TREATING HOGS FOR CHOLERA

Summary of Results Obtained From Use of Serum Are Interesting as Well as Valuable.

(By GEORGE H. GLOVER, Colorado Experiment Station.)

In a recent report of the chief of the bureau of animal industry, a summary of the results obtained from the use of serum are interesting and valuable as indicating the usefulness of serum in infected herds.

Of 16,152 hogs, where 70 per cent were sick with cholera and the serum was given to all of them, only 24.3 per cent died. Without the serum a loss of 75 per cent might have been expected. The value of the serum as a cure is apparent. In 11,776 hogs that were well when given the serum but kept in herds with sick hogs, there was a loss of 2.9 per cent, while in a total of 13,578 hogs that were healthy. then given the serum, and later exposed to cholera, there was a loss of only a little over one-half of one per

In the record kept by the Colorado Agriculture college, we find that in the San Luis valley, where hogs were not given the serum until the disease appeared, there was a loss of about

INDIVIDUAL HOUSE FOR HOGS

Among Other Advantages They Are Light, Easily Moved to Fresh Soll -Easy to Construct.

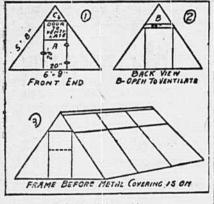
The individual hog house for farrowing, I think, has many advantages over the combination sort, writes C. S. Bratt of Furnas county, Nebraska, in Independent Farmer.

They are light, easily moved from one lot to another, or to fresh soil in the same lot, which is a good preventive of disease.

The animal heat from the sow has a greater influence on the temperature in cold weather than in the ordinary combination hog house.

I have used individual houses seven feet long, seven feet wide of lumber. but this year have added some made of galvanized sheet iron nailed on a wooden frame. These are six feet eight inches square at the base. They are warm and dry. I do not consider them as good for warm weather owing to the sun's heat having so much in-

Any farmer can make these sheet fron houses, as they are quite simple



Individual Hog House.

in construction. The material cost me \$7.50 each. For the frame I selected good 2 by 4 lumber and ripped them in two making 2 by 2. I planned my frame so as to nail all seams of the sheeting over the wood. The galvanized iron I used is 26 gauge, 28 by 96 inches.

Use the large-headed galvanized roofing nails.

SOLID TEETH ARE ESSENTIAL

Lock at Ewe's Mouth Before Buying-Full-Mouthed Animal Can Be Used for Breeding.

In buying ewes be sure they stand well on their feet and have good straight backs and good mouths. "Broken-mouthed" ewes, that is, ewes with broken teeth or badly worn down should not be bought.

A sheep has one pair permanent incisor teeth when it is a year old, two pairs or full mouth at three years old. A full-mouthed ewe can be used for breeding even though she is as much as five years old.

SWINE NOTES.

Use enough litter to keep the pens

When scouring give the pigs a good dose of common baking soda.

Keep the pens, troughs and barrels clean. Don't overlook that. It is of importance that the brood

sow be kept in a vigorous thrifty condition, not too fat but full of vitality. Feed the brood sow protein foods as

much as possible and avoid feeds rich in fat-forming elements.

The first requisite in the hog business is a good hog house well ventilated, set with ends north and south.

Brood Mares.

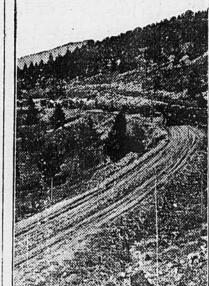
While the brood mares should not be jammed about and abused, they do require gentle exercise, light driving and moderate work to keep their digestion, respiration and circulation in good, healthy, normal condition. Idleness and inactivity are not conducive to the production of strong, vigorous offspring.

FIGURE COST OF BAD ROADS

Hauling Produce More Expensive Here Than in European Countries -Total Haulage Expense.

"American farmers have begun to figure the matter of roads a little differently than in former years," says President Claude S. Briggs of the Briggs-Detroiter company of Detroit. "When the good-roads movement was in its infancy they used to ask themselves 'How much will good roads cost me?' Thanks to the intelligent propaganda of the daily and farm papers as well as other agencies farmers are now asking themselves 'How much are bad roads costing me?"

'According to government experts the cost of hauling a ton of farm produce a mile varies from seventeen cents in localities where fairly hard gravel roads exist to thirty-five cents a ton in parts of the country where the roads are in poor condition. On the other hand, in those European countries where hard roads prevail the cost is as low as nine cents a ton a mile. The department of agriculture has estimated that the total haul-



Climbing the Continental Divide.

age expense to American farmers for a year is approximately \$500,000,000. And every dollar of this sum comes from the farmer's pocket, for he is the one great producer who cannot add the haulage expense to his wares, for the prices he gets are on a delivered basis.

"I believe that if every farmer would take pencil and paper and figure the amount in tons of the produce and stock he markets in a year, multiply it by the number of miles he must haul it to market, multiply the total by 25, which is about the average hauling cost a ton a mile, and then consider that he could save nearly half of this amount every year if he had concrete or other hard roads all the way to his market, he would become an earnest good-roads

"And this actual dollars and cents saving doesn't take into consideration the many advantages of good roads in bringing neighbors closer together. in making it easier and pleasanter to get to church, school, entertainments,

"With wider interest in better roads must come a more efficient system of road building and maintenance. This is work for experienced and competent highway engineers, just as much as building a railroad is the work of highly-trained specialists. It is no plaything for politicians."

SLOW IN TAKING ADVANTAGE

Certain Loss Due to Bad Roads Made Apparent When Sledding Is Good During Winter.

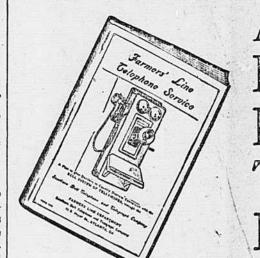
The heavy snows and excellent sledding serve to emphasize what might be accomplished if good roads prevailed all over the country. Farmers can take their bobs and put on twice as heavy loads as is possible at other times. It is not argued, of course, that with roads as smooth as a dance hall floor the teams could pull on wheeled vehicles the loads they do now on bobs. But there is a certain loss due to bad roads that is made all the more apparent by the ease with which transportation is made when the sledding is good, says South Bend Tribune. And to think that for all these years nature has been showing us the advantage of good roads and we have been so slow to take the hint! It should make us ashamed of our blindness and stupidity.

Solve Social Ilis. Elbert Hubbard says that "Good roads are the most needed thing in the world. Good roads and quick, safe and cheap transportation are going to solve most of our social ills."

Many Benefits Derived. Good roads will decrease ignorance, poverty, discouragement, immorality, profanity, back taxes, sheriff's sales and grouches.

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