

AGRICULTURAL.

Care of Dairy Cows in Winter.

Cows should be fed in good comfortable stables and the arrangement of the feeding mangers should be such that each cow can have her food by herself so that it will not be pulled away and stolen from her by another cow, writes C. P. Goodrich. In this way the feeder can give each cow just the quantity he wishes and he will be able to know just how well she eats her food and how much she eats. The practice of throwing food of any kind out on the ground at any time for cows to drive and chase one another over, is always to be condemned.

I think it best to feed three times a day, and never feed at one time more than they will eat up at once. The feeder should watch his cows, and if one leaves at the time any of her food it should be taken away and not left before her, and next time feed a little less till she finds out just her capacity for eating. On the other hand, if a cow eats all that is given her quickly and from her actions seems to need more, she should next time be fed more.

For greatest profit cows should be fed to the full extent of their ability to consume, digest, and convert into milk the proper kind of food for milk production. They will consume more and do better if fed a variety of foods each day. They love a variety just as all other animals, man included. No man can be a good feeder and obtain the highest and best results in dairying unless he studies the art of feeding, and do to this he must love his cows and watch them while eating. He must feel the same kind of desire to please them and do the best he can for them by providing the right kind and quantity of food as a mother feels for her children when providing food for them.

The kinds of food that cows should have depends upon circumstances—what we have on the farm and the cost of those foods we have to buy—but it certainly should be palatable, and an effort should be made to have enough protein food to make, in connection with the cheaper and more carbonaceous food, a fairly-balanced ration. For best results some succulent food is necessary, such as ensilage or roots.

As good a daily ration as I ever fed was for 1,000 pound cows in full flow of milk, an average of thirty pounds of well-sorted corn ensilage, ten pounds of good clover hay, what dry corn fodder and oat straw they would eat, probably eight or ten pounds, five pounds of wheat bran, and five pounds gluten meal. The protein in the bran and gluten meal balanced the excess of carbohydrates in the corn food. Clover hay is a fairly well-balanced food for milk. If the main part of the coarse fodder is clover hay, it will do to feed more corn or corn meal than if the coarse fodder is Timothy hay and corn fodder. In the latter case it will not do to feed much corn.

Now, what I have been writing is a sort of general rule, but when we come to practice we find that scarcely any two cows should be fed exactly alike. Here is where the skill of the feeder comes in. He must know each individual cow and her capacity to make profitable use of food. It is not profitable to feed dairy cows so as to make them fat beyond a good fair condition. The food that goes to produce fat is wasted as far as dairy products are concerned.

Let me illustrate how I would feed: Suppose I had mixed hay and corn fodder for roughage, and plenty of corn and oats—cheap as they are this year. I would have for the grain part of the ration ground corn and oats and bran one-third each by weight. Now, cow number one eats up her food readily, her grain food being ten pounds given in two feedings daily. She gives a moderate mess of milk, but is putting on fat. I would reduce or entirely leave out the corn in her feed and replace it with bran, or, better still, gluten meal, or, perhaps, part cotton seed meal. This would, if she is a cow fit for the dairy, stop the tendency to lay on fat and increase the flow of milk. Cow number two feeds the regular ten pound ration, she eats it up greedily and gives a large mess of good milk. I increase the ration to twelve pounds, she eats it quickly and gives more milk; I increase it to fifteen pounds, she still eats it up readily and also eats a large amount of coarse fodder. She is making good use of her food, but with every increase in food there is a corresponding increase in milk; but she is all the time losing flesh. What shall I do? This cannot long continue. If she is not fed differently she will milk herself down to a skeleton and then the milk flow must of necessity drop or she cannot live. I will tell you what I will do. I will feed her more corn meal in place of some of the bran. I will change the ration gradually till I get her so that she can hold her own. Number two is a thin dairy cow such as the dairy man needs to make his business profitable. Now it will be seen why I say the feeder must become acquainted with his cows in order to make the most profit from them.

Whether the ground food should be fed wet or dry depends on circumstance. If cows take all the water they need for the production of milk (and it takes a good deal of it) without having it mixed with their food, then I say feed it dry. But if they have dry fodder and are watered but once a day and have to drink ice water at that, then I say they do not take water enough, and will do better to have their food wet, and the wetter the better.

The Value of Wheat Feeding for Hogs.

From many parts of the west we hear of successful results of feeding wheat to domestic animals. Its value as a food for cattle and horses, whether the whole grain is fed or its by-products, has long been well known, and the present experience has confirmed that knowledge. But the greatest good likely to result from the corn crop failure of 1894, and the consequent use of wheat in its place, will be the feeding of wheat to swine. Its value here, when the price makes it practicable, is incalculable. We have fed too much corn. We have for many years made this cereal the almost

exclusive food of swine, and we have thus brought on severe punishment. Exclusive corn feeding to hogs has given us a race of domestic animals which are debilitated at birth. No animal can be fed on such a highly carbonaceous food as corn without becoming physically demoralized. We do not think that first-class pork was ever made on such a diet. Swine thus fed, when slaughtered, always have more or less inflamed viscera, the result of impaired health. Perhaps the greatest harm resulting from this one-sided diet is that it impairs the animal's vitality and makes it an easy prey for many contagious diseases which a well-fed and healthy animal would readily resist. This has been a prominent factor in making hog cholera the destructive agent that it has so long been. With the range of clover pasture for the swine, and some wheat in the grain ration, this pest would soon cease to be formidable.

English Methods With Poultry.

The methods which prevail in England for growing poultry and their care vary so widely from those in vogue here that our readers may find something to interest them in following, gleaned from the writings of C. E. Brooke. Food should be mixed fresh for every meal, and fowls should have only what they eat—leaving none. Through the winter they are fed in the morning with a hot mess of middlings and barley meal. From November to March their midday meal is boiled barley and the later meal is wheat or maize. Now and then fowls in confinement should have a fresh piece of sod at which to pick. A little salt should be added to their food now and then, and occasionally a small quantity of Epsom salts. For a full day after chickens are hatched they need no food, and for the following week they should be fed chopped boiled eggs and soaked bread and milk, feeding them every two hours for the first fortnight. For the next two weeks they should have grits, boiled rice, barley or potatoes, followed later by bruised barley, wheat, or corn meal. During chickenhood four meals daily are best. The mother should have grain and meal. When molting, a slight addition of cayenne pepper to the meal, with some hemp seed now and then, and an occasional meal of minced raw onions will be found advantageous. The midday meal at all seasons should include some green food, and when winter approaches should include meat and fat, minced liver, or horseflesh. When fattening for market, the fowls must be kept sheltered. Mutton fat, chopped fine and boiled with milk, is desirable to add to the ground oats or buckwheat, and this is administered in small doses.

TROLLEY ROADS IN ENGLAND.

British Conservatism is Yielding—The City Owns the Permanent Way.

John Bull has at length come to the realization that there are such things as electric roads in the world, and that possibly they may be a good thing. An American syndicate has secured the franchise for an electric road in the city of Coventry, which has about sixty thousand population and the work is going ahead.

An experimental road of six miles was put down in the suburbs of the city of Leeds, and the city fathers of various cities and towns have been "juncteked" over to Leeds and introduced to the mysteries of the trolley system. The Coventry authorities were the first to yield to its seductions.

The method of building street railways in England greatly lessens the cost of installation to the promoting capitalist. The city puts down and owns the tracks or permanent way. The operating company leases the track for twenty-one years, and at the expiration of the lease it may be renewed, or the city may buy the plant and rolling stock at an appraised valuation.

The Coventry road has eight miles of track, which is all single track, but with long sidings. The estimated cost of rolling stock, poles, wires and power station is \$250,000. Everything is to be furnished from America, even to the poles for the wires. It was originally supposed that English poles would do. But when put up they were found unequal to the strain of supporting the wires, and the necessary poles had to be ordered from Philadelphia. If the innovation takes with the English public there will be a pot of money for the syndicate, which will probably be called upon to put in similar roads in nearly all the English cities. The conservatism of the English people on this subject seems to be as pronounced to-day as it was in the time when George Francis Train put down his first tramway in Parliament street, London, and was then compelled to take up his rails by the outraged and indignant public.

The Continental cities have taken more kindly to the electric railroad system, and in fact, the first trolley road in the world was in the streets of Berlin. This road had a trolley riding on a wire at the side of the street, with flexible wire connection to the car. The upward pressure system with the familiar trolley pole of to-day was a later invention.

A firm of English electricians have recently tackled the conduit electric road problem, and produced something in the nature of a small tunnel and motor therein with a projection which reaches through the slot and pushes the street car along.

Many Tongues.

What language does our Polly speak? Our precious baby tot? So many languages unique We call her polyglot!

Her Sole Ambition.

Old Hayseed gets a set of false teeth without his wife's knowledge. She discovers it and decides to have hers pulled to get even with him. Dentist—But, madame, those are good teeth; I must protest. Mrs. Hayseed—I don't care. Pull 'em out, I ain't goin' to let old Hayseed git the start o' me that a-way.

WEATHER INDICATIONS.

SURE SIGNS THAT FORETELL THE STORM OR CALM.

Buy Your Coal, Put Up Your Stoves, Stop Your Windows and Doors, For an Old-Fashioned Winter is Coming.

Hear frost is a sign of rain. Cold autumn a short winter. If rats and mice be restless, rain. Trees grow dark before a storm. After a warm autumn a long winter. It will surely rain if moles cast p hills. The more snow the healthier the season. Bearded frost is the forerunner of snow. A clear autumn brings a win' winter. If it rains before seven it will cease before eleven. Expect fair weather from one night's ice. A green Christmas makes a white Easter. A fog in February indicates a frost in May.

Rain is frequently augured by bearded frost. Tulips and dandelions close up before a rain. The note of a sand mole is a sure sign of frost. If it rains after 12 at noon it will rain next day. If it rains before sunrise expect a fair afternoon. A green Christmas will make a full churchyard. Three white frosts will bring a storm every time.

Rain long foretold, long last; short notice, soon past. If gnats are plentiful in spring, expect a fine autumn. A rainbow in the morning is the shepherd's warning. When wrens are seen in winter expect plenty of snow. If October is warm the following February will be cold. Doors and windows are hard to shut in damp weather.

Much rain in October indicates much wind in December. If a cock crows more than usual and earlier expect rain. If it rains when the sun shines it will rain the next day. Nests of hornets hung near the ground mean cold weather.

When rain comes from the west it will not continue long. If cats back their bodies and wash their faces, expect rain. Early frosts are usually followed by a long, hard winter. Fluttering bats and flying beetles forecast fine weather. The early arrival of katydids means severe winter weather.

Heavy white frost is a sign that warmer weather is coming. Black frost is a forerunner of a spell of dry, cold weather. Thunder is indicated by many falling stars on a fine night. Lookout for cold weather if the woodpecker disappears in the fall. If birds in autumn grow tame the winter will be too cold for game.

Expect cold and hard times if squirrels lay in great supplies of nuts. When wild ducks fly to the south it is a sign that winter is coming. Scarcity of squirrels in autumn indicates the approach of cold winter. Aching corns, raging toothaches and distressing neuralgias presage rain. The first three days in January indicate that of the coming three months. No falling stars on a bright evening mean a continuance of bright weather. If ice will bear a man before Christmas it will not bear a mouse afterwards.

Sept. 20, 21 and 22 rule the weather for October, November and December. Partridges drum only in the fall when a mild and open winter follows. Rain from the south prevents the drought, but rain from the west is always "best." Chipmunks that disappear early are sure signs of cold and extremely ugly weather. Black birds flocking together in the fall indicate a cold spell of weather. When the leaves of the trees curl, with the wind from the south, it indicates rain.

When the birds and badgers are fat in October a very cold winter may be looked for. An unusually clear atmosphere when distant objects may be easily seen means rain. If the crow flies south cold weather will follow; if north, a warm spell may be expected.

Turkeys perching on trees and refusing to descend indicate that snow will shortly fall. If October brings heavy frosts and winds the following January and February will be mild. When rheumatic people complain of pains and aches then look out for rains and storms.

If cattle leave off feeding and chase each other around the field you may safely expect rain. If All Saints' Day will bring out the winter, St. Martin's Day will bring out the Indian Summer. If goldenrod blossoms early you will need heavy clothes, for bitter cold weather will prevail.

If spiders spin the filaments of their webs long the weather will be serene for ten or twelve days. Gnats flying in compact bodies in the beams of a setting sun mean that the weather will be fine. When the birds of passage arrive early in their southern passage severe winter may be looked for. A good hydrometer is a piece of hemp. Roll it into a lump, and when it is damp it prognosticates rain.

Onion skins very thin, mild winter coming in; onion skins thick and tough, coming winter cold and rough. The whiteness of the breastbone of a goose indicates the amount of snow that will fall during the winter. The twelve days between Dec. 25 and Jan. 5 are the keys to the weather for the ensuing months of that year. If birds preen their feathers and wash themselves, afterwards flying to their nests, rainy weather is indicated.

When honey bees are busy laying in a supply of food you can depend on it that the winter will be a "corking" cold one. Frost that occurs in the dark of the moon kills fruit, buds and blossoms, but frost in the light of the moon will not kill.

When potatoes mature early and buck-wheat grows bushy branches cold weather is ahead and not very far ahead at that. If the moon is red or has many red spots, expect a cold and stormy winter; but if only a few spots are visible, the winter will be mild.

When muskrats build their houses two feet thick and begin early you can depend on it that the winter will be a long and mighty cold one. If the November goose-bone be thick, so will the winter weather be; if the November goose-bone be thin, so will the winter weather be.

Sheep rams and goats that spring around the meadow more than usual and are given to much fighting indicate that rainy weather is at hand. When the ivory-billed woodpecker goes to work at the bottom of a tree and goes to the top, removing all the outer bark on his way, it is a sure indication that there will be deep snow.

If a mole dig a hole two and a half feet deep a very severe winter is at hand. If the hole be two feet the winter will not be quite so severe. If the hole is only one foot deep, the winter will be a mild one. An old English authority says that the saying, "Everything is lovely and the goose hawks high"—not "hangs high," as is frequently quoted—is a weather proverb, meaning that when the wild geese fly high it is a sign of fair weather.

NO MORE ALPINE CLIMBING.

Fourteen Lives Lost Last Summer in the Treacherous Ice Fields.

Alpine mountain climbing is likely to be prohibited on account of its dangers, the severity of which has recently been emphasized by the finding of the body of W. Ruth, who was lost in the summer of 1893.

The finding of Ruth's body brings the known Alp disasters of 1893 to the number of fifty. The yearly average of persons who lose their lives in Europe because of a reckless passion for the climbing sport is thirty-three. The last season fourteen tourists died in the Alps by falling off precipices, an unusually large number, for violent tumbles are among the less frequent accidents peculiar to Alp climbing, the dangers of which are more often threatened by lightning, avalanches, rain of stones, high winds, snow-storms, intense cold and exhaustion followed by deathly sleep and famine.

The relatives of these fourteen unfortunate are clamoring for special laws prohibiting or at least restricting this DANGEROUS SPORT which counts among its enthusiastic supporters many distinguished persons, notably the Empress of Austria, the Queen of Italy, the Crown Princess Stephanie and her young daughter.

It was reported from the Tyrol town of Valcomannica that parts of the body of Ruth, who two summers ago failed to return from a tour over the Presena pass in the Adamello Alps, South Tyrol, had been recovered in a mountain crevice at the foot of the Pizgana Glacier. Ruth had been a well-known character among the Alp climbers in that neighborhood. He was last seen in August, 1893, at the village of Pinzola. He then informed the innkeeper that he meant to travel to Ponte di Legno, the mountain mentioned above. Several guides offered their services, but Mr. Ruth declined on the plea that he knew the way, as indeed he did, being familiar with every pass and precipice in South Tyrol.

He started in fine weather, but soon afterwards it became foggy. As he had not arrived at Ponte di Legno two days later, many of the expert guides of the district went out in search of him, dead or alive. They were unsuccessful, and the probable fate of the man, who was well liked among the people, was discussed, not only in the neighborhood where he was supposed to have died, but later

ALL OVER EUROPE. Alp climbing had been a mania with him for years and he had the reputation of a fearless and well-experienced tourist. A few days ago, says a dispatch from Valcomannica, a chamois hunter shot a buck on the Pizgana Glacier, and the body of the animal happened to fall into a deep crevice. The aid of some herdsmen was invoked to recover it and one of them let himself down into the crevice on ropes. He found the carcass at the bottom of the rent at the side of what appeared to be a human skeleton. Some remnants of clothing he gathered up and brought to light. The head had been well preserved in its icy inclosure and was recognized as that of Ruth, the likeness being reinforced by the identity of the clothing which he was known to have worn.

The supposition is that the tourist lost his way in the fog and happened to strike the dangerous paths of Lagoscuro, leading to the ice fields of Pizgana, instead of the pass of Presena. From there he was precipitated into the deadly depths below.

Bricks Outlast Stone.

Many persons think that bricks are not so durable as other building materials. This impression is the very reverse of the truth. No material is so durable as well made bricks. Bricks in the museum in London, taken from buildings in Nineveh and Babylon, show no signs of decay or disintegration, although the ancients did not burn or bake them, but dried them in the sun. The baths of Caracalla, the baths of Titus, and the thermæ of Diocletian, have withstood the injuries of time far better than the stone of the Coliseum or the marble of the Forum. The bricks of the baths of Caracalla did not very favorably impress the mind of an heiress from the great West who exclaimed when she beheld them, "Good gracious, old bricks, and a falling down, too! Why, I thought it would be as fine as any marble building in Chicago. If this is the baths of Caracalla, I don't care to see it. Let's go look at something else!"

POISONS IN DRY GOODS.

DEADLY DYES BY WHICH MANY FABRICS ARE COLOURED.

Celluloid is a Compound of Camphor and Gun Cotton, and is Highly Inflammable—Lurking Dangers to Which the Woman of Fashion is nowadays Subjected.

The microbes has been taking up so much of the public attention recently that people are beginning to forget that there are other poisons besides those manufactured in the private laboratory of this ingenious little worker. Yet arsenic can kill as well as tuberculosis, and lead is as fatal as diphtheria; and if we put the former on our cloths and rub the latter on our faces we shall one day repent it.

According to a Parisian physician who has been taking a census of the dangers that lurk in the boudoir of a fashionable woman, she is fortunate if she escapes being poisoned, and even if she does she runs great risk of being burned to death. In the first place, a great number of coloured fabrics are more or less poisonous. Many dyes are toxic. As is well known, arsenic is chiefly to be blamed for this fact, though the law forbids the use of arsenical salts in dyes.

Some persons are apt to think that the quantity of poison in a wall paper or a fabric is, after all, very small, but this is by no means the case. Certain stuffs contain more than two grammes of arsenious acid to the yard—particularly the gauzy green fabrics. Many accidents are caused by aniline colors, and above all by fuchsin and corallin, which are made by treating rosolic acid with ammonia. Fuchsin is not poisonous in itself, but rosanilin, of which this and many other coloring matters are salts, are obtained by treating anilins with oxidizers, of which two are as dangerous as they are common—namely, nitrate of mercury and arsenic acid; and it is rare to find fuchsin that does not contain

MORE OR LESS POISON. The observations of French physicians have shown that articles of clothing colored with this substance and placed in contact with the skin cause not only local eruptions but symptoms of disease throughout the system. For instance, cases of erythema and serious inflammation of the skin have been caused by wearing red merino stockings colored by the markers with rosanilin containing arsenic as an impurity.

This is only one of many examples of products, harmless in themselves, that become actively poisonous by reason of impurities due to some process of preparation.

But the unfortunate modern woman not only runs risk of poisoning herself with every article of clothing she dons, she may also be seriously burned by the explosives that she uses daily in the toilet. First, there are the articles made of celluloid—now found on every toilet table, though often masquerading as horn or ivory. Celluloid is a compound of camphor and gun cotton, and is highly inflammable, but, in spite of this, its cheapness and the ease with which it may be shaped have made it a favorite material for combs, hairpins and all sorts of small fancy toilet articles, ever for artificial teeth, whose wearers probably do not realize that they are transforming their mouths into animated bombs charged with gun cotton.

Among all these celluloid toilet articles, however, combs are the only ones that have hitherto caused accidents. THE MOST SERIOUS ACCIDENT

of this kind, or, at all events, the one that made the greatest impression on the public, was one that occurred in France. A little girl on her return from school was set to work at ironing near a stove. During her work she leaned constantly towards the hot stove so that her head was almost directly over it, and after she had been in this attitude for about an hour her imitation tortoise-shell comb, made of celluloid, caught fire all at once and her head was in an instant enveloped in flames. Her mother hastened to her aid and put out the fire as soon as she could, but not before a large part of the child's hair had been burned off and her scalp had sustained a serious burn about four inches square which was long in healing.

Less serious burns have resulted from wearing the long double celluloid hairpins with which women so often transfix their hair. When they bend over a lamp, or even a candle, the projecting part often comes in contact with the flame and takes fire like a match, but it is usually easy to extinguish it before it reaches the hair. There are fabrics, too, that are little better than explosive. Not to speak of the light, easily inflammable stuffs that should, there is a sort of cheap flannel called pilou, largely used for women's garments, especially wrappers and night-dresses. The surface is of variegated hue and covered with long, silky hairs forming a sort of down, and taking fire like flammable cotton when brought near a lamp, candle or open fire. The flame spreads rapidly over the whole surface, generally going out of itself, but often taking hold of the body of the fabric, giving rise to very serious burns. In December, 1889, a servant was burned in this way, and the French sanitary authorities condemned pilou as a dangerous fabric for use in making garments with flowing skirts.

Easy.

Client—You have saved my estate. How can I ever recompense you? Lawyer—I am disposed to make it easy for you, with several payments, you know. I am willing to take the estate as the first payment.

A Universal Failing.

Friend—Your son, I understand, has literary aspirations? Does he write for money? Father (feelingly)—Unceasingly.

Taking No Chances.

Raggy, for a tramp, you are in de best behaved feller I ever met. It's business, Duddy. I ain't anxious to get into no hot water. Fact is, I hate water of all kinds.