gone, but the room could not be said to be empty, for the floor of it was covered with mountains of clothes, as Jim had never dreamed of, piled pell mell in a great heap, whilst, as he said afterwards, there were 'boots enough for a battalion and coats like blankets at a potlatch."

(To be continued.)

HE HATES THE GERMANS.

They Insulted Sir Pertab Singh and His Cavalry.

Sir Pertab Singh is back on the western front with his famous Jodhpur Lancers, dubbed by Lord Roberts the "finest cavalry in Asia."

Though over 70 years of age, Sir Pertab was among the very first of the Indian princely princes to offer his services to the British Government when the war broke out. For nearly eighteen months he remained fighting the Huns in France and Flanders. Then Oriental etiquette compelled him to pay a flying visit to his native land in order to be present at the wedding of his nephew and ward, the young Maharajah of Jodhpur, with a daughter of the Jam of Nawanagar, better known to cricket enthusiasts as Ranjitsinhji.

And now he has returned once more to the scene of hostilities, his appetite for fighting still unsatisfied. There is a reason for this. Sixteen years ago Sir Pertab placed his services, and those of his splendid troops, at the disposal of the Indian Government, in order to proceed to China and assist in quelling the Boxer uprising there. This offer was gratefully accepted, and in recognition thereof Sir Pertab, who was already a maharajah, a rajah, a rajput of the rajputs, and head of the famous warrior barons of Oudh, was raised to the rank of major-general in the British army.

But when he and his men arrived before Pekin they found the German von Waldersee in supreme command. The Hun, a boor then as now, made game of the warrior-prince, and the young pups of Prussians on Waldersee's staff, sneered at his splendid cavalry, calling them "coolies" and "niggers."

Try and imagine the effect of insolence such as this on a member of one of the oldest and proudest races on earth, accustomed to be treated on equal terms by English gentlemen. Sir Pertab vowed some day to be avenged. So did his troopers, individually and collectively.

Years ago Sir Pertab swore not to die in his bed. He has been fighting for Britain all his life, as his father, the old Maharajah Takht Singh, did before him.

One of the earliest recollections of the young Sir Pertab, then a boy of thirteen, was seeing his sire set out with Havelock to give battle to the rebel sepoy during the great Mutiny. Later on he rode with the British up through the Khyber Pass, and into Kabul. He also fought under Gen. Ellis in the Mohmand Expedition, and in Tirah under Gen. Lockhart, where he was wounded.

Lord Roberts was for over forty years a close personal friend of his.

Not So Bad as Feared.

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PHARAOH'S PALACE.

Discovery in Egypt May be Home of the Oppressor.

The Museum of the University of Pennsylvania has made public a report from Dr. Clarence S. Fisher, leader of the Eckley B. Coxe, Jr., expedition to Egypt, in which he tells of what appears to be the discovery that Meremphat had in his palace at Memphis an archeological museum something like those of the present day. Meremphat was the son of Ramesses the Great, and by many is identified as the Pharaoh of the Oppression as described in the Book of Exodus.

The palace was discovered early in the present year, the report said. It was large and elaborately decorated, but at some time was destroyed by fire, traces of which are abundant. The palace was about 180 feet long and 100 feet wide and contained about 20 rooms. The throne room was a magnificent chamber of about 60x40 feet.

In describing this room the museum announcement stated that "it is probable that this throne room, if not the same, is similar to the one in which Moses and Aaron confronted the Pharaoh, demanding that the people of Israel be permitted to go. The authorities in Egypt admitted that a great discovery had been made.

In the rooms were found gold ornaments, scarabs, vessels, and vases. The most interesting find, the report stated, was a collection of relics, partly of the Stone Age and partly of the Sixth Dynasty (about 4500 B.C.), which indicated that Meremphat was a collector much like modern men or nations. The stone implements included knives, razors, sickles and arrow heads.

Can Cats Hear?

The acuteness of the average cat's sense of hearing is proverbial, but it is a proverb that needs qualifying. For example, many white cats are absolutely deaf, and though the idea may appear absurd at first sight, it is believed by some students that the color of a cat is associated with its sense of hearing. Among several imported Persians, or long-haired cats, from abroad, not one white one in the number has been able to hear the slightest sound.

Lurid Lighting.

"Gay dogs the Romans must have been in the olden days." "You're right! Think of going to bed by the light of the Roman candle!"



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