

GOOD BIRDS ARE ESSENTIAL TO PROFITS



Excellent Specimen of Bronze Turkey Cook.

In turkey-raising, even more than with chickens or most other kinds of poultry, good birds are essential to good profits. To make scrubs pay more than a minimum is almost impossible. About the only place where one can succeed with mediocre turkeys is in sparsely-settled country, where a few hens, or small flocks of below-average turkeys, ranging for themselves in a wild state, cost their owners little or nothing, and at the end of the season bring in a little more—returning a small sum on an outlay of a still smaller sum.

Yet the overwhelming majority of turkey-raisers appear to be content to start with very average birds, and al-

low the quality of their flocks to drop a little lower season after season through careless handling, inbreeding, selling off the largest and best-grown birds for market, and so on.

Good stock does not necessarily mean show-room stock. Nor does it mean necessarily expensive stock, though of course as a general rule one has to pay in proportion for quality. Good stock, with turkeys, means essentially good utility stock; if the show-room qualities are superimposed on these, so much the better, but the utility points are the ones that will be found to count the most in the long run. The most useful turkeys are the strong, alert, hardy birds.

WINTER CARE FOR CHICKENS

Badly Ventilated House Is Always Damp—Sour Milk Is Excellent Food for the Fowls.

Most poultrymen feed oats in one form or another to their birds. We regard whole oats as dangerous when fed to youngsters.

A badly ventilated poultry house is always damp from the breath of fowls if nothing else.

Millions of gallons of sour milk are thrown away every day in spite of the fact that it makes the very best food for fowls.

It is a great mistake to inbreed too closely, as eggs are apt to be weak in fertility. Better introduce a new cock at least every three years, and be sure he is a good one.

In buying a cock bird, always select one that shows every sign of masculinity, good fighting qualities and all. The drone is useless.

Now is the time to buy your breeding birds for next spring. Better select them in the yard than in the pen at the poultry show, unless you are an expert.

SUPERIOR FEED FOR POULTRY

Dry Mash Made of Mixture of Several Ground Grains With Meat Scraps Is Recommended.

A good mash is made up as follows: Two parts of bran to one part each of middlings, cornmeal, ground or rolled oats, meat scraps or cracklings, cut clover, all parts by weight. A dry mash is simply a mixture of several ground grains with or without meat scraps, etc.

It is best to feed it from a hopper, giving a small portion first thing in the morning, then closing the hopper in order to keep the fowls busy scratching in the litter for scratch food.

Animal Food Is Essential.
Animal food, in some form, is necessary. Fowls that are confined to yards do not have the opportunity to get insects, worms, etc. They should be supplied with animal food, such as beef scraps, ground green bone, butchers' cracklings, etc. Ten per cent of animal food three times a week is advisable.

Grow Sunflowers.
Many poultrymen recommend growing sunflowers in the poultry yards. The seeds are good feed for both chicks and older birds.

CAUSE OF GAPES IN CHICKS

Small Worms Fasten Themselves to Inside Wall of Windpipe Obstructing Passage of Air.

The "gapes" often cause heavy loss in a flock of young chickens. If care is taken to keep the chicks off the ground and to keep them out of the wet there need be little danger. "Gapes" are caused by small worms that fasten themselves to the inside wall of the windpipe. They thus obstruct the passage of the air and cause asphyxiation. The gapeworm is a parasite in the common earthworm.

The chicks pick them up and thus introduce the gapeworms into their systems. Some ground that has long been used for chicken runs may become badly infested with gapeworms. A change of location is advisable. Plow up the old range, grow a crop of it and in a year or two it will likely be free from parasites.

Way to Kill Worms.
The best way to kill worms is to wash the ground before they go to it.

COMFORT IN POULTRY HOUSE

Even in Coldest Climate Artificial Heat Is Not Necessary—Hens Deserve Attention.

The housing is one of the important things in poultry keeping and it is comforting to think how it has been simplified and how much less confinement is required.

Artificial heat is not necessary. Even in the coldest climate the hens are kept with their open houses and the best results are obtained. With plenty of dry litter on the floor and a dry mash in hoppers with some green food, cut bone and a grain ration that is scattered in the straw on the floor in order to stimulate activity and create blood circulation, with good clear, clean water that is of a temperature that invites them to drink freely, the average farm flock will become far more productive than it has ever been in the past.

If the farmers of this country would pay a little more attention to the hens, if they would put them on the same basis that they have their hogs, cattle and horses, they would find that the result from the flock, taking into consideration the amount of money invested, would amply repay them for their work. Great honor is due to the farm hens of this country.

SERIOUS DISEASE OF FOWLS

Gangrene Will Pass From One to Another—Kill All First Cases and Burn Them at Once.

Gangrene of the crop is a serious disease and will pass from bird to bird. An offensive smell comes with the crop condition that causes gangrene. Kill all first cases and burn them.

If there are several cases, these, if not immediately killed, must be quarantined from the well birds and fed the sulpho-carbide compound. The runs and all parts of the poultry houses must be disinfected after the departure of such birds.

Keep the Hens Busy.
Favor the hens but keep them rustling and scratching. A chilly hen just standing around isn't doing much laying.

Alert Hens Are Profitable.
The wideawake, alert hens are the ones that leave a neat profit between their feed bill and the price the egg basket brings.

CORRECT FEEDING OF SWINE

One Scientist Gives Voluminous Figures, While Another Says Let Porkers Suit Themselves.

A well-known scientific research professor spent years in experimentation to ascertain the correct amounts of protein, carbohydrates and water to feed hogs of varying ages.

He formulated voluminous feeding tables for farmers to follow that would cause the average feeder to lie awake nights to decipher.

Now comes another investigator who produces better weights and better profits with hogs by simply allowing the porkers to feed and water themselves just as their tastes dictate.

Bridle Torture.
The bridle should fit perfectly as well as other parts of the harness. It is wrong to torture a horse with a headstall and bit that cannot be worn with a degree of comfort. If the head and shoulders of a draft animal are kept reasonably comfortable the work can be done with less strain.

Patting Horses for Sale.
If you buy horses to sell for you should remember that animals of different draft types are far from the same.



FARM ANIMALS TO ERADICATE CATTLE TICKS

Department of Agriculture Will Co-operate With State or County Authorities in Battle.

"Ticks take as much as 200 pounds of blood a year from a 1,000-pound steer; cut the milk production of cows nearly 50 per cent; reduce the some price of meat animals from one-half to one cent a pound; prevent bankers from lending money to promote the live stock industry; keep down fertility and production of farms; and make the southern farmers pay \$50,000 a year to supply the never-ceasing barbecue of blood." Thus Carl Vrooman, assistant secretary of agriculture of the United States, remarked in telling of the new tick campaign the government has started.

"Dip the tick" is the slogan which the department of agriculture has



Dipping Tick-Infested Cattle.

adopted for a special campaign against the cattle tick. Blazoned in big letters this legend will stand out in startling relief upon a two-colored poster which the department proposes to display in every post office in the tick-infested country.

"It costs less than 50 cents a head to dip the cattle of a county and free that county from quarantine," Mr. Vrooman said, "and enable its cattle to compete with free cattle at the stockyards. But before the ticks can be cleaned from a county the people in that county, by themselves or with the aid of the state, must build dipping vats which cost from \$50 to \$100 each, and must supply arsenic, which costs about five cents per head, to make the arsenical bath that kills the ticks. The people must then join in seeing that every steer or cow is dipped a sufficient number of times to kill all the ticks infesting the cattle, and prevent the seed ticks in the grass from finding a new boarding house."

The department will co-operate with a county that is ready to dip ticks by sending its expert field men to supervise the building of vats, to prepare the arsenical bath and to take charge of the dipping of cattle. The people of a county and state, however, have to provide the small amount of money necessary for the actual dipping.

PROPER SHELTER FOR SHEEP

Impossible to Keep Animal's Fleece Dry if Not Given Some Protection During the Winter.

It was formerly quite generally thought that the sheep's wool afforded it all the protection necessary during the winter. If the fleece could be kept dry it probably would retain enough body heat to keep the sheep warm, but this is impossible without shelter. When a fleece once becomes wet it takes a long time for it to dry out, especially if the weather is cold.

Much energy that would otherwise be used for growth or fattening must be used for evaporating this water. The wet fleece also gives rise to unhealthy conditions.

In Great Britain little housing is necessary, but in most places in America this would result in severe losses.

HEAVY FEEDING OF SILAGE TO A BULL

Majority of Breeders Feed It in Limited Quantities Together With Alfalfa.

Heavy feeding of silage to a bull at service is not desirable and may render him impotent. Some breeders will not feed silage under any condition, but probably the majority will feed it in limited quantities together with all the alfalfa or clover hay the bull will consume. To supplement this roughage sufficient grain is fed to keep the bull in good service conditions but not fat. Restricted and careful feeding and plenty of exercise are the fundamental requirements in keeping a bull in good service condition.

A good ration for the bull will consist of all the clover hay he will consume without waste and ten to fifteen pounds of good silage. If bull is at heavy service or it is necessary in order to keep him in good condition, feed sufficient of a grain mixture consisting of equal parts of dried brewer's grains and ground oats or bran. At \$20 per ton the dried brewer's grains are the cheapest feed, but the oats or bran will add variety and lighten up the ration. If no silage is fed, it may be desirable to feed from a half pound to a pound of oil meal daily, possibly adding corn and cob meal to the regular grain ration.

Real Crop Rotation.
A mere succession of the various grain crops is not a rotation that has any real significance. Real crop rotation to be worthy of the name must include some legume.

Prevention Better Than Cure.
The hog is a difficult animal to treat when once attacked by disease, and hence the breeder must adopt every means within his power to prevent disease from entering his herd. One can never be too careful in this matter, and the proverb, "An ounce of prevention is worth a pound of cure," is especially applicable in the management of swine.

FLOATING TEETH



Superior Animals for General Farm Work.

(By J. M. BELL.)
Some months ago the writer had occasion to purchase two "second-hand" mules to do some farm work. These mules were bought at public auction, and were secured at prices that might be termed cheap.

They were shipped to the country and put to work at once, but unfortunately, although they performed their work faithfully, it was noticed that they fell off in flesh.

When a mule or horse of uncertain age is to be bought by a farmer who is looking for cheap animals it would be advisable for him to take a veterinary along—if he (the farmer) cannot tell ages—and have the veterinary make a thorough examination before a purchase is made.

The writer has had about thirty years' experience in handling horses and mules, and can safely assert that age does not count so much in their ability to do good work as the condition of their teeth; but in order to do a day's work they must be able to masticate their food thoroughly.

LIVE STOCK IS BIG FACTOR IN FARMING

One of Most Important Elements in Making Farming Profitable—High Labor Income.

(By A. H. BENTON, Assistant in Farm Management, University Farm, St. Paul, Minn.)

Records from 400 farms in Rice county, Minnesota, show that good live stock was the most important factor in making farming profitable. The labor income, or the amount of money the farmer earned above farm expenses, interest on the farm investment at five per cent and the value of farm produce used in the household, was used as the measure of success.

The productivity of live stock is measured by the value of the returns to the farmer. Those farms having live stock returning less than 60 per cent of the average of all the farms on the basis of the amount of live stock kept, gave an average labor income of \$49 less than nothing. In other words these farmers had to take \$49 from the interest on their investment in order to pay their farm expenses. Farms with live stock returning from 60 to 100 per cent, of the average, gave an average labor income of \$148; those with live stock returning from 101 to 140 per cent of the average gave a labor income of \$256; those with live stock returning over 140 per cent of the average, gave a labor income of \$311. Live stock did not give a high labor income in every instance. Yield of crops, size of farm business, efficiency of labor and the amount of live stock are all important factors.

SALT IS ESSENTIAL FOR DAIRY CATTLE

Important Item Often Overlooked in Cow's Ration—Put in Convenient Place.

(By E. V. ELLINGTON, Idaho Experiment Station.)

An important item that is often overlooked in the management of the dairy herd is the necessity of providing salt in the ration of the cow. All animals that consume large quantities of vegetable food require salt. Babcock of the Wisconsin experiment station found in his experimental work that the cattle when deprived of salt became emaciated and were of low vitality and finally suffered a complete breakdown. He recommended that they should be fed three-fourths of an ounce per day with an additional sixteenth of an ounce for each 20 pounds of milk produced.

While salt may be provided in the daily ration by mixing it with the grain, an equally satisfactory method in practice is to keep it in a convenient place, where the animals may have ready access to it when they so desire. It may be used in the form of rock salt or placed in boxes in the feed lot. However, it should be borne in mind that salt is very essential to the economical handling and health of dairy cattle.

Give Sheep Water.
It is a queer fancy with some men that sheep can get enough drink by eating grass when the dew is on in the early morning. Stop and think how very, very little water a sheep could get that way. Give them a good spring or a trough to drink from.

Destroy Canada Thistles.
Canada thistle can be killed in one season by cutting with a sharp hoe just below every green leaf that week. If the root does not come in contact with air through the soil, the plant is smothered and it will die. If the patch is too large for a hoe a disk harrow may be used, but the root and leaf must be smothered.



FACTS

USE CARE WITH ACID SILAGE

Plan of Feeding to Keep Cows in Good Physical Condition and Induce Good Work in Dairy.

A good deal of care is put into the silo every year before it is properly matured. This year this is particularly true. Early frost, or fear of being overtaken by it, has induced many farmers to cut their corn before it had little but making silage was quite undeveloped. This often makes acid silage and cows do not do as well on it as they would on well-matured corn.

Where a man has to feed this kind of ensilage he ought to be careful not to give too much at a feeding. A small ration of this tender corn will be eaten with great relish, being practically no waste. To balance the ration and furnish a satisfying meal there should be as much hay given as the cows will eat up clean, not at the same time as the ensilage is fed, but at another time of day. Then, too, some ground feed will go very well to supplement still further the unbalanced ration provided in the corn. This should not be especially laxative in its nature; the cows are getting laxative food enough in the ensilage. Cornmeal seems a good feed; or ground oats make a rich ration. Such a plan of feeding ought to keep the cows in good physical condition and enable them to do good work in the dairy.

FEEDING CALVES SOUR MILK

Experiment of Department of Agriculture Shows Scours Are Due to Unsanitary Conditions.

By recent experiment the department of agriculture seems to show that scours are not due to sour milk but to unsanitary conditions. If the milk is not allowed to stand for any great length of time and not allowed to become unclean it is as nourishing to the young calf as sweet skim milk and as rapid gains were made in one case as in the other.

It was further shown that sudden changes from sweet to sour and from sour to sweet made no apparent change in the calf, although the milk was only a few days old. It was found by experiment, however, that sour milk does not prove so favorable in winter as in summer.

GUERNSEYS GIVE MOST MILK

Average Butterfat Test Will Not Range as High as Jerseys—There Is No Best Breed.

It is quite probable that Guernseys will average a little larger in milk production than Jerseys but their average fat test will not range quite as high. As to which breed produces the most butterfat, that is a contentious point.

High-Producing Guernsey Cow.

ties we must leave with broad statements, says a writer in an exchange. Considerable proof can be adduced by both sides, but in the final analysis the question resolves itself into a choice of individuals within the breed and their development, the consideration being given to the buyer's personal preferences and opportunities of purchase of good individuals.

We would hesitate to dispose of a good producing herd of one breed and replace it with another without giving the matter the most careful thought. The disposition of the milk, the prices the surplus animals will bring, and the cost of making the change should be fully considered.

RECORD KEEPING PAYS WELL

Everything Must Be Determined in Light of Scales, Babcock Test and Cost of Production.

Before the results of modern herd records were known, dairy cattle were admitted to the herd books, and bought and sold, chiefly on their outward appearances. There was no standard by which to determine the relation of form to production. A nice-looking cow was the one which brought the most money. What constituted such a cow was largely a matter of opinion or prejudice.

With the introduction of herd records opinions came to be based on direct proportion to one's understanding of the relation of form to production. Everything must be determined in the light of the scales, the Babcock test and the cost of milk production.

Temperature
Milk containing less than 35 per cent of butterfat should be discarded at a temperature below 50 degrees and milk containing 35 per cent or more should be stored at lower temperatures with good results.

Case of Sick Cattle
In cases of sick cattle...