

LESSONS IN PIG FEEDING

The average market hog should weigh 300 pounds at eight months of age. For the pig two to six months old protein is the most important feed. Without protein it cannot build up the lean meat or grow to any size. Protein is found in skim-milk, clover and alfalfa. Corn is nine-tenths carbohydrates, oats have a little more protein than corn, but not sufficient for the pig. Rye contains a little more protein than corn. Barley is one of the best feeds on the farm; it contains more protein than does rye. Even if you have corn and clover it is still necessary for the young pig to have some protein food—cow peas, soy beans or Canada field peas. There is nothing better grown on the farm to balance up the ration.

Rape is bulky feed for fattening and it is necessary to use some nitrogenous feed with it. If you feed clover hay in racks the pigs will not eat as much of it as if it were chopped up as finely as possible, scalded with steam and mixed with the slop. You can buy middlings, low-grade flour; it has protein, but not enough. Tankage, meal and bloodmeal are very much richer than shorts. Perhaps the most concentrated nitrogenous feed we have is tankage. It was found by test that 60 per cent tankage contained about 46 per cent of digestible protein. There is danger of feeding too much protein if it is worse than feeding too little.

During the last two months of the feeding period carbohydrates or fattening feeds are of greater importance. We must use feeds that are digestible, like corn, wheat, flour or middlings, but bran is practically indigestible for the pig. Oil cake contains as much protein as middlings and ranks with meal, bloodmeal or oilmeal; the last is perhaps the better because it contains much ether extract.

It is much better to mix feeds than to feed corn to pigs at one time and something else at another time. Otherwise the pigs are liable to get too much of the protein feed, lose their appetite for corn and become stunted for their lives.

Nine lots of pigs were fed in an Illinois experiment station by Professor Dietrich. He gradually reduced the feed of two lots of young pigs until he had taken away just half of the ration, and then they were making twice the gain they did before. Lots 5 and 6, which were fed according to the old scientific feeding standard, weighed 270 pounds at nine months of age, while the two lots fed by Professor Dietrich's method averaged 298 and 305 pounds, respectively. How was this done? By holding the pigs down at the beginning, by feeding less protein. The gains were not only larger, but the gain at the close was made off of cornmeal, which is a cheaper feed. If allowed to do so pigs will eat too much protein at first and that will keep their weight down forever afterward.

This is a valuable result, but one must be careful not to misinterpret it. The more common error is to feed too much. Professor Dietrich's experience gives no sanction whatever to the attempts to raise hogs on corn and water.

These pigs in lot 1 were started in the experiment when they were three months old, weighing 50 pounds, and were fed until they were nine months old, making a gain of 20 pounds; they had carbohydrates. The pigs in lot 2 were fed the same as in lot 1 on carbohydrates in the form of corn, and had mineral matter in the form of air-slacked lime, charcoal, ashes and a few loads of dirt. They gained 70 pounds. The pigs in the remaining lots had protein in addition to the mineral matter. The pigs in lot 3 weighed 240 pounds. This bunch were fed straight corn on clover pasture and they made a gain of 2 1/2 times that of lot 2.

Pigs can be overfed on skim-milk. In a recent Illinois experiment pigs which were fed three times a day made larger and more economical gains than pigs that were fed twice, but the former were not given all they would eat each time.

The experiment shows that a two-month-old pig will not weigh much over 30 pounds; at three months, 50 to 60 pounds. At five months of age the pig has gained 50 pounds in about three weeks; at seven months he weighs about 250 pounds and has put on 150 pounds of pork in three months. It takes two months to put on the next 50 pounds and the pig gains only 50 pounds from nine to twelve months of age.

School Farms in Italy.
More and more attention is being devoted in northeastern Italy to the scientific development of the country's possibilities in agriculture and as a source of supply of timber. Every school of agriculture in Venetia has adopted with success the plan of having a large experimental farm for practical instruction, and a report to the British Foreign Office from our counsel at Venice speaks of the results of this and other progressive measures. — Manchester Guardian.

"You haven't much of a memory for dates," said the conversational boarder.
"None," replied Farmer Corntossel. "I used to have. But it interferes with business when you're selling spring chickens."

For the Honeymoon.
"Now that you and Cholly are engaged, why don't you make him stop smoking?"
"He does smoke a great deal, but it's this way. He gets a trip to Niagara Falls for 200,000 coupons."

A Windy Month.
The man in the street,
Just remember,
Sees some history next
in December.

Young people can't appreciate that those who have things spent years in getting them and that nearly every one who has many has use with it.

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Diamond Ring will be given to the lucky number on Christmas morning.

One ticket with every twenty-five cent purchase.

Diamond Ring guaranteed by Harry Levinson.

He sells Diamonds at 101 West Federal street.

Youngstown's Diamond Expert.

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GOOD SOCIETY without one of our classy Suits From \$10 to \$30

COLD WEATHER without one of our Overcoats—Plain, Presto or Military Collar From \$12 to \$30

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CHILLY HEAD without a Fur Cap From \$1.50 to \$10

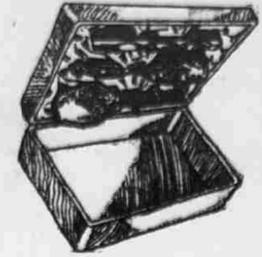
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THE STORE THAT SAVES YOU MONEY HARTZELL & ROSENBAUM



Do our Christmas Shopping Early! A FULL AND COMPLETE STOCK TO SHOW YOU.

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Visit our premium department. The largest department in the state.

SOMETHING FOR THE BOYS

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 - Slip-On Rain Coats\$4 to \$5
 - Fur Collar and Cuff Overcoats \$5 to \$8
 - Presto Overcoats\$5 to \$10
 - Fur Polo Caps\$1 to \$1.50
 - Beaver Hats\$1 to \$1.50
 - Polo Caps50c
 - Classy Sweaters50c to \$3
 - Underwear25c to 75c
 - Dress Shirts50c to \$1
- WE CLOTHE THE BOYS BECAUSE WE KNOW HOW. Always Showing Something New.

EXPERIENCE IN LAMB FEEDING.

The time to commence lamb feeding should be governed by the circumstances and conditions that surround the farmer, writes John M. Jamison in the National Stockman. If he wants to finish the work about the holidays he must commence early. If it is the plan to feed and shear the feeding should begin much later. Clover must be used early before frost strikes it, for frosted clover is of no value for lambs. If there is blue grass it can be grazed till inclement weather drives to shelter and longer than that when the fields adjoin the shelter and alfalfa can also be grazed after the tops are frost bitten, but the grazing should not be close.

On our farm there is a field of blue grass adjoining the lots that usually has a good coat of grass in the fall. This adjoins all other fields of the farm, gates opening into them.

Whether the lambs come in early or late the blue grass pasture is almost always used to help start the lambs on feed, grazing during a part or all day when the weather allows and going to the barn and lots at night to find alfalfa hay and a little corn in the racks. Very little hay and corn are put in at the start, as it is best to have them fresh each time they go to them. If there is any hay left over it goes to the horse barn. The corn goes to the pigs or is put some place where the air will purify it so it can go back to the racks in a day or two.

Gradually the corn and hay fed are increased as the blue grass falls. This way of feeding is kept up till the lambs do not care any more to leave the lots for the blue grass pasture. Then the gates are closed, and they do not leave the lots again, unless by accident, till they go to market.

It used to be my custom to work them up to full feed in thirty days, meaning by full feed all the corn they would eat from one feeding time to another. Keeping up to this amount meant too often that some of the lambs would fall to eat, making the lot irregular as feeders. To overcome this fault the plan was adopted to feed a little short of what they would eat, so that all would come to feed every time. This was much more satisfactory than the former plan, and they all seemed to thrive better. The rule is to put in the rack a stipulated amount of ear corn, allowing them to shell it, which they do without protest, finishing before they leave the rack. If two men work at feeding the corn feeder is followed by the hay man putting the hay in on top of the corn. If the hay is alfalfa they do not seem to care which they get first.

A Modern Equivalent.
"My grandmother says they used to have barn dances in her day."
"I see the idea. Now, why couldn't we get up a garage hop?"

The feeding is done twice a day at as near stated times as possible. The morning time to feed should not be too early, as they are slow to start. Nor should the evening time be too late. For the feeder wants to see that all come to their feed promptly. It may do to feed a hog after dark, but never a lamb. At every feeding time the cobs and refuse hay should be thrown out of the racks. All of the hay we feed is alfalfa, and what the lambs do not eat is taken to the horse barn, where the horses are glad to get it and eat it to the last straw.

Training the Colt.
Never tease or teach the young colt tricks or frighten him. His actions on such occasions may be funny at the time, but the after results are usually far from funny. For instance, I know of a case where a farmer had thought he would scare the wits out of a colt by jumping out at it just as it was entering the stable door. He accomplished his purpose all right, but it was months after that before the colt could be induced again to enter that door of its own free will. Begin to teach the colt customary words of command while he is yet young. If you spend time enough with him he will learn who, back, gee, haw, etc. Always speak to him in a plain, natural tone; be distinct in expressions and never yell or scream at him. This only scares him and makes him nervous, thus doing a great deal of harm. A colt can be spoiled by yelling at him just as quickly as by using a whip too freely. Speak quietly, but firmly.

Dairy Breeds All Have a Place.
The battle of the dairy breeds still goes on, but the views regarding the utility of the breeds and their adaptations are becoming more sane. It is now coming to be more and more recognized that there is a place for all the breeds of dairy cows and that that place is not quite the same for each. Thus the Ayrshire does particularly well in climates a little stern. The Holsteins do well where much milk is wanted. So of the others. Each will best fill a niche that is a little different from that filled by the others.

Lessons From Scotland.
For the American dairyman the striking features of Scotch dairying are the uniformly good cows kept, the excellent care given them and the attention paid to feeding them economically on a small amount of grain, never wasting concentrates on cows that are not producing heavily.—Illinois Experiment Station.

The Way They Answer.
"And what does the candidate say to the charge of graft?"
"Says hat the American flag is the grandest emblem on earth."

ALFRED G. BOOKWALTER
State Secretary of the Y. M. C. A. of Ohio.



Mr. Bookwalter has a keen sympathy for all branches of work. As a boy he worked for the Western Union Telegraph company. In high school he made a specialty of mechanical drawing and took night classes in Dayton Y. M. C. A. For several summers he worked as a hired hand on farms. Later he was cashier in a large grocery in Montana. At Yale he took both his B. A. and M. A. degrees. He pursued a special course in machine shop work in Massachusetts Institute of Technology.

He studied industrial conditions and the methods of leading schools of Germany. Returning to America, he became one of the organizers and officers of the National Society for Promotion of Industrial Education.

Hay Ration For Horses.
There is danger of some horses eating too much hay. No horse should be allowed to gorge itself. Feed the first thing in the morning just enough hay to be cleaned up in one hour. In the evening feed about twice that amount. A horse at work should have plenty of good clean grain three times a day.

THE LIMIT OF CAUTIOUSNESS
Liveryman Demands Proof of Honesty from Man Who Would Rescue Fire-Trapped Horses.

REAL JUDAS FEAST AT TOKYO

Enmity in Division of Spoils and Tips Between Guides Leads to Tragedy.

Kosaku was the head guide at a big Tokyo hotel. He and another guide called Tomora, who also acted as policeman and incidentally as a spy on foreigners, were constantly quarreling about the tips and spoils they extracted from globe-trotters, says the Wide World. Kosaku finally proposed reporting Tomora to the police authorities and so destroying his hopes of a pension. At the end of the year Tomora one day dressed himself carefully in foreign clothes, loaded a revolver, put it in his pocket, and invited the unfortunate Kosaku to a feast at a tea house. It was indeed a Judas repast. The two men ate together and drank. One after another, as little stone bottles of sake were emptied, the former enemies swore in bibulous phrases that all was forgiven. Together they started to return to the hotel, both apparently full of happiness and peace of mind and resolved that in future they would fleece the stranger within their gates hand in hand, as beloved brethren should. Then, just by the bridge near the hotel—the untidy bridge where the trams meet—Tomora turned like a wolf and suddenly shot Kosaku in the neck and body—shot with unerring aim, for Kosaku fell dead without a moan. Tomora then killed himself on the spot. He had not forgiven, but was there not a supreme and cruel treachery in spending his last hours making merry with his victim?

THE LIMIT OF CAUTIOUSNESS

Liveryman Demands Proof of Honesty from Man Who Would Rescue Fire-Trapped Horses.

The man who refused to be saved from drowning because he had never been introduced to his would-be rescuer was an incorrigible bohemian compared with the liveryman the commercial traveler met on his last trip west. One night the livery stable caught fire. The stable was old, the fire had made considerable headway before the alarm was turned in, and it seemed inevitable that most of the horses must perish. To the liveryman who stood in the street cursing and wringing his hands an athletic stranger rushed up and said: "Tell me in what part of the building your best horses are stabled and I will save some of them." The liveryman ceased lamenting and eyed the stranger suspiciously. "Sir," said he, "can you produce proof that you are square in your horse deals?" "Square hell," said the stranger and

dashed into the stable. With the assistance of a fireman he saved five horses, but not until they were safely stabled elsewhere did the liveryman cease to suspect the stranger of horse-stealing.

Not Ready to Be Finished.
The physician of an uptown hospital in Philadelphia had a surprise the other day over a patient supposedly suffering from a fractured skull. He was taken to the operating room in a semi-conscious condition. Two of the surgical chiefs were there and one of them was just about to begin work on the man when a telegram was handed to him. After reading it, he turned to the other with the remark, "My father is critically ill in New York; you must finish this fellow."

The man was sufficiently conscious to hear what was said and, misunderstanding the import of the word "finish," jumped from the table and rushed out.

Caesar's Lament.
The wild beasts gnashed their teeth and roared like a circus callopie; the gladiators shouted hoarsely; the arena was knee-deep with gore. In the amphitheater the pleasure-seeking populace clamored tumultuously. "More blood! More death!" they yelled ferociously.

Great Caesar in his private box heard their cry and sighed. "Would that I might grant their prayer," he muttered, "if only—and imploringly he raised his eyes heavenward—"I could pull off an automobile cup race!"

Great Caesar wept. For with all his boasted power he was unable to hasten the flight of time.

A Headache Cure.
The sick headache that is caused by indigestion may often be cured by dissolving a teaspoonful of powdered charcoal in half a glass of hot water.

Charcoal tablets are also effective for a bad head or a teaspoonful of baking soda in a glass of hot water. Try these remedies or hot water and salt before resorting to medicine. The headache tablet habit is bad to acquire and worse to break. Never take any headache tablet just on the recommendation of a friend. Many of them are injurious to the heart.

in for it.
"There is a belief that summer girls are always broke."
"Yes; I got engaged on that theory but it looks as if I'm in for a wedding or a breach of promise suit."

At the Euchre Club.
Katherine—She euchered him in to marry me.
Kidder—Well, you see, I am naturally a little bit chicken-hearted.



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He Knew.



Porker—What did you run for?
Rooster—Well, you see, I am naturally a little bit chicken-hearted.

Nodd—I can tell you, old man, I am feeling pretty good this morning; we just got word that my wife's family is coming to spend Christmas with us.

Topp—Good! Why good over such a calamity?
"Well, you see, if they weren't coming to us, we should have to visit them."

Mildred—Papa, I am going to make mamma one of those three-dollar one-piece that the Woman's Home Companion says can be made at home for seventy-five cents.

Papa—(remembering past years)—Certainly, dear! Hurry, tea doing. That ought to be enough to cover the expense.

Business stationery—Dispatch office.