

# FARM GARDEN

## FEED LOTS.

Brick Paved Yards With Shelter Give Satisfaction. Muddy feed lots are an unprofitable as well as disagreeable feature in cattle feeding, especially when no provision is made for shelter. In a sum-



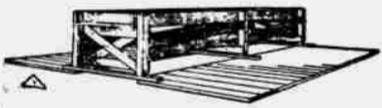
BRICK PAVED FEED LOT.

mary of replies to a circular of inquiry regarding the methods followed by practical feeders compiled by H. W. Mumford and L. D. Hall of the Illinois experiment station the question of muddy feed lots was considered. Notwithstanding the fact that the disadvantages of mud and dirt were recognized, only thirty-six of the 500 and more cattle feeders who furnished information on this point reported definite provisions against such conditions. Of these ten have the surface of feed lots paved or otherwise artificially covered and fifteen use rock, gravel, cinders, bricks, planks, corncobs or sawdust alone and in combination in various parts of the lot—for instance, about the feed troughs, water tanks, sheds or gates.

Ten of the correspondents state that they have made the lots dry enough for feeding purposes by a tile drain, while two report that the yards have been graded and the mud and manure removed by means of dirt scrapers. Several of those who use coal cinders for filling the muddy portion of the lot state that care must be taken to keep them covered with straw, cornstalks or other bedding material in order to avoid injury to the feet.

The first cut shows a brick paved feed lot, with convenient shelter, water and feeding arrangements, designed to accommodate about fifty cattle, which has given satisfaction. The pavement is 24 by 80 feet and is made of brick laid flat on six inches of gravel packed until solid. The curbing consists of curbstones eighteen inches wide and three inches thick set edge-wise. Feed bunks were placed in the shed. The shelter consists of a building 20 by 26 feet, with two wings, both 20 by 30 feet. The upper floor of the middle position is used for storing dry corn fodder, which can be conveniently cut and fed through an open shaft to the feeding bunk below.

The second cut is a feed bunk, with platforms for use in a muddy lot, which is inexpensive and has proved satisfactory. Platforms of the sample described were 16 by 6 feet and were



FEED BANKS FOR MUDDY LOTS.

[There are three advantages in the floors. The feeder always has a dry place to walk when putting in feed; the cattle are out of the mud and not in a strained or cramped position while feeding; by having the floors six feet wide all wasted feed and droppings fall upon the floor, and the hogs get all before it is lost in the mud.]

made of two inch bridge plank cut six feet long. The feed bunks were made in the usual way, two feet six inches high, three feet wide and sixteen feet long.

### Winter Protection For Orchards.

One of the most important points in preparing bearing apple trees for winter, in my opinion, is to remove all rubbish that may afford shelter for mice or other vermin, says a writer in American Agriculturist. Be sure there are no declivities at the immediate base of the tree. A slight mounding is good. At all events leave no hollows that will hold water to freeze at times of sudden falls in temperature, thereby greatly damaging trees. If mice or rabbits are feared, protect with wire netting. Cut with shears into proper sizes, roll around an old broomstick or any round object to give it a circular shape, the stick removed, and the wire will spring around the trunk and hold itself in place. See that all drains are in good order.

### Economic Position of Farmers.

A matter of great importance in its bearing upon the increased value of farm lands is the new economic independence of farmers, fundamentally growing out of their improved financial condition. Farmers now occupy a strong economic position, founded upon the tendency of the consumption of some important products to increase faster than population does and upon the tendency of the desires for these products to increase faster than the production does, so that with respect to these products consumption is close upon the heels of production.

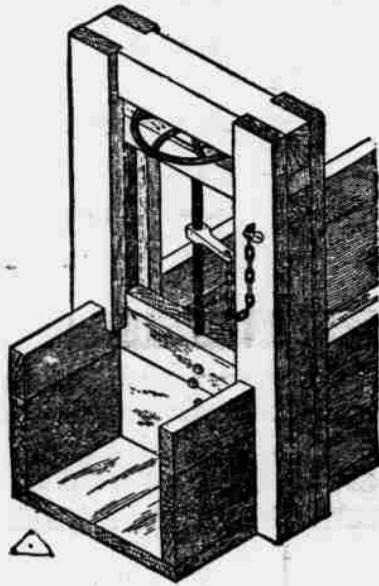
### Pruning Trees.

Deciduous trees may be pruned at any time after freezing weather sets in, when the sap will have run out of the branches. Landscape gardeners, as a rule, leave the pruning of trees and shrubs until February. Care should be taken to cover all large wounds with gas tar or linseed oil paint to prevent decay.—Country Gentleman.

## FARM IRRIGATION.

Convenient Type of Head Gate For Private Ditch.

Each farmer needs a head gate to control the flow from the main or branch canal into his private ditch. This head gate should meet the requirements of both the canal company and the farmer. The interests of the company demand that it shall be water tight when closed, large enough to admit the necessary flow and so made that it cannot be raised above a given height. The farmer is likewise interested in having a substantial head gate of ample size, but in addition he desires it to be designed in such a way that he can, when he chooses, close it partly or altogether. The head gate is placed at the edge of the canal, and either a wooden box or pipe conveys the water under the embankment of the canal. When a wooden pipe is used a convenient type of head gate, as described by S. Fortier, is that shown in the cut. The box, as shown, is about twenty inches wide and seven inches deep inside, and the gate which is made to fit this opening consists of two thicknesses of one inch boards. The upper part of the gate



LATERAL HEAD GATE.

stem is a round steel rod threaded and the lower part a piece of band steel welded to the rod. This flat portion is imbedded between the boards of the gate and fastened with bolts. The gate is operated by means of a cast iron hand wheel, held in place by two cross timbers, which in turn are supported by posts resting on the box. The special nut, attached to a chain and locked, prevents the gate from being raised beyond a fixed point, yet it does not prevent the gate from being partially or wholly closed.

## BEET PULP.

Some Results of Feeding It to Cows and Sheep.

In regard to beet sugar making and the use of beet pulp for stock a writer in Orange Judd Farmer says, among other things, that the industry is growing, which means a continually increasing acreage of sugar beets and a greater supply of beet pulp each year. The pulp has a feeding value and is returned to farmers who want it for feeding. In view of this fact and to give farmers not conversant with the value of pulp some idea of its worth as a stock food I will recount my experience.

When fed to milk cows it was found that the dry matter of beet pulp and corn silage were of equal value, but owing to the high percentage of water in beet pulp twice as much of it is required to furnish a given amount of dry matter as of corn silage.

### Pulp Saves Other Feeds.

When twenty to eighty pounds of pulp were fed per day there was a saving of four to fourteen pounds of hay. The pulp had a most beneficial effect on the milk yield. Most of the cows were decreasing in milk flow at the time pulp feeding began, after which there was an increase.

### Lambs Made Good Gains.

Lambs made as good gains on pulp as on corn at the Colorado station. One ton of pulp was considered equal to 200 pounds of corn; two pounds of sugar beets were found to be equal to about one pound of pulp. According to this experiment, it paid to sell beets and buy pulp. In a trial with four lots of lambs a ration of pulp and lucern made a gain at less cost and gave larger profits than rations of lucern, pulp and grain, lucern and sugar beets or lucern, sugar beets and grain. Pulp fed sheep were weak boned, not very fat, but produced mutton of good flavor. Lambs fed pulp in large quantities had soft flesh and shrank heavily when slaughtered. It is recommended that pulp be fed to greatest extent at commencement of the feeding period.

### Winter Wheat States.

A notable increase in the production of the crop has taken place in Nebraska. Fifteen years ago the proportion of winter wheat to the total wheat production of the state amounted to about 15 per cent, while at present the spring wheat produced bears about the same relation to the total annual yield. Nebraska now ranks second among the winter wheat producing states, Kansas standing first.

### Grown on Dairy Byproducts.

Some French farmers grow their pigs slowly for several months and then fatten them quickly. This prevails among the small farmers, many of whom use no grain except during the last two months, the pigs being grown on dairy byproducts and kitchen slops.



I wish to consider that one trial of all dairymen, the clinging of the manure to the thighs and hocks of the cows, writes W. J. Elliott in American Agriculturist. I have heard it said that this is easily overcome if the dairyman makes it his chore to brush down the thighs of the cows every day. It is a fact that it is not a big chore if we look to the bedding and the brushing each day. At present I am practicing in my dairy a system of keeping clean the cows' thighs. It consists of the clipping very short of the hair on the thighs, hocks and tail of the cows. The accompanying illustration shows what I mean. You will find the portion of the cow's thigh that is clipped is below the dotted line.

With an ordinary pair of horse clippers cut very short the hair from below the hock to a line drawn from the stifle to the tail head. The horse clippers may also be used for clipping the udder, but the clipping of the tail is difficult unless we have some one to hold it. Now, when the cow gets up, any litter that may cling to her thighs will dry very quickly because it is so close to the hide. When dry it is very easily brushed off and the thigh is as clean as ever. If the thighs are not clipped and the long winter coat of hair becomes wet with manure we all know what a long time it takes it to dry even if brushed off as clean as possible.

This system has worked so successfully and it takes such a short time to clip the animals that I clip not only my cows, but my steers. It is really wonderful how clean they can be kept with very little care when they are clipped in this manner. Besides this, with my steers, we clip a ridge two widths of the horse clipper right along the backbone from the tall head to the back of the head. This is just the place, especially on the steers, where the hair, in a measure, is standing on end and furnishes a splendid position for dust and dirt to drop directly into the hide. When the hair is cut short the slightest brushing will prevent the collection of dust and dirt in this manner, and thus the steers have not that restless, itchy feeling along the shoulders and back.

This system of clipping the cows and steers is practiced regularly twice each winter. Two of my men clip ten cows in an afternoon before milking time, and I certainly figure that these few hours are saved ten times over during the winter by the ease with which the cows are kept clean.

### Concentrated Dairy Foods.

In experiments to determine the best forms of roughage for dairy cows along with concentrated foods the Pennsylvania station found that where grass is not available silage was best. Some dry fodder or hay should be fed along with the silage. The experiments show that corn stover can be used to replace timothy hay with excellent results and a considerable saving of cost. If grown in a rotation, timothy hay should be sold and corn used for the dairy animals. Pure cottonseed meal contains a larger per cent of digestive protein than gluten meal and is much richer in fertilizing qualities. It will in most cases prove the best feed to produce milk and butter. As cottonseed meal is often adulterated, farmers should require a guarantee of 42 to 46 per cent of protein. Wheat bran is one of the finest of dairy feeds, but it contains only about one-third as much protein as cottonseed meal and often costs about the same per ton; therefore the dairyman is paying three times as much for each pound of protein. If the dairyman is obliged to buy feed, the most concentrated will usually prove the most economical.—Farmers Advocate.

### Weeding Out.

Whether the cows are grade or pure bred, vigorous selection must still be practiced. In order to select intelligently it is necessary that accurate records be kept of the cow's performance. We need not know what the herd averages, but we must be able to pick out the poor cows that are bringing the average of the herd down. A man says he knows his best cow without bothering with the milk scales and the Babcock test, but experience on trying both ways shows that he does not always know. Frequently the cow that he thinks the best turns out the poorest, says Otto Irwin in Farm Star.

### Overhauling the Herd.

This year would be a good one to convert those unprofitable milk cows you have been "boarding" so long into beef. Be sure you do not discard your good cows when you begin overhauling and thinning out your herd, for often the most unpromising cow in the lot from external indications is the best. The sure way to know what is what is to weigh and test the milk from each and all your cows. After you have made a thorough test of their dairy capacity you can rid yourself of the boarders to better advantage. This will be a good time to begin improvement, says the Farmers Advocate.

## CARE OF DAIRY UTENSILS.

Some Valuable Points on Keeping Them Clean and Sanitary.

The first requisite is to purchase dairy utensils that can be easily cleaned, which have smooth, hard and non-porous surfaces and corners so made that they are easily accessible to a brush or cloth. Unnecessary corners and angles should be avoided.

The principal things necessary for keeping utensils clean are hot water or steam, some alkali and a scrubbing brush or coarse cloth, combined with plenty of elbow grease to make these agents effective. All utensils should be cleaned immediately after using. The method for cleaning varies slightly, according to what the utensils have contained. If they have been used for milk, they should first be rinsed with cold or lukewarm water, so as to wash off the viscous albuminoids, which if subjected to boiling water would coagulate and adhere firmly to the tin, thus becoming difficult to remove. They should then be thoroughly washed in hot water with some cleansing material, such as washing powder or caustic soda, in order to remove the grease. The water should be quite hot, and the washing powders should not be used sparingly, for we too often find vessels where the grease has not been removed, but simply smeared over the tin. Caustics and washing powders are not only effective in cleaning the grease from utensils, but they also act as a means of destroying bacteria. Common soaps, and especially if perfumed, should be avoided.

### Destroying Bacteria.

It has been found that a 5 or 7 per cent solution of good fresh washing powder applied in hot water will make a good material for destroying germ life, provided the utensils are subjected to this solution for at least ten minutes, after which they should be rinsed in hot water and set away in the pure air to dry. The latter method requires more time to accomplish the same purpose than with steam, but is better adapted to farm use.

There are other methods for conveniently destroying bacteria on dairy utensils. They are, however, more expensive, but very effective. A practical way is to rinse the utensils, after they have been thoroughly washed in some alkali, with a hot solution containing 6 to 12 per cent borax. This solution also preserves the tin to a slight extent, but care must be taken not to get into the milk.

Sunlight and pure air are the cheapest and most effective means of keeping the utensils pure and sanitary after they have been cleaned. When these conditions do not exist it is then advisable to put them in a hot drying room.

Old, unclean dishcloths should never be used for wiping dairy utensils after they have been steamed or subjected to the hot washing solution, as the germs which are lodged in the cloth will again be distributed over the surface of the vessels, thus re-infecting them. If utensils must be wiped dry, it is always best to use a coarse linen cloth which has previously been steamed or boiled.

Scrub brushes are the best articles for use in cleaning dairy utensils. Coarse linen cloths may also be used, but they require more care in keeping them clean. The same methods for cleaning utensils should be followed for cleaning cloths.—Extract From a Bulletin of the Kansas State Agricultural College.

## THE BUTTERMAKER

It is just as easy to make good butter as it is to make poor butter, and you can get a much better price. The main secret is to keep the milk dishes clean.

### Use Good Butter Salt.

This is an exceedingly important matter. A good way to test it is to dissolve some in hot water. If the salt has a bad flavor it will be easily detected. Sometimes a sediment will be seen in the bottom of the vessel. A bad odor in butter many times is caused by the use of poor salt.

### Cool the Cream Quickly.

Temperature has a great deal to do with the making of fine butter, not only at churning time, but from the time the milk is drawn from the cow until the butter is placed on the table. Unless the cream is cooled quickly after milking and kept right from that time on it is impossible to make really good butter.

### Make the Best.

If you are making butter to sell, hunt up good customers who are willing to pay a little extra, then give them exactly what they want, says the Farmers Advocate. Give them the very best there is in butter and put in the quantity of salt that pleases them. You can get 5 cents above the market price in this way, and this 5 cents is clear profit. It costs no more to make good butter than poor butter; in fact, it costs less, because you are more likely to watch all the little leaks, and the result is you get more pounds of butter.

### Fishy Flavor in Butter.

This serious defect is declared by A. J. Walker in the Chicago Produce to be due to the use of washing powder in tanks and churns where care insufficient has been taken to rinse out the powder with fresh water. Mr. Walker states if a strong solution of washing powder is put in a tumbler the fishy flavor can easily be detected. This flavor has been very puzzling to all investigators, and it will be interesting to know if the washing powder is the cause of it, as suggested.

## THE SHEPHERD AND HIS FLOCK

We used an imported Bryan ram on our flock of Oxfords last September, when we generally commence breeding the ewes, writes an Ohio breeder in the American Agriculturist. First, we turn the ram out with the ewes in daytime and bring him in at night and give him a little grain and rape, as this helps to keep him vigorous. Through the winter we give the ewes a little grain, such as bran, oats and oil cake, and all the clover and alfalfa hay they will clean up. At lambing time I make small pens up one side of the shed to put ewes in as soon as they lamb for a couple of days till the lambs are strong; then the ewes that have young lambs are turned together and fed a little extra grain and roots. When the lambs are about a week old I make a pen so the lambs can creep in and get grain at this age.

I feed only grain and oil cake till they are about six weeks old, then add oats. About two weeks after the lambs are born I cut off their tails. In the spring, when the sheep go out to pasture, the ewes have grain till the grass gets some substance in it. A pen is also fixed so the lambs can get their grain. They are weaned the last week in July. The rams are separated from the ewes and turned on good second crop clover in daytime and horded on rape at night. I select my show sheep about Nov. 1, keep them growing and feed plenty of grain and clover hay. We feed no other grain than oats, bran and oil cake. In that way we don't ruin our sheep for breeding purposes.

My show sheep are sheared about March 1. When there is green clover fit to mow in the spring I feed them inside. About June rape is ready to feed. The rams are exercised every day. The show ewes exercise themselves in a small paddock. I never aim to have the show flock at their best when I start to the fairs, for I usually show about three weeks at district fairs before the state shows. By that time they are generally in good shape for the larger shows.

### Angora Goat Breeding.

The American Angora Goat Breeders' association was organized in 1900. It maintains the only American record of thoroughbred Angora goats and is the national organization representing and championing this breed of live stock in the United States, says the



ANGORA YEARLING BUCK.

American Sheep Breeder. Its 500 members represent nearly every state and territory. It has 58,000 recorded Angora goats on its pedigree register.

The Angora yearling buck Our Boy, shown in the illustration, is owned by Edward L. Naylor, Forest Grove, Ore.; photo taken at ten and a half months old; length of mohair, eleven and three-quarter inches.

### Foster Mother For Lamb.

I keep my sheep during the winter months in a shed, through which I pass several times a day. This makes them more tame and easier to handle at lambing time. I am not an extensive feeder of grain, but prefer whole grain to ground. Last season I experimented with a twin ewe lamb, feeding it directly from the cow. The little fellow nursed the cow very shortly after its birth until it was large enough to turn to pasture with the flock. It grew rapidly and proved to be a healthy, fine sheep, being fully as large as its mate. I believe it is money in the shepherd's pocket to encourage ewes to have twin lambs. Twins will bring more in market, and, all things considered, our farmers will do well to select such sheep as have a tendency in this direction. My sheep have proved much more profitable than my cows.—Myron W. Graham, Hartford County, Conn.

### Wintering Young Wethers.

The Wisconsin experiment station conducted three trials to determine the influence of exercise and confinement on fattening wethers. In only one instance were there any bad results apparently arising from close confinement. The results of the three trials lead to the conclusion that for feeding growing wethers close confinement in pens which are dry, with fresh air and light, is equal to if not somewhat better than allowing plenty of exercise. It is believed that there is much space in the farm buildings which could be utilized for feeding a greater or less number of wethers. No better class of stock can be recommended for converting farm grains and roughage into cash and fertilizers than sheep. The farmer who has feed and uncultivated space in barn, driveways, emptied mows or stall lots can utilize the same to a good advantage by feeding sheep.

## COMING!

The Famous Play "Uncle Tom's Cabin."

The play that has no equal, the one that is always greeted by a packed house, Stetson's Uncle Tom's Cabin Company will be seen at the opera house on Thursday, Jan. 31.

This is one of the biggest and best "Uncle Tom" shows on the road, and it has the reputation of presenting a thoroughly first-class performance. The same company appeared here a few years ago, and gave good satisfaction.

## Funeral of Mrs. Radir.

Mrs. Margaret Radir died at the family home on Eighth street at 6:30 o'clock Wednesday morning, after an illness of only six days with a complication of diseases. The funeral occurs today at 2 o'clock from the Episcopal church, Rev. Hannon of Oregon City conducting the services, and interment will be in Crystal Lake cemetery.

Deceased was born in Kerrick Fargis, Ireland, and had she lived until March 17th she would have been 79 years old. She came to the United States in 1829, living for a time in Pennsylvania, and to Oregon in 1875. Fifty-three years ago the 6th of next April she was married in Allegheny, Pa., to Adam Radir, who is the surviving husband.

Mr. and Mrs. Radir resided on the well-known Radir farm three miles east of Corvallis from 1875 until a year ago when they moved to this city. Mrs. Radir had been ailing for two years so her death was not unexpected.

The immediate family surviving consists of the husband, and three daughters, Mrs. Richard Graham and Mrs. Millie Smith of Corvallis, and Mrs. Sarah Whitmore of Scranton, Pa.

## For the Alsea Road.

It begins to look as though the Alsea mountain road might yet become passable in mid-winter, if the energy and determination of the residents of that section prevails. The road has long been an eye-sore to the whole of Benton county, but despite every effort it remains almost impassable throughout the winter months and a terror to all who have to travel that way.

So eager are the residents of that section to have a decent highway that the people of the "South" district recently voted a five mill tax for the purpose, and those of the "north" district voted a ten mill tax for the same end.

In addition to this, it is planned to secure \$25 individual contributions for road work, one citizen having offered that sum if ten other citizens would give a like amount each. No sooner had he made the offer than Wade Malone, the enterprising Alsea merchant, declared his willingness to donate \$50, and it is thought a goodly sum will soon be available for the proposed road improvement.

## Might Have Changed History.

Napoleon III. of France, when a prisoner in the fortress at Ham, wrote and published a paper on the possibility of linking the Pacific and Atlantic oceans by means of a canal. This created so profound an impression that the minister plenipotentiary of Guatemala offered him the presidency of the construction of the Nicaragua canal. The proposal was followed by the offer of the presidency of the Ecuador republic. The latter offer was conditional upon King Louis Philippe's releasing the captive and upon the latter's giving his parole never to return to Europe. Louis Napoleon was prepared to give his parole, and Sir Robert Peel, then prime minister of Great Britain, was willing to back up his application for release upon these terms. Lord Aberdeen, however, would not hear of it, so the prisoner remained to be president and emperor of his native land.

Foley's Kidney Cure  
Solely by the use of the medicine.