# A Page for the Farmer and His Family

## Farm Live Stock

### RECORD IN CATTLE TESTING

**Federal and State Authorities Have 537,240 Head Under Supervision in Many Sections.**

From time to time the bureau of animal industry publishes a "communique" showing conditions along the wide battle front where the allied forces of federal and state authorities are fighting cattle tuberculosis.

The latest report indicates that since the beginning of the movement in 1917 the owners of 500,000 cattle have placed their herds under supervision.

On April 1, 1920, 25,793 herds scattered throughout the United States, with a total of 537,240 cattle, were under the co-operative supervision of the department of agriculture and state veterinarians. There were 2,230 accredited herds—60,237 cattle known to be free from the plague.



**A Typical Native Scrub, and Obstacle to Progress in Live Stock Improvement.**

Over 115,000 cattle were on the waiting list to be tested as soon as the veterinarians can work with them. Still another lot of 258,331 cattle have passed through the first stage of the test without showing any dangerous symptoms. The least optimistic estimate indicates that two-thirds of this number will conclude the test satisfactorily, and add 170,000 cattle to the accredited column.

### HAMM HAS PUREBREDS ONLY

**South Dakota Farmer Asks Enrollment in "Better Sires—Better Stock" Movement.**

Declaring that not only all his sires but likewise all his female breeding animals were purebred, Charles P. Hamm, a South Dakota farmer, applied for enrollment in the "Better Sires—Better Stock" campaign conducted by the United States department of agriculture in co-operation with state agencies. He is a breeder of Shorthorn cattle, Percheron horses, Duroc-Jersey hogs, Rhode Island Red chickens, and Bourbon Red turkeys.

The better-sires movement is aimed particularly at the use of superior purebred sires, but the majority of those enrolled also keep some female stock. Mr. Hamm, however, is the first person officially listed as keeping five classes of live stock in which all the animals—both male and female—are purebred.

### GRAIN FOR HOGS ON PASTURE

**Full Feed Is Not Economical Where Grass Is Plentiful—Some Protein Feed Favored.**

Hogs on pasture require grain for greatest profit in pork production, but a full feed is not economical when pasture is plentiful and grain high-priced. When corn alone is fed a limited ration is considerably cheaper because the forage crop takes the place of much of the grain.

Some protein feed, such as tankage or skim milk, is recommended to be fed in small quantity along with corn and pasture to pigs weighing less than 100 pounds. Pork production is usually too expensive when such feeds are given to large hogs, especially if they are on such pasture as alfalfa, clover, rape or soy beans, all of which are high in protein.

### INDIANS FAVOR IMPROVEMENT

**Live Stock Owned by Navajos in New Mexico to Be Bred to Purebred Sires in Future.**

More than 191,000 head of live stock owned by Navajo Indians in New Mexico henceforth will be bred only to pure-bred sires. The female stock includes 3,000 cattle, 8,000 horses, 150,000 sheep, and 30,000 goats, besides smaller numbers of swine and poultry.

The Indians have signified their support of the "Better Sires—Better Stock" movement. The United States department of agriculture is co-operating in supplying the Indians with literature dealing with live-stock improvement.

### ESSENTIALS FOR SWINE

The following combination should be kept before the hogs at all times:

One hundred pounds of slaked coal or wood ashes, four pounds air slaked lime, two pounds common salt, one pound epsom salts.

Mix thoroughly and sprinkle over the combination the following solution:

Two pounds copperas dissolved in one quart boiling water.

## PASTURING HOGS MOST ESSENTIAL

**Interesting and Instructive Experiments Made With Sows at Illinois Station.**

### SIZE OF LITTER INCREASED

**Popular Belief Substantiated That Young Mothers Produce Smaller Pigs—Variation in Length of Germination Period.**

A careful study of records relating to the birth of 720 litters of pigs at the University of Illinois reveals many sidelights for those interested in hog raising. The 720 litters contained 5,840 pigs of seven distinct breeds. The following conclusions are drawn in bulletin No. 226 of the University of Illinois agricultural experiment station.

On the whole, the belief that young sows produce smaller pigs than do older sows is substantiated. Likewise the data substantiated popular belief that up to a certain age, about three years, there is an increase in the size of litter as sows grow older.

The older sows farrowed 12.3 per cent of dead or immature pigs as compared to 8.1 per cent by the younger sows.

It is doubtful whether there are any variations in farrow attributable to the season at which pigs are farrowed.

**Increase in Litter.**

In succeeding litters from the same sow there was an increase in number of pigs per litter and in the weight of individual pigs until the fourth litter, at which time the sows were three-and one-half years old.

The records obtained from 549 litters showed a wide range, 98 to 124 days, in the length of gestation period, with an average of 114.58 days. However, 93.6 per cent of the litters were



**Farmers Should Be Careful That Pig Pens Are Clean and Dry.**

farrowed between the one hundred and eleventh and one hundred and seventeenth days. The general belief that old sows have a gestation period one to three days longer than younger sows seems to have no very good basis.

**Neither Sex Predominates.**

There was little, if any, correlation between the length of gestation period and the birth weight of pigs, and the sex of pigs in relation to the length of gestation shows no tendency for either sex to predominate more than normal.

The average size of litters was 8.1 pigs. The average weight of a litter was about 20 pounds. The average weight of pigs in litters with fewer pigs than the average was 2.67 pounds, and in litters with more pigs it was 2.57 pounds. The grand average of all pigs was 2.55 pounds.

### PROVIDE GOOD GREEN FEED

**Unoccupied Space in Garden Should Be Seeded to Rapid Growing Crop of Some Kind.**

The average poultry keeper is always short of succulent green feed during the late summer and early fall, and provision should be made for a supply. Every bit of ground in the garden from which early crops have been harvested should be seeded to chard, rape, lettuce, kale or whatever makes the most rapid growth in your locality.

### ALFALFA AND SWEET CLOVER

**Two Crops Are First Cousins But Decidedly Different in Making Their Growths.**

Cut alfalfa when the buds of the second growth begin to show at the crowns of the plants. Cut sweet clover when the blossoms are about half out and raise the sickle bar at least four inches. These two crops are first cousins but they are decidedly different in this respect: Alfalfa shoots from a crown; sweet clover shoots from buds on the main stem.

### CAUSE OF OVERGROWN WINGS

**Result From Defective Brooding Conditions or Lack of Vitality—Clip Them Off.**

Overgrown wings in brooder chicks result from defective brooding conditions or lack of vitality. Often the wings really are not overgrown but only appear so because the chicks, being weakly, let them hang down. If they develop to the point where they are a burden to the chick they should be clipped off.

## AUTUMN IS CLEARING TIME FOR FARM LAND

**Convert All Waste Places Into Revenue Producers.**

**Goats, Sheep or Cattle Are Favored in Order Named for Keeping Down Sprout Growth—Methods for Removing Stumps.**

The fair-weather days of the autumn afford the farmer an opportunity to undertake the clearing of land for which he has no time in the busy summer months, and which can not be done while the land is wet in the spring. On thousands of farms there are cut-over tracts which should be converted into revenue producers as soon as possible. If the owner decides that the land in question is better suited to crop production than to forest growth, a careful study of the most economical method of removing stumps and small growth should be made. Most cut-over land passes through three stages before reaching its greatest agricultural value. The waste and small growth is disposed of first, then it is allowed to remain in stumps for a few seasons, until the smaller stumps are dead and decayed, during which time it is used for pasture or may be cultivated. Finally, all the stumps are removed.

Generally it is best to cut brush as close as possible to the ground and avoid leaving sharp points that might injure stock. However, if the wood is of no value and the ground is not to be cultivated before the stumps are removed, it may be best to cut the trees rather high above the ground. If the stumps are left three feet high there will be less sprouting than if cut low down, and such stumps are more easily pulled.

The most successful method of keeping down sprout growth is by heavy pasturing by goats, sheep, or cattle, in the order named. Any sprouts not killed by pasturing should be cut or knocked off with the head of an ax.

There are a great variety of methods used in removing stumps, by means of burning, pullers and dynamite. Farmers' Bulletin 974, "Clearing Land," prepared by the United States department of agriculture, contains information designed especially for persons interested in this subject. A copy can be had on request.

### PREPARE LAND FOR ALFALFA

**One of the Best Ways to Get Moisture and Well-Packed Soil Is by Disking and Rolling.**

Fall seeding of alfalfa requires moisture and a soil which is well packed. One of the best ways of getting such a condition is to disk the ground as soon as oats or small grain is taken off, then plow it and pack it thoroughly by harrowing it or rolling. Soil which has been in a cultivated crop and removed early, such as early potatoes, makes good ground for fall seeding. On ground of this kind a thorough disking and harrowing will often put it in good shape for alfalfa. On many of our types of soil alfalfa will do better if limestone is applied. This limestone should be applied after the ground has been plowed and then harrowed in to give best results.

### SWINE FOR WINTER MARKETS

**Temptation to Fatten Quickly on Corn Alone Is Liable to Cause Loss of Animals.**

Hogs for the early winter markets should be carefully fed. The temptation to fatten quickly on corn alone is liable to cause the careless farmer the loss of one or more animals. A better and a safer feed is wheat middlings and wheat bran made into a thick slop. Give a feed of this just what the hogs will eat up clean twice a day, then give a moderate feed of corn.

Keep a plentiful supply of fresh, clean water in the pens. See that the trough is clean. Have clean, dry pens and yards. Dust the pens once a week with air-slacked lime.

### POTATO DISEASE EXPLAINED

**So-Called Blight Due to Tip-Burn or Small Insect Known as the Leaf-Hopper.**

Much of the so-called potato blight which is to be found is due to what is really tip-burn, or it may be due to a small insect known as the leaf-hopper. The tip-burn is caused by the dry weather and extreme heat as the sun and wind draw the water from the plant faster than the roots can supply it from the ground. The leaf-hopper is a small, greenish-like insect, which will be found jumping from one plant to another as the plants are moved.

### BORER EATS CLOVER ROOTS



Here are three life stages of one of the worst clover pests, the root borer. The root borer will attack peas as well as clover. The larvae and the beetles of the borer literally riddle the roots of the clover plant. The borer may be the trouble with that sickly, "spotty" clover patch of yours. Do a little investigating.

## DAIRY FACTS

### AGE OF CATTLE DETERMINED

**Each Year Leaves Its Mark on Grinders of Animal, Gradually Wearing to Stubs.**

The age of cattle can be approximated closely by the appearance, development and subsequent wear of their second incisor teeth, according to Farmers' Bulletin 1066 just issued by the United States department of agriculture.

Cattle have eight incisor teeth, all in the lower jaw. In the calf at birth two or more of the temporary or first incisor teeth are present. With the first month the entire eight incisors have appeared. Each of the six stages in the development of the teeth is shown in the bulletin by illustrations which will be very helpful to the person desirous of becoming proficient in judging the age of cattle.

As the animal approaches two years of age the center pair of temporary in-




**(1) Internal Face of Incisors of Calf. (2) At Two Years. (3) At Three Years. (4) At Four Years. (5) At Five Years. (6) At Twelve Years.**

cisor teeth or pinchers are replaced by the permanent pinchers, which at two years attain full development.

At from two and one-half to three years the permanent first intermediates are cut and are usually fully developed at three years.

At three and one-half years the second intermediates or laterals are cut. They are on a level with the first intermediates and begin to wear at four years.

At four and one-half to five years the corner teeth are replaced, the animal at five years having the full complement of incisors with the corners fully developed.

At five to six years there is a leveling of the permanent pinchers, the pinchers usually being leveled at six and both pairs of intermediates partially leveled and the corner incisors showing wear.

From seven to eight the pinchers are noticeably worn; from eight to nine the middle pairs; and by ten years the corner teeth.

After six years the arch gradually loses its rounded contour and becomes nearly straight by the twelfth year. In the meantime the teeth have become triangular in shape, distinctly separated, and show the progressive wearing to stubs.

### NEGLECT BUTTERFAT TESTS

**Operation Is Comparatively Simple Where Proper Facilities Are Available.**

Many dairymen maintain milk record sheets continuously and well, but they fall short on doing the dairying sleuth work up brown, in that they neglect to make frequent and regular butterfat tests of their milk.

This chemical operation is relatively simple where the proper facilities are available and every farmer with a little practice will be able to get accurate and dependable results from its use. A simple, handpower Babcock test outfit is inexpensive and will pay for itself in a few months in the increased efficiency which attends its use.

### DAIRY NOTES

Love for your work is the key to your success. Learn to love your cows.

* * *

The season of the fly pests, which make life miserable for stock during the summer, is on.

* * *

If it pays to raise calves at all it pays to feed and care for them from the day they are born.

* * *

Each calf should be fed separately, carefully regulating the amount of milk by the size of the calf.

* * *

Do not mix new, warm cream with cold cream until it has been cooled in the shotgun can provided for this purpose.

* * *

Use a metallic strainer. It is practically impossible to keep cloth strainers sweet and clean and free from bacteria.

## DAIRY BARN IS MOST IMPORTANT

**Modern Buildings and Equipment Necessary on Farm.**

### HAS BEST OF NEW FEATURES

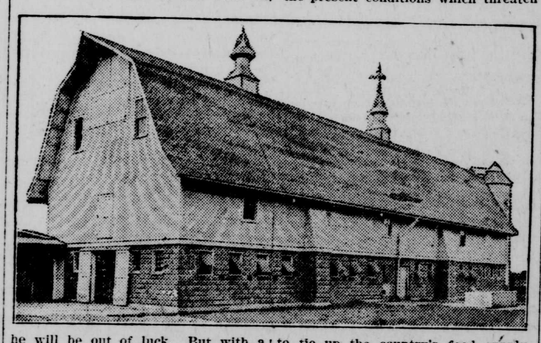
**Design Shown Here Is Excellent Type of Dairy Barn Embodying Most Important Improvements of Barn-Building Craft.**

By WILLIAM A. RADFORD.

Mr. William A. Radford will answer questions and give advice FREE OF COST on all subjects pertaining to the subject of building work on the farm, for the readers of this paper. On account of his wide experience as Editor, Author and Manufacturer, he is, without doubt, the highest authority on all these subjects. Address all inquiries to William A. Radford No. 1827 Prairie avenue, Chicago, Ill., and only inclose two-cent stamp for reply.

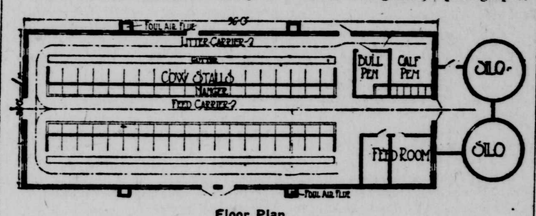
The successful farm is one that has the most modern types of buildings and the latest labor-saving equipment. In view of the alarming tendency of the youth to leave the farm as soon as he feels his "oats," progressive farmers are trying to make the farm as attractive and as efficient as possible. In short they are endeavoring to give the hired man time for recreation and amusement. The days of drudgery are passing. And modern buildings with equipment that makes the work a pleasure are the principal factor.

In the farm building scheme there is no building more important than the dairy barn. It is the source of revenue day in and day out. Crops may be poor, and unless the farmer has his dairy herd to fall back on,



he will be out of luck. But with a good healthy herd of milk producers, he is sure of an income regardless of weather or crop conditions. For that reason he should give the dairy barn in which he houses his cows a great deal of attention and study. Many elements have to be considered.

An excellent type of dairy barn embodying most of the important features of barn building craft is shown in the accompanying illustration. It has been designed to hold a large herd and house them under ideal conditions. Rising from a substantial foundation of concrete, its first story is concrete block up to the wall plate supporting the hay mow. Above this it is frame construction supported by stout trusses and covered by a heavy waterproof gambrel-shaped shingle




**Floor Plan.**

roof. This barn has a large stall floor and abundant storage space above.

One of the important features of a dairy barn of this size is ventilation. This is amply provided for in this barn by means of foul air flues and windows which let in germ-killing sunshine, the greatest disinfectant known to science. The foul air, which is warmer than the fresh, rises through these flues and is carried off while fresh air takes its place. The ventilators on the roof provide a source of fresh air.

The barn which is 36 by 96 feet has been arranged so as to have two rows of cow stalls facing in toward a central feed alley. The floor is concrete and so laid as to provide gutters and manger troughs. These stalls are of the latest design and equipped with stanchions that are easy for the cow and yet restrict her to certain limits. Modern mangers of steel or concrete with partitions prevent greedier members of the herd from taking more than their share. It also permits the farmer to lay out definite rations in individual cases.

At the end of the barn are the special pens for the bull, calves, and a feed room. Two silos have been built outside. In keeping with the idea of making this barn as efficient as possible and also a pleasant workshop for the men, a carrier track has been installed over all the aisles. In the center aisle feed carriers can be run directly from the feed room or silos and stopped in front of each stall. Similarly litter carriers installed on a track which runs in back of each row of stalls enable the hired man to carry away the litter without breaking his back over a wheelbarrow.

Another important feature of modern barn equipment is the drinking cup placed in front of each stall. Here the cow can drink at will. As we all know plenty of good clean water is needed to produce milk. The more a cow drinks the better the chances are for increased production. Moreover it eliminates the driving of the herd twice a day to the water trough. In the cold winter days this trough is often covered with a thick layer of ice and the water is too cold for the cow to drink.

Good buildings and modern equipment work two ways. They make for contented cows, which means increased milk production. And just as important in these days of acute shortage in farm help, they are largely responsible for satisfied help, because they eliminate many of the old tasks that were absolutely unnecessary, make all of the work easier, and enable the men to finish their tasks in time to spend an hour or two fishing or swimming. In the warm sultry days this hour of rest and recreation is worth a whole lot.

Only when farmers throughout the country adopt this line of progress and build comfortable, clean, and efficient buildings will they find relief from the present conditions which threaten to tie up the country's food supply. In building dairy barns of the type shown here and installing modern equipment and using machinery the farmer is not only benefiting his hired help but he is insuring prosperity for himself in greater production.

### The First Photograph.

Eighty-one years have elapsed since the first photographic portrait of a living person was taken.

This historic daguerreotype picture—still in existence in America—was of a Miss Dorothy Draper, daughter of Professor Draper of New York. The process was then so slow that the sitter's face was covered with white powder, the exposure being about 30 minutes, and in bright sunshine!

One of the greatest photographic booms was in 1857, when a French duke had his portrait placed on his visiting cards in place of his name. Disderi, the Parisian court photographer who made the pictures, saw money in the idea, and very soon it became the correct thing for every person to present his friends with his "carte-de-visite."

### Robinson Crusoe's Island.

Tobago's failure to obtain greater recognition of its importance as the "only authentic Robinson Crusoe island" is doubtless due to the fact that it is a retiring little island, concerned chiefly with its plantations and trade. Leaving Crusoe out altogether, Tobago has had an eventful history from the time it was discovered by Christopher Columbus, on his third voyage, until England took it from France in 1803 and started to turn it into a profitable colony. Its present estate after a century of English rule is less that of a desert island than of a partly wooded, partly cultivated and built up isle of the tropics.

### TELL OF PREHISTORIC RACE

**Interesting Aztec Relics Displayed in the American Museum of Natural History, New York.**

Temporarily displayed in the west corridor of the American Museum of Natural History, on the first floor, can be seen some interesting relics of a lost race—the prehistoric people who built and lived in the great community dwelling, now in ruins, near Aztec, New Mexico, which Earl H. Morris has for the last three years been exploring and restoring for the American museum. Mr. Morris has gathered a great deal of material which will in time be placed on permanent exhibition. But the six shelves in the corridor give an idea of the nature of the objects which have been found and of the customs to which they testify.

Here, outlasting their wearers by centuries, are sandals woven of yucca leaf, yucca fiber and cotton, and here the very pattern boards over which the sandals were made. Here, practically untouched by time, are ornaments of shell cut into discs, and beads of turquoise and of shell. There are arrow points of jasper, bone awls and needles and fragments of painted wood—ceremonial boards, doubtless.

The basketry is of two types—coiled and twilled—some of it in an excellent state of preservation. Then there are cylindrical netted discs padded with corn husks. These are a puzzle to the museum's investigators. Some one advanced the theory that they might have been used as snowshoes, but the small size and unsuitable shape of some of the specimens seem to refute that supposition.—Brooklyn Eagle.

### Seclusion to Be Favored.

"We will never have the saloon again," remarked the temperate citizen.

"No," rejoined Uncle Bill Bottletop. "And it's a good thing. With nothing but wood alcohol available, there should be as little encouragement as possible for the man who is always wanting to line up a crowd and stand treat."


**Back Lame and Achy?**

Housework is too hard for a woman who is half sick, nervous and always tired. But it keeps piling up, and gives weak kidneys no time to recover. If your back is lame and achy and your kidneys irregular; if you have "blue spells," sick headaches, nervousness, dizziness and rheumatic pains, use *Doan's Kidney Pills*. They have done wonders for thousands of worn out women.

**A Maryland Case**



Mrs. Charles Bell, 428 S. Parrish St., Baltimore, Md., says: "My back was in an awful condition and after I did my washing or ironing my head ached so I had to sit down until relieved. I was so run down and played out I hardly had strength enough to be around. I had dizzy spells. My kidneys were weak. Doan's Kidney Pills were recommended and two boxes cured me."

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**C. A. HARRISON**
**310 N. Third St., Harrisburg, Pa.**
Canadian Government Agent.


### Up-to-Date Interpretation.

"What did Poe's Raven mean by saying 'Nevermore?'"

"I don't know, but I know what he would mean if he were sitting on a bust now and realized he could never again go on one."


Wright's Indian Vegetable Pills are simply a good old-fashioned medicine for regulating the stomach, the liver and bowels. Get a box and try them.—Adv.


### Often Heard at This Season.

"Drat them pesky hens."

This is a common or garden expression.

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