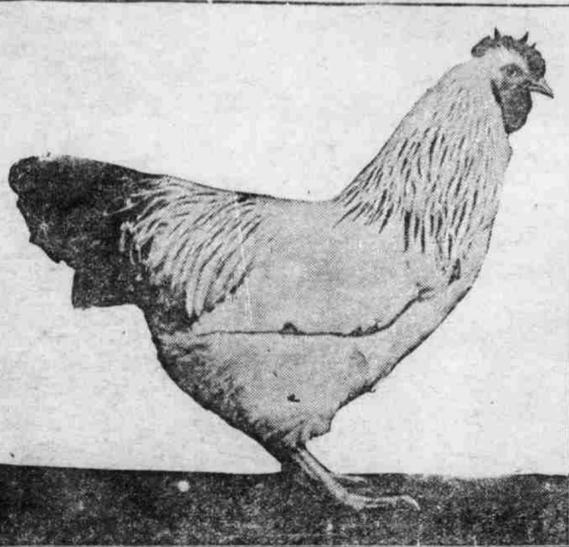


RATIONS GIVEN TO HASTEN NEW FEATHERS



PRIZE WINNING COLUMBIAN PLYMOUTH ROCK COCK.

Hens must finish molting before cold weather starts or they will not lay in the winter months. Because of this fact a special combination of feed should be given to hasten the growth of the new feathers, according to Ross M. Sherwood of the department of poultry husbandry in the Kansas State Agricultural college.

Use Linseed Oil Meal.
"Sour milk and beef scraps are useful at all seasons," says Mr. Sherwood, "but linseed oil meal is especially good at this time. There are certain food materials in oil meal which are needed in feather building and which are not found in the other feeds mentioned. Practical feeders often point out that oil meal loosens

the old feathers. This may be the result of the rapid growth of new feathers caused by food materials contained in the oil meal."

Ration for Molting Season.
The following ration is recommended for the molting season: 60 pounds of corn chop, 60 pounds of wheat bran, 20 pounds of meat scraps, and 15 pounds of old process oil meal. This is fed in combination with a scratching feed made up of two or more of the cheapest grains locally.

After the fowls have completed the molt and are well feathered, this mash may be given: 60 pounds of corn chop, 60 pounds of wheat bran, 30 pounds of wheat shorts, and 20 pounds of meat scraps.

FOWLS IN WINTER

Make Profit From Flock During Extremely Cold Weather.

PREPARE FOR HENS' COMFORT

All Immature Pullets Should Be Separated and Forced for Development or Fattening—Make General Cleaning Up.

The showing that the hens make during the severity of winter, is a good index of the person handling them. Spring is the natural laying season. Nature usually lends aid for the hatching and rearing of chicks from March until October, but winter and late fall finds the hen entirely dependent upon her owner so far as the profit she will pay is concerned. The careful farmer or poultryman makes a profit from the flock during the cold weather and prepares the way from the time the eggs are selected in the spring until the snow begins to fly by selecting eggs from tested winter layers, keeping as winter producers only well developed pullets and healthy, energetic young hens by preparing for their comfort in the fall before the rigors of winter set in.

Granted that one has these well matured pullets or hens that are young enough to be profitable if held over for another year, the problem of winter eggs is not so difficult. No producer on the farm responds more readily to good care than the hen and the cow.

Begin Culling Now.
In order to get into winter quarters with the best possible prospect, culling should begin now. All immature pullets should be placed to themselves and forced for development or fattening for market and all extremely old hens had best be prepared for the pot. Cockerels intended for next season's breeders should be separated from the others and a general clean up made of all surplus stock. It is possible that it will be more profitable to hold some or all of the surplus for a better market but they should at least be separated from the winter flock and the latter placed in permanent quarters early.

It is remarkable how well a little flock of 50 or 100 hens and pullets will pay if well attended. The housing need not be elaborate or expensive. The feed is all at hand on the average grain farm and no one need worry about protein or ash or balanced rations. Give the hen something to balance and she will do the work for herself.

Make Needed Repairs.
If your house is in need of repair, begin now in your spare time to repair it. Patch the roof if it leaks. There are usually enough odds and ends around the farm to fix it. If it has wide cracks between the boards of the wall, set fender around three sides of it, leave a part of the south or east side open and make a frame covered with caecese cloth or some other light material for extremely cold and stormy days. Fill in a dirt floor four or five inches higher than the surrounding yard. Clean out the old nest boxes and spray the wall and perches. You will have made a nice start toward winter eggs when these things are accomplished.

DETERMINE PROFIT ON DUCKS
An Experiment Found That Fowls Twelve Weeks Old Required 3.18 Pounds of Feed.
In an experiment to determine the profit on ducks hatched in incubators, reared in brooders, and sold on the local market at from ten to twelve weeks old, 3.18 pounds of feed per pound of gain were required, the average weight at the end of ten weeks being four pounds, 11.2 ounces per duck.

DAIRY

LOSS OF FAT IN SKIM MILK

Farmer Using Separator Should Pay Close Attention to Matter—Chief Cause Is Speed.

Every farmer who uses a separator to skim his milk should give close attention to see that he does not lose fat in the skim milk. A small percentage of fat going into the skim milk continuously means a great loss for the year.

If a cow gives 5,000 pounds of milk and four tenths of one per cent is lost, it would mean for the year a loss of about \$8 per cow.

There may be many causes to produce such a loss. Probably the chief cause is the speed of the bowl. If a separator is turned too slowly the milk does not skim clean and fat goes over into the skim milk. Another cause might be the temperature of the milk. For close skimming milk should be 85 degrees or above. Still another cause is an unbalanced bowl. See that the separator gets plenty of oil when running and do not neglect it when it gets out of order.

MAKING IDEAL DAIRY RATION

Silo Solves Succulence Problem Best—Roots Should Be More Generally Fed to Cows.

It is very necessary that succulence be supplied if we hope to come anywhere near an ideal dairy ration. The silo solves this problem best. From all points of view silage is to be preferred. The second choice would be roots. These will be very satisfactory, either when fed alone or supplementary to the silage, and should be more generally fed than at present on all dairy farms. Lacking either of these, it will be important to secure similar effects through the grain ration with the aid of alfalfa or clover if available. In this connection oil meal is of great value because of its well-known laxative properties coupled with its high protein content.

BUILDING UP A DAIRY HERD

Care and Feed of Calves Is of Great Importance—Select Best Marked Females.

Select the best marked female calves from the tested and most productive cows. Let the calf remain with the cow for eight to ten days or until the cow's milk is fit for human food. Feed sweet skim milk heated to blood heat; about one to two quarts may be given morning and evening. Have a clean tin feed bucket; disease and no end of germs may be found in dirty buckets. Feed every day and set out in the sun and air.

Feed sweet milk; it should always be fed warm; cold and sour milk will produce scours and diarrhea. After



Good Foundation Stock.

the second week a little oatmeal and a small quantity of flaxseed oil meal after it is boiled may be added to the milk.

Tie a little bunch of bright, sweet clover hay in the pen every day for the calf to nibble. After the milk has been fed put a little meal in the calf's mouth. A little hay may also be given. By this method the calf will soon learn to eat meal and hay.

Whole oats and wheat bran may be fed in small quantities after the sixth week. All stock, young and old, thrive and keep in health when well fed and kindly treated.

CHECK GROWTH OF BACTERIA

Milk Fresh From Cow Should Be Chilled at Once to About Fifty Degrees Fahrenheit.

Cooling milk immediately after milking checks the growth of bacteria and thus prevents the milk from spoiling. Hence milk fresh from the cow should be chilled at once to about 50 degrees Fahrenheit and kept at that temperature until delivered.

SILAGE NECESSARY FOR COW

Thirty Pounds Per Day Is About Right—It Won't Hurt to Give Her All She Will Eat.

About 30 pounds of silage per day is required by the dairy cow, while a beef animal will consume one-third more, or possibly a still greater amount. It will not hurt a cow to feed her all that she will consume if the silage is good and is fed regularly.

LIVE STOCK

MENACE TO DAIRY INDUSTRY

Difficult to Estimate Cost of Contagious Abortion Each Year—Breeders Are Secretive.

Tuberculosis is a dread disease, and its ravages are a heavy burden on the live stock industry. The loss that it entails, however, is not so much to be dreaded by the live stock men as the losses caused by contagious abortion. It is difficult to estimate just what abortion costs the dairy industry each year; breeders are very secretive about its presence in their herds; losses are taken quietly and nothing said. Many, too, have contagious abortion to deal with and are not aware of it. It is not necessary that a cow actually abort to prove that the disease exists. Sterility, irregular heat and retained afterbirth, are all symptoms of contagious abortion. Too often, too, an abortion is explained as the result of an accident or strain, and the dairy farmer lulls himself into a feeling of false security. The first essential toward eliminating the disease from the herd is that we be honest with ourselves and recognize that the disease exists. Eternal vigilance is the price of freedom from this disease.

BLANKET FOR LITTLE LAMBS

When Animal First Comes into World He Is Weak and Puny and Needs Some Protection.

The poor little lamb is up against it when he first comes into the world. He is weak and puny, and the chances are he will end fatally and result in a loss to you. Be on the safe side by wrapping him up in one of the blankets shown in the accompanying



Blanket for Lambs.

drawing. It is attached by straps which pass under his belly and also by one which fastens around his neck. The lamb will be grateful and so will you when he develops into a big rascal worth quite a few dollars on the market.

FEEDING PIGS FORAGE CROPS

Greater Returns Made Than From Animals Fed in Dry Lots—Alfalfa Given Highest Rank.

Pigs fed on good forage crops will make many times as much profit as those fed in dry lots.

The accredited gain in pork to an acre of forage varies, depending upon the crop, the age of the hog, and amount of grain fed. An acre of sweet clover, with corn at \$1.50 and hogs at \$15 a hundred, netted \$42.07; rape, \$37.50; alfalfa, \$65.00, and a combination of oats, peas and rape, \$64.60.

Of all forage crops, alfalfa is the great permanent crop, while rape is the emergency crop, and green rye the fall and early spring crop. The ideal forage crop should show adaptability to soil and climate, permanency, palatability, reasonable cost of planting, and good pasture at any time during the growing season. Alfalfa, clover and rape have most of these qualities.

MANY FARMERS HORSE POOR

Four Animals Are All That Is Needed to Work Quarter Section—One Should Be Brood Mare.

Too many farmers are horse poor. They have not only too many horses but horses which are not good. In farming a quarter-section of land there is no need for more than four horses. Three of these should be heavy horses and one should be an animal heavy enough to do considerable work yet light enough to do the family driving. Of these heavy horses at least one should be a good brood mare. While practicing economy in other respects, it is well to study the economic use of horse flesh.

PASTURE SHEEP IN ORCHARD

If Turned in Early in Season They Gradually Accustom Themselves to Fallen Apples.

Sheep, if suddenly fed an unlimited quantity of apples, would quite likely choke themselves, or even to such an extent that other disastrous results would follow. But, if turned into the orchard early in the season, they will gradually accustom themselves to the small apples as they gradually fall from the trees, and no harmful results follow. Cows and hogs are equally useful, provided the trees are in such a condition, and of such a shape that the animals will not harm them.

PRACTICAL POINTS FOR FILLING A SILO



USING PERPENDICULAR PIPE TO FILL SILO.

(Clemson College Bulletin.)

Distributing and packing silage in the silo is frequently neglected. Unless the blower has a distributor attachment there is a tendency for the cut corn to fall in one place in the silo. If the stalks are frequently blown to the outside and the heavier parts, ears and butts of stalks, are deposited in the center, this causes an uneven distribution of grain and stalk and a consequent uneven quality of silage. Uneven distribution is frequently the cause of soft places and air pockets, which later result in spoiled silage. When the lighter portions are blown to the outside they do not pack well and the silage spoils near the wall. Such spoilage, which really results from careless filling, is often attributed to the silo.

Packing Is Important.

Packing the silage is equally as important as distribution. Thorough packing requires persistent work.

Good silage can be had only by uniform packing and uniform distribution of the corn. The entire surface, especially the outer edge, should be packed firmly. The best help obtainable should be stationed in the silo. That is where the silage is ultimately made, and success depends on the ability of the men to distribute and pack the corn properly.

Large Cutter Saves Money.

The large cutter with the corresponding large capacity frequently saves money in filling the silo, but it may result in a waste of the storage capacity of the silo. If the silo is filled rapidly the corn has little time to settle. Slow filling allows the corn to settle as it is stored, with the result that more corn can be placed in the silo. To overcome the disadvantage of rapid filling woven wire may be extended above the top of the silo, thus increasing its capacity until it can settle.

LAMBS BORN IN FALL

Such Animals When Ready for Market Bring Fancy Prices.

Dorset, Rambouillet and Merinos Will Breed at Almost Any Season—Open Shed Will Furnish Sufficient Shelter.

The term "winter lamb" has reference to lambs that are born in the fall or early winter and grown during the winter. Such lambs when ready for the market usually sell at fancy prices because they reach the market at a time of the year when choice, fat young lambs are scarce and in great demand, says D. A. Spencer, sheep expert for the department of animal husbandry of Oklahoma A. and M. college, Stillwater.

To produce winter lambs it is necessary to have the ewes bred in late spring or early summer, says Mr. Spencer. If the ewes are in good, thrifty condition and have access to plenty of good pasture, they will not need any grain until lambing time.

Not a very large percentage of the ewes of the most desirable mutton type will breed early enough for winter lambs. The Dorset breed is an exception to this, however, for the Dorset ewes will breed at almost any season of the year. Only a small percentage of the tidy, popular Shropshire ewes will breed before cool weather in the fall. Merinos and Rambouillets, like Dorsets, will breed at almost any season. If one has grade Merino or Rambouillet ewes that he does not care to mate with fine-wool rams, they may be bred to mutton type rams and the lambs will be excellent for mutton.

Nevertheless, during the hot weather that usually prevails in July and August, only a small percentage of the ewes of any breed will come in heat. It is, therefore, wise to turn the rams with the ewes in May, or at least as early as June, in order to get the ewes to breed before extreme hot weather. The period of gestation in the ewe will average about one week less than five months, so that ewes bred in May or June will lamb in October and November, just when the weather is getting cool and almost ideal for lambing.

The mild winters of Oklahoma afford the farmers of this state splendid opportunities for winter lamb production. A shed placed on well-drained land, opening to the south to admit sunlight, so built as to break direct drafts of wind, and with a good roof, will furnish sufficient shelter.

CONCRETE FLOORS ARE BEST

Corncribs, Granaries, Poultry Houses and Chicken Coops Should Be Made Rat-proof.

Concrete floors may be built for new corncribs and granaries and small mesh wire netting can be placed in the walls. Old cribs and granaries, which on coops and poultry houses should also be made rat-proof. One of the food conservation suggestions made by the Missouri College of Agriculture is rat-proofing corncribs and granaries. A few years ago it was estimated that every rat on the farm cost the farmer \$1.82 a year. With the present high prices of feed, seed and grain the cost will amount to much more than that. In most of the grain-growing states a fair estimate of the rat population of a farm would be about 25 and 50.

MAKING MONEY WITH CATTLE

Possibilities of Beef Production From Winter Grazing Shown at North Carolina Station

The money-making possibilities of beef production from winter grazing have been demonstrated in a series of experiments conducted jointly by the North Carolina experiment station and the bureau of animal industry. The cattle depended upon pasture for food during the winter months. The experiments covered a period of three years. Seventeen steers were used the first year, the average initial weight being 515.5 pounds. The final weight indicated a gain of 55.5 pounds each, and the total cost of wintering was only \$4.88 per steer. For the second year 26 steers were used. The average initial weight was 705 pounds, and the gain during 131 winter days was 17 pounds per steer. The cost of wintering each animal was \$5.75. In the third year 16 animals made an average gain of 26 pounds in 119 winter days; the cost for wintering being \$5.30.

When we take into consideration the fact that wintering animals in this way, in addition to giving them gains, puts them in such condition that they will readily take on flesh in the spring and summer, it is a strong indication that this plan of handling them is a good one, as there is nothing to lose.

PIG RAISED WITH EACH COW

With Exceptionally Good Cows the Number of Hogs May Be Increased Somewhat.

Figure on raising one pig to marketable age for each dairy cow and possibly one or two in addition for the house slops. With exceptionally good cows the number of pigs may be somewhat increased. This is, of course, where the cream is sold, but the skim milk kept on the farm.

MAKING MONEY WITH MULES

Profitable to Buy Up Stock Animals and Feed Them Over Winter—Let Them Run Loose.

Any farmer who has an abundance of corn and potatoes can make money by buying up stock mules in the large markets and feeding them over winter. They should be allowed to run loose in roony barns or sheds and never confined in stalls, as horses.

SAVE EGGS FROM BEST STOCK

Evidence of Good Qualities When Fowl Reaches 200-Egg Mark—Should Be Perpetuated.

Eggs from the best hens should not be eaten. When a fowl reaches the 200-egg mark in a season, it is evidence of qualities which ought to be perpetuated. Eggs from this kind of stock should go into the incubator.

Keep Horse Doctor Busy.

Maybe you think you can save time by feeding the horse enough in the morning to last all day. That is a good way to make a job for a horse doctor.

Encourage Pigs to Eat.

A small pen built close to the sow's pen, with a hole through which the pigs can pass and eat grain by themselves, will encourage them to eat grain much sooner.