



WATCH THE COWS.

Get Good Returns For Good Feed and Treatment.

It is too often the case with many farmers or dairymen that they keep their cows, regardless of their producing capacity, till they are old before they replace them with others. A cow should be, as it were, a trial. And her owner should be exacting enough to demand large returns from good feed and treatment. Every generation of cows can for many years yet be made an improvement on their dams. Then the more rapidly one generation of cows is made to replace another the more rapidly will the herd improve in producing capacity if the proper care is exercised in breeding. It is possible to have all cows in the herd approach and even equal the best cow in the amount and quality of milk given. A little ambition and enterprise on the part of dairymen should soon bring this about.

Reducing the Herd.

Our pasture fields and feed supply should be used to their full capacity. When a cow on account of some accident or for some other unforeseen cause does not give sufficient milk to make it profitable to keep her, there should be heifers ready to take her place. It is a good plan to raise a certain number of heifers each year, and if no vacancies should occur in the ranks of the older cows then create some vacancies by selling the least productive ones. A farmer must see to it that his herd is reduced in numbers. With improvements in methods of growing and handling the farm crops, the farmer is easily enabled also to enlarge his dairy herd. To renew the herd is the only way to keep it possessed of vitality and thrift with capability or capacity for large productions.

We should make a sort of civil service examination of our herds, says the Cheese and Dairy Journal. That is the only way to be up with the times. It is the only way to get the profit.

A Difference in Bulls.

But few men appreciate the wonderful difference in bulls, and probably one of the greatest hindrances to the development of a good dairy herd is the indifference which is paid to the selection of a sire. There is no surer or quicker way of building up a dairy herd than the use of a strong, vigorous and prepotent bull which comes from a family of good milking cows. Good animals cost more than scrubs, and consequently farmers do not think there is enough difference in bulls to pay the extra cost for a good sire, but here is an expression, says Hoard's Dairyman, from a practical breeder: W. J. Gillett of Rosedale, Wis., a prominent Holstein breeder, says about the purchase of a high priced bull: "The hardest battle I ever fought was years ago to lead myself to pay the sum of \$300 for a bull calf for use on our pure bred herd, but I can now say had I paid \$3,000 for this same sire the sum would not have equaled his worth or been commensurate in value to the great dairy characteristics he stamped upon his offspring."

Give the Cows Exercise.

Cows in milk will consume and digest more food and give more milk with moderate open air exercise than if kept in closed quarters.

DAIRY WISDOM

The cow appropriates a certain amount of food to sustain life. What you give her above this is clear profit. Quick fattening makes tender meat. Let it help out with the old cows. Round up all the poor cows for the butcher.

The cow that tests less than 3 per cent butter fat had better be sold.

Deliver the cream before it becomes too old. Cool it promptly and use great care in milking and cleaning the separator. Then your creameryman will have no objection to the hand separator.

Burn the rag you used to wash the milk utensils with. Then use a brush. There is much in breed, but more in care and feeding.

To make your dairy pay better study how to produce milk at less cost.

Silaged feed cows winter better, give more milk and do better when put on pasture than others.

If the silage molds and decays on the top do not begin to worry. This seals up the rest and keeps all that is under it in prime condition.

Pack the silage well at the sides. The middle will settle of its own weight, but the contact with the sides of the silo keeps it from settling around the outer edge, says Kimball's Dairy Farmer.

The great principle to be observed in winter dairying is to feed economically as regards cost so as to secure the best result.

Dutch Belted cattle may be regarded as strictly dairy cattle, but I have found that they make good beef owing to their size and easy keeping qualities.—F. R. Sanders, New Hampshire.

A good hardworking cow should have six days' rest before starting the fresh period. Many cows will keep up a good flow until a very few days before calving, but it is a poor plan to let them do this. The most persistent milkers are the ones who will do this, and they are just the cows which need a good long rest. They will more than make up for lost time when they freshen.

Ropy or stringy milk is caused sometimes by stagnant water. The cows are permitted to stand in water holes, and this gets the old water and mud on their hind legs. When they lie down their udders come in contact with this mud and trouble follows.

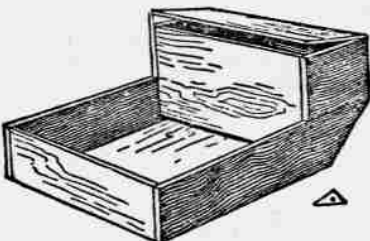
FEEDING FARM WORK HORSES

Approximately ten pounds of oats, five pounds of corn and three pounds of bran divided into three equal feeds make a day's ration that cannot be much improved on. The relative amount of corn can well be increased during the winter months, and for sake of variety it may be omitted at the morning meal and fed at noon. The weight fed at each meal should be kept about the same, and for the evening meal crushed oats should when possible be substituted for the whole grain along with the bran and a few handfuls of cut hay fed wet and salted enough to render it palatable. Horses soon become very fond of this food, and this alone aids digestion. Sixteen pounds would be a fair amount of hay per day, the larger portion of course naturally being consumed at night.

We do not agree with some writers as to varying the amounts fed at the three different meals, such as, for instance, omitting the noon grain ration entirely or feeding double the amount at night that is fed at the morning or noon meal. All seem to agree, however, that the horse on account of the peculiar construction of his digestive apparatus can advantageously be fed oftener and in relatively smaller quantities than other farm animals. This seems reasonable; therefore it is inadvisable to reduce the number of feeds to less than three a day or to increase the amount at one time, for if a double ration of grain is fed at night the liability to colic is greatly increased and that at a time when no assistance is at hand.

As to the feeding of idle work horses, it would be well if we could dispose of this subject by saying there should never be any, for this undoubtedly is the hardest treatment the work horse gets—the occasional rest when kept absolutely idle tied to a manger with all the fodder before him he can consume. Never allow the idle horse to remain in the stable, but see to it he has a pasture or yard to exercise in part of every day, winter and summer, materially cutting down the amount of grain and using more succulent food if possible.—J. Z. McLay, Janesville, Wis., in American Cultivator.

An Automatic Feeder. A large share of horse troubles arise primarily from cases of indigestion. Indigestion comes from poor teeth or from gluttonous habits. The gluttonous horse should have some curb put upon his appetite. The best way is to make him eat slowly and thus prevent his bolting of his feed. One simple way to make him eat slowly is to put



AUTOMATIC FEEDER.

In an automatic feeder. This feeder can be made very easily, as the illustration from the Farmer shows. It is merely a small box, which holds an ordinary feed of oats or other grain, which will go through a small space. An opening is made in the bottom, which will let the feed out very slowly, and the horse can eat no more at a time than is allowed him by the feeder. Should the horse learn to open the box containing the feed it can be reversed, and the lid will then be out of his reach.

Value of a Good Pedigree.

A study of the science of heredity cannot fail to impress the live stock breeder with the paramount importance of a good pedigree. If by the laws of heredity the characteristics of one or both of the parents or some more remote ancestor are certain to be stamped on the offspring the importance of breeding animals which are not only of high class quality themselves, but are descendants from stock of equally high quality, is at once apparent. The more distinguished and unsullied the lineage of any pair of animals is the greater is the probability that the stock begotten of their union will be equal to themselves in quality. The law that like produces like means that the progeny shall be like the parents, not an exact facsimile, for two parents are never found exactly alike, but in all essential features there will be a close resemblance. This law is the great magna charta of the breeder. The results from the operation of this law are by no means uniform. They will be nearly so, however, in proportion as the parents have been purely bred, in proportion as they have been bred in line without having reached the danger point of weakened stamina and in proportion as the parents are strong and vigorous.—Professor Thomas Shaw.

Fattening Hogs on Wheat.

Farmers of the Big Bend wheat country in Washington are feeding wheat to hogs. The grain is worth only 50 cents a bushel in the bin, and hogs are worth 74 cents a pound on foot in the lot. By careful computation they estimate that wheat that is fed to hogs yields returns on the basis of about 80 cents a bushel. Although the practice never prevailed to any great extent heretofore, the feeding of wheat to swine has become general this season. The combination whereby wheat is unprecedentedly low and hogs are almost unprecedentedly high constitutes a condition that inevitably has this effect.

SELECTING A STEER.

Some Points That Show Good Quality in the Animal.

The following description of a good steer for the feed lot is by Professor F. B. Mumford of the department of animal husbandry in the Missouri university:

"The head should be moderately fine, with a broad, full and high forehead, indicating a generous brain, which will suggest a well developed nervous system and strong vitality. A short face and not lean is an ever present characteristic in a beef steer of prime quality. A broad muzzle, with nostrils wide open, is seldom associated with a poor feeder. A clear, full eye shows good health and quiet temperament. The head should be well carried on a short, full neck.

"Passing back from the head and neck, we should observe next the shoulder vein, which lies just in front of the shoulder blade. This region should be characterized by fullness. The shoulder of a good beef steer is compact and well covered, with no tendency toward coarseness or any angularity. The condition of the animal at the time will, of course, materially influence this point and should be given due weight.

A Valuable Characteristic.

"In selecting good feeders bear in mind that the appearance of the chest is a point of highest significance. A broad, deep and full chest is a very valuable characteristic. Such a chest is clear evidence of a large heart and plenty of lung room, and, other things equal, it indicates a good development of these supremely important organs.

"The body of the animal should next be examined. You may find that the girth is so small as to be a very serious defect. A desirable beef animal should have a large, full girth. A large girth is associated with many other essential characteristics, such as full crops, well filled fore flanks, well sprung ribs and a wide deep chest. No amount of feeding can ever correct a marked deficiency in the girth of a steer.

"The importance of an arched well sprung rib is very often overlooked by those who insist too strongly upon a straight underline. With a well sprung rib we must have a broad, straight back moderately short and well covered with flesh. Excessively long backs seem to be uniformly present in late maturing animals.

The Good Beef Animal.

"The hips are the first to attract attention in examining the hind quarters of a steer, and when these are wide apart, smooth and well proportioned to the rest of the body all the requirements for beef excellence are fulfilled. The rump of the good beef animal is long, level and wide and entirely free from suggestion of bunchy or patchy fat at the base of the tail. A long rump is considered by many practical breeders as a highly valuable quality.

"The pin bone should be wide and sufficiently high to carry the back line out straight to the base of the tail. These bones should not be too prominent and should be smooth and free from patchiness. The tail if terminated by a switch of fine hair and composed of moderately fine bone may be a valuable indicator of good quality."

THE FEEDER

Don't make the mistake of feeding ground grain and whole grain together. It induces swallowing the whole grain without chewing. As a common rule, feed horses whole grain. A thorough mixing of the saliva with the food is as essential to the health of the horse as it is to the man. A bolter can never do his best nor make a fine appearance. He also wastes his master's money, says the Farm Journal.

Feed For Ewes in Winter.

In winter I do not like to keep my ewes that are going to raise lambs chiefly on corn, says a well known breeder. I feed one part corn, two parts oats and two parts bran, with all the clover hay they can eat. If you have not clover hay to feed your sheep this winter and you are going to compel them to eat timothy hay you would better have shot them when the winter commenced rather than see them die after you have brought them through to the spring. You must be careful on this line. Of course corn fodder is good for sheep next to clover hay.

Fattening Cattle.

It is well to look for steers which have had but little corn and have not been housed. When an animal under such treatment comes out looking bright and healthy he should be bought. When well bred such animals will give to the judicious feeder a liberal return for food and care given them. Recognizing that time is the most important element in the business of fattening cattle, breeders have sought to establish breeds which would mature at an early age and at the same time give a large amount of juicy, tender flesh. The feeder should be careful not to throw away any of the advantages the efforts of skillful breeders have placed within his reach. He should not permit his cattle to stop "drawing" for even a single day. If he does, the food, the labor, care and interest upon the value of the cattle themselves are lost. Anything which breaks the regular habits of cattle even for a short period will effectually prevent their gaining flesh, even if it does not cause them to actually lose in weight, writes W. J. Grand in the Ohio Farmer. Cattle are naturally creatures of very regular habits.

SQUAB BREEDING.

Friths Which Are Frequently Overlooked by Pigeon Raisers.

The size of squabs is governed by two absolute rules that must be observed for success. The first of these is the use of only large, well developed hen pigeons for breeders. Small, delicate hen pigeons cannot produce squabs that weigh more than seven pounds to the dozen, while, on the other hand, well selected hen pigeons of the homer variety not only will, but do continually, produce squabs that average from ten to twelve pounds per dozen when dressed for market. To partially insure success you must have this kind of hen homers for breeders. To absolutely assure failure no plan can be better than to use undersized hen pigeons.

The pairs must be well mated working homers. They may be well mated, but if they are not working homers no good results will follow. Working pairs are those that pay strict attention to hatching and rearing their young. Such pairs feed their young from three to five times per day or oftener if induced to do so by those in charge. With such attention fine large squabs must grow from a large, well developed hen. To aid in this they must be handled for best results, which refers to the attention to be paid to their surroundings and feeding.

To induce frequent feeding the hopper must be constantly filled with small grains and broken corn, with the water fountain never empty. Morning, noon and evening are the natural feeding times. A constant pair that are good workers will feed the young thus often if the hopper and fountain are always full. To gain additional attention go into the loft between 9 and 10 in the morning and 3 and 4 in the afternoon and scatter upon the floor some kind of grain that will attract them. This they will pick up and carry to their young. This extra feeding induces quicker growth and greater weight in the squabs.

More and Better Poultry Shows.

In the first article of his series on American poultry matters and methods, published in the November issue of Reliable Poultry Journal, Professor Edward Brown, Europe's foremost authority on poultry subjects, expresses himself as follows:

"Whenever an attempt is made to improve the poultry of any country and to awaken interest in this branch of live stock there can be no question that one of the most powerful and potent influences is by the establishment of poultry shows. The educational value of such gatherings is enormous. People are quite content with whatever birds they have, veritable mongrels though they may be, until they see something better. The exhibition of any race or breed leads to its adoption, and the competition between those who keep it distinctly leads to its improvement, more perhaps in the earlier stages than later on, when other factors are introduced."

Duck Fattening.

It is of course very generally known that some small amount of chicken fattening is carried on in some districts, and there are, on the other hand, some few persons who can make heavy ducks, although with these few it is still a very limited branch of their work, says a writer in Western Poultry Journal. Some of these have, however, already made a very considerable reputation as prize winners in the dead poultry classes at the important shows. I was fortunate in calling upon one last fall when his ducks were killed in preparation for one of our largest shows. I saw some dozen birds all weighing well over twelve pounds apiece, and three turned the scale at fifteen. This proves that some can successfully fatten other birds than chickens, but so far rearers have had no great success in rearing early ducklings.

The "Big Three" of Incubation.

It has long since been conclusively proved that an incubator of any well known make can be relied upon to do its work quite as well as the average broody hen, says a writer in Western Poultry Journal. In hatching by natural means there are many things essential to success, all of which are to be considered, but when we fully understand the three questions of heat, ventilation and moisture it seems to me that we will have mastered the three fundamental principles of the laws of incubation. A close study of these can be made from nature, and if we follow nature closely we shall not go far wrong.

Concrete Poultry House Floor.

There is, in my experience, no floor for a poultry house like a concrete one. My floor is made by putting in about six inches of sand, gravel or cinders, well rammed, says a writer in Reliable Poultry Journal. On this put an inch of concrete of one part cement to two of coarse, sharp, clean sand, well pounded. This is rat and weasel proof and perfectly dry. One or two inches of dry earth on this floor will keep everything sweet and clean. A little cut straw or chaff on top of the earth will give you one of the best scratching shed floors ever invented.

Prepare Now For Next Season.

It is a good time now to build some new coops for chicks next spring, as one may have a little extra time to spare now, and also the weather is nice for working outdoors or in the shop. Save all the little pieces of boards that you have left from the new poultry house you are building, and perhaps you may find use for them in making the chick coops and other smaller arrangements for the poultry work.

HIGH PRICED FOWLS.

It Often Proves to Be the Greatest Economy to Buy Them.

If we tell some folks that a chicken sometimes sells for \$50 or \$100 and a few have sold for much more, they decide at once that any person that would pay such a price for a chicken is a mighty big fool, says O. P. Greer in American Poultry Advocate. Now, the fact of the matter is that, as a general rule, the person that pays a good price for something extra fine is not a fool, but a careful, intelligent person who knows that he can never reach the top round in the ladder with second or third class stock. I personally know of a case where a chicken "crank" paid a large price for a Plymouth Rock cockerel in order to get something fine. This man's friends said he was a fool; that no chicken on earth was worth \$35. This bird won at several shows in "hot" company and gave the exhibitor considerable reputation as a fancier of high class poultry. The owner of this grand bird mated him with a few very fine females and from this pen raised about 250 chickens. Forty of the cockerels he sold for \$5 each, a number he sold for \$10 each, and a number he closed out at \$1 and \$2. Besides, he sold a number of pullets at a good price and had a nice flock left for laying and breeding the next year. It cost something to advertise and exhibit his fowls, but he said it was the best investment he ever made. This man was not a fool, but a level headed business fellow who knows how to invest money in something good. One thing I learned several years ago—that no person will ever succeed with pure bred poultry unless they can raise something that there is a demand for. There are some people who don't seem to understand why one chicken isn't worth just about as much as another. I have met people who claimed to be in the pure blood business who thought \$1 was enough for the best chicken in existence.

The Valuable Houdan Fowl.

Without question the finest poultry, from the table standpoint, is raised in France and Belgium. In fact, epicures in all parts of Europe get their table poultry from France and some portions of Belgium. Therefore it would seem to be the part of wisdom to study the preferences of breeders in those



HEAD OF HOUDAN FEMALE.

countries. In both France and Belgium the great, almost universal, favorite is the Houdan. Its detractors in this country declare that the Houdan is a difficult bird to raise, that after it is raised it is too small to show a profit to the breeder and that it is by no means a remarkable layer. Its friends declare that the Houdan is not difficult to bring to maturity, that it is one of the best layers in the world, month in and month out, and that its flesh is not excelled in quality by any fowl in existence, some persons even going so far as to consider it the equal for table purposes of the much vaunted pheasant. Houdans in this country, by reason of their freakish heads, one of which is shown in the illustration, have mistakenly been regarded merely as fanciers' fowls. No attempt has been made to raise them in large quantities for the table. This is now about to be done to some extent, however, and the admirers of this excellent breed declare that ere long a veritable "Houdan fever" will sweep the country from end to end.

Don't Heat Fowl Houses.

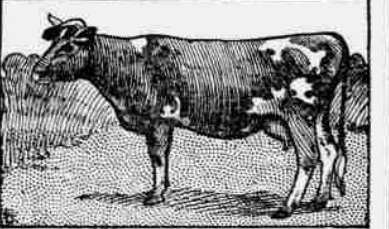
About the most foolish move a poultry keeper can make is to heat a house artificially for adult stock, says a writer in Western Poultry Journal. In every case the standard of health of the birds will be lowered, and with the slightest exposure they will contract colds with the probable disastrous consequences. If during the hatching season chicks are hatched from eggs laid by these birds you will find that the mortality is unusually large. This simply goes to show that the fowls are under unnatural conditions, and if the owner is persistent in keeping them in this way he will soon have a flock of such low vitality that they will not be profit paying.

Fasting System Self Administered.

I am letting my hens sit awhile before breaking them up, says a writer in Reliable Poultry Journal. In that way they administer the Van Dresser fasting system to themselves. When they are broken up they receive plenty of a variety of food. I believe it works well. I did that way last summer, and my hens have laid eggs every day from the 1st part of October and are still at it. I get from one to fifteen eggs a day from twenty-one hens. The January record was fourteen eggs per day.

Encourage the Children.

Give the boys a chance with poultry. When the girls show a disposition to handle poultry encourage them as well, says the Feather. The young folks would do well with poultry if permitted to have the opportunity of making an income from selling it. Never discourage the members of the household by taking from them the profit of the labor bestowed upon poultry keeping.



ITHEN DAISY III.

record as a two-year-old—9,588.7 pounds milk, 553.83 pounds butter fat—which placed her at the head of her class, and has just completed another year's test which places her at the head of the four and a half-year-old class, she gaining that position by 700 pounds milk and 9 pounds fat. She is the first cow to have the distinction of standing at the head of two classes in the Guernsey register. The record was made under the supervision of the New Jersey experiment station.

How One Breeder Succeeds.

Talking with a breeder of dairy cattle who has had cows make some high records, who seldom loses a calf or a mature animal and who sells his stock at good prices, a friend says: "You are the luckiest mortal I ever knew. Things always seem to come right for you." "Luck has nothing to do with it," said the breeder in question, "unless you would call staying up all night with a calving cow when it is necessary, watching with the greatest care the cows that are on test, as well as the other members in the herd, and seeing that everything is attended to personally and working from twelve to sixteen hours a day, luck. And if persistent advertising, attending breeders' meetings and sales and doing missionary work with the neighbors at home in the interest of pure bred stock and for the further purpose of disposing of my surplus stock is luck, I have it, but not otherwise." There is a little sermon in this for the beginner in the pure bred stock business.—Holstein-Friesian Register.

The Cows to Keep.

As the cows are to bring in most of the cash it is very important that they be carefully selected. Breed is not nearly as important as performance, says the National Stockman and Farmer. It is a very good plan to start with pure bred registered animals if within reach, but let the pedigree not deter you from using the scale and test, and if any fall below the standard dispose of them quickly, pedigree and all. Indeed, my friend, with a favorable season you may succeed in growing enough roughage and some grain for eight cows and two horses the first year if you go at it heart and soul, but it means long days of hard work, careful thinking and prompt execution.