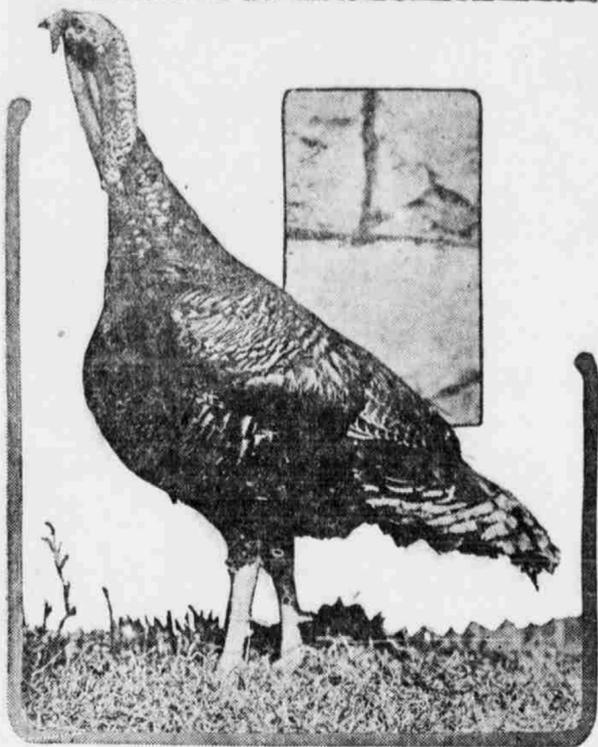


GOOD BIRDS ARE ESSENTIAL TO PROFITS



Excellent Specimen of Bronze Turkey Cock.

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 of 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.

Causes of Bowel Troubles.

The strictly healthy fowls do not have bowel complaint. Looseness of the bowels in fowls is simply an indication of indigestion, or derangement of the digestive organs.

Grow Sunflowers.

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

Securing Winter Eggs.

Winter eggs are most successfully secured by keeping small colonies.

Look After Water Supply.

Be sure to keep plenty of pure, fresh water before the hens.

COMFORT IN POULTRY HOUSE

Even in Coldest Climate Artificial Heat Is Not Necessary—Hen Deserves 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 clean, clear 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-carbolic compound. The runs and all parts of the poultry houses must be disinfected after the departure of such birds.

Range Not Necessary.

Farm range is good, but not necessary to raise healthy and profitable fowls. Many of the most successful poultry raisers have only a village lot. Success may be attained in a small way as well as on a larger scale.

Winter Sheds for Ducks.

Ducks prefer staying out in their runs all night, and this is best for them during the summer season, but they are better protected in well-ventilated sheds or houses during the winter season.

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.

LOVE'S REVENGE

By ALVAH JORDAN GARTH.

"A dreary prospect," observed Robert Bliss gravely.

"But peaceful, dear, you must admit that, and a desert may be made a paradise with love, you know."

They had been married nearly a quarter of a century, but as Mrs. Bliss wound her arms about him and looked into his eyes, loyal, confiding and affectionate, he drew her closer to him and his heart went out towards her with a new thrill, as in those far days when she was a bonny, winsome girl.

"It's worth the fighting for, the future, with such a wife as you!" he cried, his eyes brightening magically. "One blessed thing—Winnie does not know."

"Sweet dear, no," replied Mrs. Bliss, a dim mist in her eyes. "I hope she will not know till her future is assured."

It was a dreary prospect, indeed, that upon which husband and wife gazed. They had just come into possession of an eight-acre hillside farm. The house was well enough at least—quiet, roomy and comfortable, but the soil was somewhat sterile, the out-buildings were dilapidated, the fences broken and down in places. At the best the rambling expanse suggested disuse and poverty.

Mr. and Mrs. Bliss stood at the threshold of a new life. The old one had ended disastrously. The husband's business had become involved. He gave up to his creditors all he had except the legacy of an aunt, which was to be used to educate the daughter of the house, Winnie. When the last debt had been paid the creditors had deeded over to Mr. Bliss the little abandoned farm, at which they had just arrived, with their two younger children, Artie and Will.

When the parents spoke of Winnie there was an undercurrent of mingled



"Who is That Clodhopper Friend of Yours?"

anxiety and interest in the situation. They had carefully kept the truth from her. The college she was attending was over fifteen hundred miles away and she came home only once a year. She would finish her education the present fall and they did not wish to break upon that program. They knew that if Winnie learned of their distress and impoverishment, she would at once hasten to their side. They were aware, too, that Winnie was engaged to a wealthy young man in the college town named Ernest Valle. More than ever, therefore, they did not wish to disturb Winnie's plans and hopes. They led her to believe that on account of health they had removed to a new home.

Thus they had taken up a new burden of life. Of course the children were delighted with the novelty of new surroundings. To the anxious husband and wife, however, there was a difficult practical situation to face and work out.

"I hardly know where to begin," observed Mr. Bliss, as he and his wife, after walking about the barren stretch, rested on a slanting fence rail under a shady tree. "You see, I know so little about farming."

"Suppose you let a willing neighbor help you?" suggested an unexpected voice, and a bright-eyed, clever-looking young fellow of about twenty-five leaped the fence and stood before them, hat in hand and smiling in a friendly way that mitigated the solitude about them. "I'm from a mile up the road," he explained. "It seems so good to hear voices around the old deserted place here, that I found myself an eavesdropper before I realized it."

Bluff, hearty, honest Ned Dover! What an angel of helpfulness and encouragement he proved to the lonely exiles. He took the new neighbors to view his own farm, to show them what industry, patience and perseverance had wrested from the wilderness. Left an orphan at sixteen, he had helped his aged grandfather get out of the land all it would produce. Now he had a model farm and a competency.

Dover helped them buy a horse and wagon, a cow and a litter of pigs. He showed them how to lay out a vegetable garden and a field of oats and

corn. The boys were delighted to take horse and wagon and go into the timber and cart the whole winter's fuel to the woodshed. When harvest came Mr. Bliss was bronzed, rough-handed, but was full of new vigor and hope.

There was genuine comfort in knowing that the cellar was stocked with fruits, vegetables and home-raised bacon, that they need not spare feeding the broad, old-fashioned fireplace all the winter through, that there was ample fodder for the cattle, and comfort and contentment in that thrift promises a happy future where at least peace and plenty would abound.

Young Dover was a constant visitor. The Bliss people almost welcomed him as a member of the family. Never was there such a loyal, helpful friend. The children loved him, the parents day by day increased their esteem of his hopeful, sterling character, and then one cold evening, unexpectedly, without a word of warning, Winnie came home.

Amid the fond welcome of loving hearts Winnie broke down in tears. Then, alone with her mother, she narrated a pitiful story of disappointment and suffering. She had found her supposed friends capricious and treacherous. Her high ambition had been daunted by the hollowness and superficiality of those who should have set a higher example. Ernest Valle, to whom she had been engaged, had forfeited his allegiance to her by attentions to the daughter of a millionaire.

"No," she answered almost smilingly to the questioning look in her mother's eyes, "my heart is not broken! I fancied I loved him, but his despicable act has changed all that to contempt," but there was a latent bitterness and resentment in her mind. "Oh, mother," she continued fervently, "it is so good to be at home with true loving hearts. And you are all looking so strong and well and happy."

The next day Winnie met Ned Dover, and the next, and innumerable days after that. It might have been the pure fresh air, or home comfort, but the bloom came back to her cheeks, and the dear delightful evenings which the young farmer passed with the Bliss family began to be looked forward to with genuine appreciation by Winnie.

One day who should drive to the farm from the village but Ernest Valle. In the meantime Winnie had learned by letter of his dismissal by the young lady of wealth he had vainly courted. Valle took up his quarters at the village hotel and called three times a week.

One afternoon he arrived with a firm determination in his mind to "patch up" their "little tiff," believing himself irresistible. Winnie tolerated him. She was not revengeful, but she still smarted under the memory of his mean perfidy.

She neither encouraged nor discouraged him, but she patiently awaited her opportunity. Valle was getting sentimental moment by moment. As they passed the Dover farm, its young owner, grubbing with a hoe, lifted his cap.

"Who is that clodhopper friend of yours, may I ask?" questioned Valle.

The answer sent him back to town instantly, and thence forthwith back to his friends in the East, for Winnie had replied, promptly and proudly,

"That is the man I honor and respect—my future husband."

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RUSKIN HAD MADE BEVERAGE

How Author Whom the World Reverses Prepared Coffee for His Guest.

Ruskin not only preached the gospel of efficiency, says the Youth's Companion, but when the exigencies of the occasion demanded he practiced it also. In her entertaining book of reminiscences, "Thirteen Years of a Busy Woman's Life," Mrs. Alec Tweedie says that her father, Doctor Harley, a well-known London physician, was a great friend of Ruskin's and often staid at Brantwood. One night Ruskin asked Doctor Harley whether he liked tea or coffee before he got up.

"A cup of tea," he replied.

"Why don't you choose coffee?" "Well, to tell the truth, I have lived so much abroad that I don't fancy English coffee; it is generally so badly made."

His host said nothing. The next morning Doctor Harley was awakened, and a strong smell of coffee permeated the room. Turning to a servant he asked, "Is that my cup of tea?"

"No, sir, it is Mr. Ruskin's coffee."

"Mr. Ruskin's coffee! What do you mean?"

"The master was up early. He roasted the coffee himself, he ground the coffee himself and he hopes you will like it."

Doing His Part.

"Are you working for us?" asked the suffragist of a meek-looking man who was loitering about the entrance to a hall where a mob of women were holding a political rally.

"Why, yes, in a manner of speaking," replied the meek-looking man. "If you believe with Milton that 'They also serve who only stand and wait.'"

"What do you mean by that?"

"I escorted my wife here and I'm waiting to take her home."

Curse of Poverty.

"The Jibways boast that their ancestors came over in the Mayflower." "Indeed!" replied Mrs. Noorich haughtily. "If they contemplate a trip to Europe and that vessel were still in service, I dare say they would have to go back in the Mayflower."

FLOATING TEETH OF HORSES AND MULES



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.

Upon careful examination of their teeth it was discovered that their grinders were worn and uneven, and that consequently they could not thoroughly masticate their grain or forage.

Therefore it was a case of either selling them at a loss or having their teeth repaired.

My mules were shipped to a veterinary surgeon, and after a thorough examination of their mouths, he expressed the opinion that they could be helped.

It was discovered that one of the mules had a boil ulcer in its mouth, caused by the loss of an upper grinder. The lower grinders having become elongated, had cut into the upper jaw, causing ulceration and much pain when the animal attempted to eat either grain or forage.

These long teeth were sawed off, but in the attempt the mule became restive and in spite of the efforts of two strong men, pulled back, and the tooth was extracted. Her other teeth were filed down and put in as good order as possible. This mule was shipped back to the farm and in a few days began to improve in flesh. A healing lotion was used in her mouth for several days. The ulcer disappeared, and after that she had no trouble whatever in masticating either hay or grain, and performed her work so well that she was finally sold at a profit—a few weeks after being cured.

When she was bought at auction she was a living skeleton and the other one, while fat when brought in town, had evidently been fed on soft food, for he could neither masticate hay or grain in sufficient amount to keep him so. In fact, he practically refused to eat corn either on the cob or shelled and had to be fed on meal and grass.

When his teeth were treated he was able to masticate his food fairly well and did very good work, selling at public auction after hard work on the farm for some months, for what he cost.

There are thousands of horses and mules that, arriving at old age, are still capable of performing hard labor every working day in the year, if they can thoroughly masticate their food; and the writer would advise that when horses or mules of this class begin to

fall off in flesh they be taken at once to some reliable veterinary surgeon for examination.

If they are past treatment they should be sold at auction for what they will bring for no animal can perform a day's work satisfactorily when its teeth are in condition to prevent the mastication of its food properly.

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 \$506; those with live stock returning over 140 per cent of the average, gave a labor income of \$911. 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.

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 condition 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.

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 six-tenths 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.