

OF INTEREST TO FARMERS

NECRO, WORMS AND CHOLERA

It costs quite a little money to bring a few litters of pigs to weaning age. If at this period of development we carelessly subject these pigs to dangerous hazards it would be like telling a bank robber the combination of the safe. On most farms suckling pigs cannot be brought safely to weaning age without proper safeguards to prevent later damage by certain diseases and internal parasites. If our pigs are clean and healthy at weaning age we have a valuable advantage of the enemy but not one which is entirely immune to disastrous attacks. Of all the enemies that may cause serious losses among weaning pigs we mention necro, internal parasites, and hog cholera. Any one of these, if permitted to gain a substantial foothold, will put red ink in the bookkeeping of our swine enterprise. They can all be prevented provided we have clean, healthy pigs at weaning age. The prevention of necro and internal parasites is very simple. To cause necro it is necessary that the organisms which cause the disease and the pigs come in contact with one another. The same is true of internal parasites—the eggs which cause worms must be taken into the pigs' bodies through the mouth. Prevention, therefore, consists in keeping the pigs away from the organisms of disease and the eggs of parasites. Effective prevention will not result if the pigs are already harboring necro organisms and worm eggs when they reach the weaning age. The thing to do at weaning time is to get pigs out on clean pastures and away from the hog yards where millions of bacteria and worm eggs are waiting for pigs to take them into their digestive systems. Keep pigs out on clean pastures until they are at least four months of age. Then, if more convenient, they may go back to the old, infected hog yards with little danger of loss. There is an added advantage in putting young growing pigs on good pasture. Succulent pasture grass with its proteins of excellent quality, with its vitamins, stimulates growth at a time when growth impulse is greatest in young pigs. Less of high protein is needed when pigs have good grazing. Because of this, it pays to look ahead each year to providing grass of good quality for pigs.

Some farmers expect too much of grass. Young growing pigs will not gain satisfactorily on grass alone. Feeding trials show that such pigs must be made to gain not less than a half pound per head daily if they are to make economical use of their feed. They should be made to do much better than this. The control of hog cholera requires a different treatment. It is possible that getting pigs out on clean pastures may tend to prevent outbreaks in the herd but even so one cannot take the risk particularly in communities or on farms where hog cholera occurred last year. If one wants to safeguard his investment and be relieved of worry from possible loss by hog cholera, he should have his pigs vaccinated—immuned—with serum and virus at the weaning age. An advantage from keeping pigs clean and healthy not fully appraised by many is the fact that such pigs respond almost perfectly to serum and virus treatment, whereas unhealthy pigs offer some speculation as to the outcome of such treatment. Veterinarians are coming to recognize that proper condition is a valuable aid in the successful immunizing of pigs. If pigs are protected from necro, worms, and hog cholera, and if they are fed well balanced rations, there is not much speculation in their use of feed. They will, as a general rule, go on the scales at six to seven months of age weighing around 200 pounds.

TRADEMARKED PULLETS

One of the biggest needs of the poultry industry today is for pullets bred and grown so as to qualify for the trademark Triple-V—vim, vigor and vitality. Those poultrymen who can produce pullets stamped with vim, vigor and vitality need have no concern about their success in the poultry business, high prices or low. If you have bought the right kind of baby chicks—chicks from healthy, vigorous, well-bred birds having the ability to lay large numbers of large eggs—you have already gone half way in qualifying your pullets for the V V V trademark—but only half way. The rest of the way consists of the right method of handling the pullets. First of all, the range. This should be exclusively for the pullets; a range not used by chickens of any age during the last two years; a range that has not had droppings or litter from laying or brooder house scattered on it for two or three years. This necessitates three entirely separate and exclusive range areas for the growing pullets. The size of range will depend upon the number of pullets but it should be large enough to permit moving the colony houses or range shelters 100 to 30 feet each month, and to move the feeding and drinking equipment every few days. Clover, alfalfa and bluegrass are usually preferable for range, although most any kind of well-drained ground which is free from poultry contamination can be used. While ponds, springs, or running streams may often serve as a convenient source of water, they are objectionable because of their liability to contamination. Corn fields or stubble fields often make excellent summer ranges for the pullets unless such fields have been fertilized by poultry manure or litter from brooder and poultry house during the last two or three years. In that case they would be unsafe to use. The pastures used by other livestock can be used to good advantage. Shade is essential, if there are no trees or shrubbery, artificial shade should be provided. This may be accomplished without much trouble or ex-

ABOUT ALFALFA

You can buy a field of alfalfa if you are willing to pay the price in providing the essentials for its growth, and on most soils you can provide these essentials if you seriously set about it and follow implicitly a few essential steps. But at once we hear the old refrain, "I can't." This may be true but we doubt it. "I can't" and "It won't grow here" have been said in every section until a few adventuresome souls try it and succeed. Even if it succeeds some still say "I can't," and it is largely because they are not willing to pay the price of careful following directions. All writ-

ter; a simple framework can be made and covered with burlap sacks. One or two sides can be covered to protect against prevailing winds. The roof part should be A-shaped and rather high pitched with a revolving pole at top to prevent the pullets from roosting. Such a structure may be made of the size desired and, being light in weight, it can be easily moved. Move the feeding and drinking equipment each week or often so as to prevent the dangerous concentration of contamination which is so liable to take place around the equipment. The equipment need only be moved 10 or 15 feet each time; or it may be moved farther and often, according to the size of the range. The pullets will follow the feed and water so that they can be finally ranged 100 to 500 yards from the roosting quarters during the day and yet return to roost at night. If suitable trees are within the range, pullets of the lighter breeds will usually take to roosting in the trees instead of returning to roosting quarters. This is to be encouraged, for pullets usually thrive in trees, there is little danger of overcrowding, and pullets in trees are less subject to theft. Ranging pullets some distance from the colony houses or range shelters serves to protect the range by distributing the wear and the contamination over a wide area and thus avoids killing the gross or other vegetation near by. This plan also prevents the dangerous concentration of disease and parasitic contamination which is so often associated with the barren ground around the houses or shelters. Any wastage of mash or leakage of water must be carefully avoided by use of suitable feeding and drinking equipment. If feed gets on ground nearby the feeders, or if the soil around drinking equipment becomes moistened, the pullets will eat the soil. This soil generally carries the greatest amount of contamination since it is here that a large proportion of the droppings accumulate. A good means of prevention is to place the feeding and drinking equipment on frames made of 1x4-inch boards set edgewise and covered with 1/2-inch mesh hardware cloth. When it is not practicable to move feeding and drinking equipment, much the same object can be accomplished by placing the equipment on coarse cinders or slag 6 inches deep. When the pullets are to be transferred from brooder to range quarters, select only a few of the largest pullets at first—say 25—for a 10x12 range shelter. After a few days or a week, more can be safely added since the first pullets will have had a chance to become accustomed to the new quarters and should all be roosting. In this way the first ones set an example for the others. When all the pullets are transferred at one time serious difficulties often follow. If the weather is cool the ends and sides of the range shelter should be covered with burlap to keep the pullets comfortable, especially for a while after they have just been transferred. Never let older birds mix with the pullets. This may undo the results if all preceding efforts and render ineffective all that can be done afterwards. Make sure the roosting quarters are free from lice and mites. Watch for dead pullets or other carcasses to which the pullets might have access. Many losses have resulted from this cause. Move pullets to laying house when they reach 10 to 15 per cent egg production. If the pullets are to be vaccinated for chicken pox, it should be done four to six weeks before the pullets are to be transferred to laying house so they will have recovered from the ill effects of the treatment while on range. Treatment for worms might well take place before the pullets start laying. For pullets on range it means that the best method is to feed fresh mash each evening.

ELECTROCUTTING FLIES. While the use of electricity for killing flies is not an entirely new idea, it now seems to be receiving increased attention from dairymen. Not only are some of the dairy farmers who have electricity available taking advantage of it but milk plants, creameries and ice-cream factories are being equipped. We have seen two plans in use, says a dairy expert. One is the electrified screens at certain windows; the other is a trap. Specially made screens or traps can be purchased cheaply and are easily installed. All the windows do not have to have the screens, but the number of screens and their location should be sufficient to be effective at all times regardless of the direction of the sun or wind. The trap can be placed in any convenient location. Near the ceiling is preferable. It must be at a point where the dead flies that accumulate under it are out of the way and can be handily disposed of. A transformer to reduce the voltage is used. The current is sufficient to kill the flies but there is said to be no danger to humans, livestock, poultry, dogs and cats. The cost of the current for these installations is very low. During winter seasons the equipment, including the small amount of necessary wiring, can be removed and stored until required the next summer. This use of electric current to combat the fly nuisance gives considerable promise. It attacks the flies outside as well as inside the building.

AND PLENTY WATER Young growing chicks should be provided with shade in the summer.

WHO KNOWS? Why is it that Swiss cheese has all the holes when it is Lamberger that needs the ventilation? ers on dairy feeding have shown the great economy of alfalfa on the dairy farm and farmers having alfalfa all testify as to how it reduces cost of milk production. The time, effort and money spent in establishing a stand, will bring a larger return than almost any other investment made on the dairy farm. Supply the essentials for success with alfalfa. Unless all the rods are against you, success will follow and your cows will smile and bellow with better profit. If you fall the first time, find out why and try again. It is worth it. Don't accept a makeshift.

BRIDGE LONG PART OF "LONDON TOWN"

Structure Across Thames in Use for More Than a Century.

That bridge across the Thames at London which is borne upon five granite arches and known as London bridge has completed 100 years of history. But its name is much older than a century. At or near the point at which this modern structure spans the river there has been a crossing from time immemorial. The Saxons had a bridge there (or successive bridges) made of wood and barred by a fortified gate—a gate to the city. It was swept away by a storm.

Then, in 1186, only a little more than a century after the Conqueror had come, was commenced that stone structure which served river-crossing Londoners for nearly 650 years. Until the middle of the Eighteenth century it alone drew together the two banks of the Thames at London.

In its picturesqueness it vies with the Rialto of Venice and the Ponte Vecchio of Florence, which, in some part, it resembled. On each side of its roadway it had shops and stately houses, some with gardens on their roofs. There was a Twelfth-century chapel on a wider pier at about the middle.

The structure, however, was suited better to the ideals and customs of the Middle ages than to modern notions about bridges. Within the 900 feet of the river's width it had 18 solid stone piers varying from 25 to 34 feet in thickness, so that, in effect, it sent the waters of the Thames through a greatly narrowed channel. The piers supported buildings four stories in height, which in turn narrowed the passage for vehicles and pedestrians, and darkened it to almost tunnel blackness. The buildings were cleared away in the middle of the Eighteenth century, but the obstruction to navigation still remained, and, in 1823, after bitter debate, it was decreed that a

new bridge must be built. Two years later the duke of York laid the foundation stone; and then, after six years more, the new structure, only a few yards higher up the river, was opened with flags, music, oratory and parades. In the following year old London bridge went the way of the centuries.

But London bridge is still London bridge. It still divides the Thames into "above" and "below" and, though there are other bridges now—Tower and Victoria, Waterloo and Westminster and the rest—it still carries Londoners from one bank to the other, just as its predecessors carried Saxon and conqueror, knight and cleric. And though the pace is swifter now, what with motor cars speeding along the deck widened in the beginning of the motor age, the bridge has not broken with Britain's past. Its lamp posts are cast of the cannon Britons captured in the War of the Peninsula.

Ceiling of the World

"What is the ceiling today?" This is a common question around airports, because a flying "ceiling" varies with the atmospheric density. To determine accurately the fluctuating ceiling clouds, haze and fog around airports and weather bureaus, an experiment is being conducted in Cleveland with a light beam that is virtually a tape measure.

To determine the ceiling height with this new electric tape measure, it is only necessary to focus the light beam from a light projector upon the clouds and to sight, through a special gauging instrument, the light spot thus thrown on the clouds. The optical system employed in the projector produces a phenomenon beam intensity of 1,840,000 candlepower.

Just Girls

Fannie—Joe says he is very modest. But if he was very modest he wouldn't say so.

Nannie—But how would anybody know it if he didn't brag about it?

The man who takes an umbrella to church and leaves it out in the vestibule has got true friends.



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Green Apple Pie

Above All Praise

Green apple pie is not in the ordinary sense of the word pie at all. Oh, to be sure the recipe books will tell you in that humdrum way they have of doing how to make it and from a mere reading of the directions the casual observer would never suspect that it is different from any other kind of pie.

But green apple pie is—well, there is really no word to define it, but it might be described as a sort of super-pie which is at once delicious, luscious, palatable, savory, exquisite, delightful. It is charming, enchanting, rapturous, fulsome, delectable. Our general idea is to convey the impression that it is good. And we believe that that is a message worth getting over. If it were in our hands to settle the problems of the world we would delay them until spring and then call all the litigants together for a big serving of green apple pie.

Then the world would see how the problems of disarmament would fall away and the economic situation would be solved and the birth control controversy would be waved aside and all the ills and troubles of this old earth would disappear. Apples changed the course of humanity once and in our humble opinion can do it again.—Ohio State Journal.

Best feature of rearing a home garden is that one doesn't have to eat "head" lettuce.

Return of the Native

The people who are objecting to the verb "hike" as an ugly Americanism which has no business on this side of the Atlantic are trying to prevent the return of a real English word to its native shores.

"Hike" was used for centuries in the English provinces to express very much its present meaning, and it was English emigrants to America who introduced it there.

Many of our "new" words are, like "hike," much older than we think. Admiral Mark Kerr recently recalled the interesting fact that the word "gadget" was used in the navy when he entered the service in 1877.

Fish Story

Jimmie's sole acquaintance with fish was as a commodity in a market so when his daddy took him recently to the creek to watch some fish in their native environment Jimmie, nearly four, experienced a new sensation.

"They were taking a bath," he explained to a group of who questioned him about the trip.

Valuable Discipline

"Josh says he's going to take up aviation."

"If he does," replied Farmer Corn-tassel, "he'll learn to be a heap more careful about keepin' machinery in repair than he ever was while workin' around the farm."

Every woman's eyes grow bright on being asked to look at the bride's trousseau.

Here Are the Reasons Firestone CAN GIVE YOU EXTRA VALUES



ONLY by comparing manufacturing, construction, and distribution can you determine what is behind the price tag on the tires you are asked to buy. Price alone is never an index to value unless you know the reputation and ability of the manufacturer and what advantages he has in purchasing of raw materials, manufacturing efficiency, and distributing economies. These are the factors that determine tire value.

Read the facts at the right—then go to the Firestone Service Dealer in your community and make your own comparisons with cross sections of Firestone Tires and special brand mail order tires. See the Extra Values you get by equipping your car with Firestone Tires.

Manufacturing Efficiency

Firestone control every step in the manufacture of their products—own their own rubber preparation factory in Singapore—their own cotton fabric mills—and their own huge tire factories—the most efficient in the world. With these great advantages Firestone save millions of dollars annually, which are passed on to car owners in Extra Values.

Mail Order houses have their tires built as a part of a miscellaneous assortment of production by some manufacturer who is unknown to the public. Mail Order houses are dependent upon others for their tires.

Distributing Economy

Firestone have the most efficient and economical distributing system through Service Dealers and Service Stores. Firestone know tires must carry with them the necessary service for the economy, safety, and satisfaction of car owners. Special brand mail order tires are usually made just to sell, with limited or no facilities for servicing the car owner after the sale.

Quality and Construction

Firestone Gives You	4.50-21 Tires		6.00-19 H. D.	
	Firestone Oldfield Type	*A Special Brand Mail Order Tire	Firestone Oldfield Type	*A Special Brand Mail Order Tire
More Weight, pounds . . .	17.10	17.10	29.06	28.45
More Thickness, inches . .	.635	.596	.679	.677
More Non-Skid Depth, inches	.266	.258	.344	.305
More Plys Under Tread . . .	6	5	6	7
Same Width, inches	4.75	4.75	6.02	6.02
Same Price	\$5.69	\$5.69	\$11.45	\$11.45

Lowest Prices

Size	Firestone Oldfield Type Cash Price Each	*Special Brand Mail Order Tire	Firestone Oldfield Type Cash Price Per Pair	Size	Firestone Oldfield Type Cash Price Each	*Special Brand Mail Order Tire	Firestone Oldfield Type Cash Price Per Pair
4.40-21	\$4.98	\$4.98	\$9.96	6.00-20 H. D.	\$11.47	\$11.47	\$22.94
4.50-20	5.00	5.00	10.00	TRUCK AND BUS TIRES			
4.50-21	5.09	5.09	11.10	30x5 H. D.	\$17.95	\$17.95	\$34.90
4.75-19	6.05	6.05	12.90	32x6 H. D.	29.75	29.75	57.90
4.75-20	6.75	6.75	13.44	36x6 H. D.	38.95	38.95	77.90
5.00-19	6.98	6.98	13.96	6.00-20 H. D.	15.25	15.25	29.90
5.00-20	7.10	7.10	13.90	All Other Sizes Proportionately Low			

* A "Special Brand" tire is made by a manufacturer for distributors such as mail order houses, oil companies, and others, under a name that does not identify the tire manufacturer to the public, usually because he builds his "best quality" tires under his own name. Firestone puts his name on every tire he makes.

Double Guarantee—Every tire manufactured by Firestone bears the name "FIRESTONE" and carries Firestone's unlimited guarantee and that of our 25,000 Service Dealers and Service Stores. You are doubly protected.

FIRESTONE SERVICE DEALERS & SERVICE STORES SAVE YOU MONEY AND SERVE YOU BETTER