

DAIRY AND CREAMERY

MILK YOUR COWS CLEAN.

Otherwise They Will Tend to Dry Up in Short Order.
It is a well known fact that cows not milked clean will tend to dry up in short order, says Professor D. H. Otis of the Kansas college. Another important reason for milking clean is to get all of the butter fat, which is contained in a much larger per cent in the last than in the first milk drawn, as is shown by the following experiment which the college dairy has conducted, showing the importance of clean milking: Five cows that were giving a fair quantity of milk were selected and their milk collected in half pint bottles, each test contributing its share to every bottle. These samples were tested with the Babcock test, with the following results: Cow No. 8 varied from .6 of 1 per cent to 7.3 per cent. Cow No. 10 varied from .3 of 1 per cent to 6.6 per cent. Cow No. 14 varied from 1.6 per cent to 8.9 per cent. Cow No. 15 varied from 1.9 per cent to 4.8 per cent. Cow No. 20 varied from .9 of 1 per cent to 7.3 per cent. The results show a gradual, although not entirely uniform, increase in the per cent of fat from the beginning to the last of the milking, except with the last two samples drawn from each cow. Here the per cent of fat would take a sudden leap, amounting often to a third or a half of the total variation. This shows very clearly how important it is to get all the milk. By averaging the results it was found that the last quarter of a pint was worth from three-fourths to one and a half pint of milk first drawn from the udder.
Moral: Milk clean and get fat.

Convenient Cattle Rack.
R. M. Carroll in The National Stockman presents a plan for a cattle rack which does not waste feed and in which the animals will not get stuck. This rack is 5 feet wide at bottom and top and can be made any length; corners posts 6 by 6 or round poles 6 feet long set in the ground 2 feet; top end pieces 2 by 4 planed or spiked to posts; top side pieces 6 by 6, or 8 inch pole the length rack is wanted, placed on inside



HOME MADE RACK FOR COWS.
of posts; notch in a 3 by 6 piece 18 inches from the ground in posts at each end, and on the center of end pieces lay a 6 inch pole. This pole makes the bottom of the rack. Then take 1 1/4 by 6 boards 7 feet or flat rails and make a V shaped rack by nailing one end to bottom pole and top end to top pieces or poles. Board up the ends with any scrap lumber, and on each side put 18 inch bottom board and 10 inches above this place a 6 inch top board, and by this you will have a manger to catch any hay the cattle may drop in pulling their hay out of the rack, and by stripping this manger sheep can be fed when not used for cattle.

Canadian Cheese.
About 13 years ago, says Professor Robertson, Canadians adopted a systematic plan of cheesemaking, thus producing a uniform quality, which found favor in the British markets. Of late the taste of British consumers has changed, and the demand now is for a mild flavored cheese. It is necessary to cater to this demand, for the market must be retained, and unless Canadian makers cure their cheese at a low temperature their trade will decrease. The curing room ought to be kept at 61 or 62 degrees F. A warm curing room makes the cheese strong. If the temperature of the curing room goes up to 90 degrees F., there will be awakened in the cheese dormant life, which cannot be easily killed. Some makers have one stove in the curing room, and the result is that the cheese near the stove roasts, while the temperature at a distance from the stove is allowed to go down to 60 or 40 degrees F. Improvement in the curing room is needed and a uniform temperature should be maintained. Double doors and windows should be put on and kept on all summer. The walls and floors should be made tight and close by two thicknesses of building paper and one thickness of tongued and grooved lumber. An old curing room should be washed with lime to kill the fungous growth. A curing room in the cellar, properly ventilated, would make a good curing room, and the cheese would not sweat.

Cheese Cans.
Experiments have shown that milk stored in sterilized cans will keep nearly twice as long as when kept in cans washed in the ordinary way. To clean a can thoroughly or free it from germs, C. B. Lane of the New Jersey experiment station states that it must first be scrubbed, then scalded out with boiling water, care being taken that it is boiling, or better still, use live steam under pressure. No living organism can withstand steam, not even bacterial spores, although some of them will resist a temperature of 200 degrees F. In dairy houses supplied with a boiler it can easily be managed to turn cans over a jet of steam having a pressure of 15 or 20 pounds. After steaming cans should be kept bottom side up, as bacteria tend to go downward. There are patent "milk can washers" on the market which run by power, but for the ordinary dairymen hand brushes will be found just as effectual and more economical.

GOAT MILK.

Excellent For Children and Safe From Tuberculosis.
Mr. H. S. Homes Pegler, in the London Bazaar, quotes from an address made by Sir William Broadbent before the Technical college at Huddersfield as follows: "Until the last few years the idea was that consumption was a disease which was in the family, a constitutional tendency which could only be accounted for by heredity and against which it was vain to strive, an inevitable evil to be submitted to as a decree of inscrutable Providence. Added to this was the impression that it was incurable, and thus efforts to relieve and cure it were paralyzed. But these ideas, I am thankful to say, are wrong. Tubercle is not inherent in the constitution. Consumption is not an inevitable disaster inflicted by a mysterious fate. It is, on the contrary, one of the products of men's ignorance and carelessness. We now know how it is brought about, and it is within the power of man to prevent it. Consumption is 'caught,' to use a familiar expression, from a pre-existing case—not let me add at once, communicated directly from person to person by breathing the same air or even sleeping in the same room. The agent in the causation and transmission of the disease is the tubercle bacillus, a minute rod-like organism which multiplies at an alarming rate." After mentioning dust as one of the means by which consumption is spread the lecturer continues: "But there is another way in which tuberculosis is disseminated, and that is by means of milk. Cows are very subject to tuberculosis, and at a certain stage of the disease tubercle bacilli are present in the milk. It is through milk so contaminated that children come to have tuberculous disease. The disease of bones and joints to which children are subject are probably also traceable to milk. Hampeck, hip joint disease and the disease of knees, elbows, etc., which cripples so many children—perhaps so is lupus—and no doubt tubercle is often implanted by milk in early life, which develops later into consumption."

Sir William Broadbent subsequently goes on to say: "It is interesting to note that asses and goats do not suffer from tuberculosis and to bear in mind that the shrewd physicians of past days used to order asses' and goats' milk for persons threatened with consumption." This statement, says Mr. Pegler, coming from a medical authority of such high standing, brings the claims of the goat before the public in a very conspicuous manner and should give an important fillip to goat keeping. It is, however, no new discovery, having been known to the scientific world for many years, and yet in all the lectures and treatises on tuberculosis how rarely do we find it mentioned.

From this case to a large proportion of the medical profession and to the bulk of the general public the important fact above mentioned is probably quite unknown. In France this subject has received more attention. Professor Nocard stated some seven or eight years since that out of 180,000 goats and kids brought to Paris for slaughter at the abattoirs of La Villette every spring the meat inspectors of that city failed to detect a single case of tuberculosis. He even added that inoculation fails to introduce the fatal bacillus into the system of the goat, although I believe the statement has since been questioned.

Any way, I have been told by veterinary authorities in this country that attempts made in England have failed. Goats' milk as a diet for children has many advantages over cow's milk, as I have often demonstrated, but this one great virtue transcends all others, and it is inconceivable that parents knowing this and having the opportunities and accommodation for goat keeping should not avail themselves of so simple and economical a means of at once providing their children with the most easily digestible and most nourishing of food and safeguarding them from one of the greatest evils that civilization of the present day is subject to.

Good Rules For a Butter Factory.
The Waterford (Me.) creamery holds closely to the following rules with its patrons, and the result is quality in the product: All tanks in which milk or cream is set shall be kept clean and sweet and located where they will not be affected by odors from the barn nor any other odors which may be injurious to the flavor of butter. The temperature in said tank shall be no warmer than 47 degrees F and not cold enough to freeze, 45 degrees being the most desirable temperature, and that cream shall be kept in such tank until taken therefrom by the collector. Collectors shall be inspectors of cream and shall be forbidden to take any which is sour, dirty or frozen or for any reason which in their judgment renders it unfit for the manufacture of high grade butter until such objection or neglect on the part of the patron is corrected. It shall be the duty of all patrons to report at the factory any incompetency or negligence on the part of any collector in his capacity as such. All errors should be reported at once for correction. The fact that the success of a creamery depends far more upon the quality than upon the quantity of its product necessitates that the practice of any patron tending to lower the standard of that product should be discouraged and such patron be dropped from the list, in justice to all concerned.

Wasting Costly Feed.
There is too much pouring of costly feed into animals which are unprofitable and which are handled unprofitably. There is too little attention given to the kind of cows we keep.

FARM AND GARDEN

ENSILAGE CORN.

Favorable Words For the Leaming as to Yield and Quality.
The changed conditions brought about through the use of the silo, together with an increasing use of siloing crops, have developed an interest in knowing the relative value of crops used for these purposes. Their real value must be solved by the individual. Conditions and kinds of soil, the domestic animals kept, together with conveniences and facilities for handling the crop, go a good way toward solving the problem. Recognizing these facts, the New Hampshire station has been testing various forage plants for the last three years, and its experience with ensilage corn is reported as follows by Professor F. William Rana: Many varieties of ensilage corn have been grown at the station for the past few years, but the question resolves itself down to two varieties, which are our conditions—namely, the Leaming and the Sanford. The former is preferable, we believe, for the southern part of the state, and the latter perhaps for ensilage here at the station. The Sanford is too well known to farmers generally to need any recommendation. Ever since 1888 this variety



has been the main crop here until three years ago. Last year we planted about half the crop to each. The present season fully three-fourths of the ensilage crop was the Leaming, which is a white flint, the Leaming is a yellow dent corn, and is one of the earliest grown. The ears are large and handsome, with deep grain and a small cob, from one to two feet taller than the Sanford. It is very leafy and usually produces two good ears to the stalk. It adapts itself to a medium size, and the stalks vary kinds of soils equally as well as the Sanford.

The comparative yields of the two varieties during the past seasons have been from two to four tons per acre in favor of the Leaming. Not only has the Sanford done better, but Professor Morse, who has had charge of the feeding experiments, tells me that the ensilage is equally as good as that of the Sanford, and changing from the one to the other makes no perceptible difference in the milk flow or its composition. It is hoped that all who are interested in ensilage will give the Leaming a small trial. The cut is a photograph of four varieties. Beginning at the left hand side, they are Moby's Prolific, Leaming, Pisers and Sanford.

Sugar Beets and Sorghum in Ohio.
The general results of analyses of sugar beets for 1898 least show that they were less rich in sugar and showed lower purity than in 1897. Many fine plots of beets were grown in the state, however, notwithstanding these less favorable results. Taking the experience of the two seasons, it is evident that the problem of profitable beet sugar production is not yet solved. For the northern third of the state at least, the state station desires that tests should be repeated by those who have had experience in growing beets in 1897 and 1898, and to this end it will furnish tested seed in quantities sufficient to plant one-fourth to one-half acre of beets to such as will undertake to carry out the test and report the results as in 1898. The station also offers to send out sorghum seed raised under the auspices of the national department of agriculture at Medicine Lodge, Kan. It desires to send this sorghum seed especially into the southern counties, where experience has shown the conditions to be unsuited to the culture of the sugar beet. Farmers willing to cooperate should send their addresses at once to the experiment station, Wooster, O., stating the area of land which they are willing to cultivate.

Spray Early in Spring.
"The first spraying should be done early in the spring, before the buds open, and it must be done thoroughly. The second should be done after the trees are through blossoming, while the third may come 18 to 20 days later. The fourth spraying is due about three weeks later. A tree is sufficiently sprayed when the drops of the mixture are seen hanging from the branches and leaves. Many orchard trees besides spraying need a thorough scraping, as in the case of the elm trees. Then the brush and other waste matter, including all dead trees or badly diseased ones, should be removed from the grounds and burned. Do not leave it near the trees or in the roadway, for the eggs deposited therein will hatch in the spring. If there are dead trees or badly diseased ones here and there in the orchard, cut them down and burn them," says an Orange Judd Farmer correspondent.

FINE TRIMMINGS.

Rich Decorations in Embroidery and Application.
Embroideries upon cloths, applications of velvet upon cloth, galloons and incrustations are more than ever the order of the day, having had great success during the entire season and showing no symptoms of a decline in favor. Applications of cloth, cut in elaborate designs on satin of a lighter shade, compose rich ornamentations for the edges of skirts and tunics and for yokes, plaisters and revers. Very elegant also are the incrustations of velvet on cloth or silk, and a costume may be thus decorated without exorbitant expense, since the velvet motifs may be purchased separately and applied with embroidery stitches or sewed down under a narrow cord. Gulpure motifs may be used in the same way, and also the heavy de-



signs in worn lace, where the connecting mesh has become broken and the lace is useless. The chief difficulty in making these trimmings at home is the time necessary to their proper construction, but they may take the place of ordinary fancy work, and under deft fingers the process is not very long. The illustration given today shows a costume of olive green bengaline. The skirt has seven flat bias ruffles, headed by two bands of white velvet embroidered with black, combined with narrow bands of dark green velvet. The bodice is of finely plaited olive bengaline trimmed with the olive green velvet. The collar is of dark green velvet, with bengaline tabs trimmed with the olive green velvet and a choux of black plumes and a choux of olive velvet with gold pins. JUDIC CHOLLEY.

TUNIC COSTUMES.

Many Ways of Varying the Second Skin.
In contrast to the long lines which have prevailed lately by reason of the flowing cut of sheath skirts and princess gowns, the tunic skirt appears as a pleasurable change and promise to be a marked success. Its approach was invidious, seeming to be a natural result of that freedom which fashions permitted in allowing the form of the skirt to be different from the circular flounce which was moulded upon the figure. The flounce gradually assumed different forms, rising at the back and diminishing in front or designing forecoats, and so at last it has detached itself from the upper part and appears as a separate long skirt, the other remaining shorter. The tunic, once freed from its rigid and formal, takes all sorts of fantastic



Evening Gown.
It is open or closed, pointed, shapely, shorter in front or the side or at the back, crossed or in the redingote style. The tunic is a little more ample than the lower skirt, and the seams where the breadths are joined are concealed as much as possible. It is not lined, as a lining would increase its weight and is quite unnecessary. The lower skirt is always required, and no further re-enforcement is required. The picture shows an evening gown of pale green velvet. The skirt has applications of jet embroidery and is partly veiled by a pointed tunic of black gauze, which has a satin border embroidered with jet. The bodice is entirely covered with draped gauze and has embroidered bands like those on the skirt. Jet straps cross the shoulders and also the top of the sleeves, which fall off the shoulders. The sleeves themselves are of wrinkled gauze, unlined. JUDIC CHOLLEY.

FASHION NOTES.

Bright Colors and Rich Trimmings Predominate.
Tunic costumes are made sometimes with a shorter second skirt over the first, substituting with a princess body on the principle of the redingote. For short women a long tunic over a lower skirt which does not flare very much is most becoming, while a taller figure may wear the short tunic with a more ample lower skirt. Velvet is a great resource for rich toilet for day or evening wear and for bright



DRESSING SACK.
bodies to accompany neutral tinted or dark skirts. In spite of all efforts to do away with it, the bodice differing from the skirt still flourishes. Such costumes are lavishly trimmed with all the elaborate decorations which the market now affords. The more they are ornamented the more fashionable they are. They are carefully fitted at the back and around the waist, although the front is often full. The sleeves are long and close, trimmed profusely, but without stiffness. An illustration is given of a novel dressing sack, which is a compromise between the familiar combing towel and a jacket, and has a yoke in front, being laid in pleats at the back. The front is gathered to the yoke, and the side edges of both back and front are finished with a ruffle, which passes across the shoulders. There is also a ruffle around the neck. The garment fastens on the left shoulder. JUDIC CHOLLEY.

ACCESSORIES.

Important Additions to the Fashionable Toilet.
Sears of embroidered crepe de chine and of liberty gauze form elegant and fashionable belts. The Swiss girde of black satin, embroidered with crystal drops, placed close together, is a brilliant accessory. The skirt and the bodice and the girde being worn with a bolero. These boleros are often very brilliant also, being composed of narrow strips of silk, ribbon, lace and studs with sparkling and cabochons. As an example of fashionable color combinations may be quoted turquoise cabochons and emerald green sprangles on dark blue bands. Infinitesimal buttons, quite useless as buttons, are employed as a decoration, be-



Velvet Bodice.
ing arranged in lines, groups and clusters, designing motifs and enriching embroideries. Bridesmaids usually carry flowers at a wedding, but their bouquets, like that of the bride, are quite small, quality more than quantity being desired. Very costly gowns are chosen, but few are used. The gown of the bridesmaid must be white or light in color, but not necessarily of silk, foliage, are peculiarly apt on white, and gray hats. Waterproof woools and silks are now obtainable and are used for traveling gowns and wraps. A very useful garment is a long redingote of gray or beige waterproof cloth which will cover the entire costume. The general form of skirts remains the same—flat and tight at the top, flaring and long at the foot—but the variations in color and material are infinite. Sometimes

The Bacon-Shakespeare Folly.
Concerning the Bacon-Shakespeare folly, a word must suffice, says Dr. John Fiske in The Atlantic. As I have elsewhere shown, the doubt concerning the authorship of Shakespeare's plays was in part a reaction against the extravagances of doting commentators, but in its original form it was simply an issue of frank. The unfortunate lady who gave it currency belonged to a distinguished Connecticut family, and the story of her madness is a sad one. At the age of 84 she died in an asylum at Hartford, two years after the publication of her book, "The Philosophy of Shakespeare's Plays Unfolded." The suggestion of her illustrious namesake and perhaps kinsman as the author of Shakespeare's works was a clear instance of the symptom of paranoia, and her book has all the hazy incoherence that is so quickly recognizable in the writings of the insane. A friend of mine once asked me if I did not find it hard to catch her meaning. "Meaning?" I exclaimed. "There's none to catch."

SKIRTS.

These Continue to Cling, Ripple and Trail.
Skirts are perfectly tight around the top—so tight that there can be no increase in lightness, for every plait has been eliminated, and even at the back the stuff is drawn entirely tight and plain. Of course careful fitting is necessary, but the darts are hidden in the seams as far as possible, which is not difficult where there are several seams. Where there are not, however, the darts are kept small and are pressed very flat, so as to be hardly visible. It is always better to have two small darts than one large one, as the large one is apt to leave a bagginess in the skirt where it terminates. The circular, rippling effect still holds its own at the foot of the skirt, which is long and flaring. The charms of these graceful garments is much diminished, however, when they have been worn for



SPRING COSTUME.

walking in the street several times and have swept up the assorted dust and debris which clutter the ground. If a tailored skirt is worn in the street, it should always be held up. A pretty pointed bodice will cross the set, and unattractive will be avoided. A picture is given of a costume of turquoise satin cloth. The skirt opens at the side over a plaited panel of light mauve bengaline, crossed by torsades of turquoise velvet, fastened by choux with jeweled buttons. The bodice forms a hollow plait in the middle of the front and opens at the left side over a plaiting of light mauve bengaline and choux like those on the skirt. The sleeves of turquoise satin cloth are open at the shoulder, where plaitings of mauve bengaline appear, with velvet bands and choux. The hat of turquoise satin is trimmed with light mauve silk, jeweled buckle and fancy feathers. JUDIC CHOLLEY.

FASHION NOTES.

Items Regarding the Wardrobe of the Period.
Hats of white or pale gray felt are much worn. They are trimmed with white or bright colored velvet. Long fashions, flexible and brilliant, are employed and are either plumes of the argus pheasant or feathers composed of small, overlapping feathers. They are curled around the crown or carried along the brim of the hat. Parma violets or shaded violets with foliage, are peculiarly apt on white, and gray hats. Waterproof woools and silks are now obtainable and are used for traveling gowns and wraps. A very useful garment is a long redingote of gray or beige waterproof cloth which will cover the entire costume. The general form of skirts remains the same—flat and tight at the top, flaring and long at the foot—but the variations in color and material are infinite. Sometimes



SPRING HAT.

The skirt buttons at the back, sometimes at the side, and are used for a side panel or a tablier. It assumes a turric form or consists of two or three circular ruffles or bands of stitching or ribbon simulating superimposed skirts. The great aim of the dressmaker is to conceal the darts and seams as much as possible and to hide the underdrift of the skirt. The illustration shown today is of a spring hat of wood brown the straw. The underdrift of the brim has three raised bands of the same straw. Around the brim is a drooping of cheery velvet veiled by capucin tulle and at the side a cluster of edelweiss, with foliage. The brim is lifted at the back, where are placed a choux of capucin tulle and another of red rose. JUDIC CHOLLEY.