

Feeding and Handling Livestock to Prevent Shrinkage and Loss



Fig. 1.—Stockyard alley any warm “hog” day. “Deads” and “crips” kill profits.

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THE OHIO STATE UNIVERSITY, COOPERATING WITH THE UNITED STATES DEPARTMENT OF AGRICULTURE

AGRICULTURAL EXTENSION SERVICE—H. C. RAMSOWER, Director, Columbus, Ohio
FREE—Cooperative Agricultural Extension Work—Acts of May 8 and June 30, 1914

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Livestock losses paid by railroads to shippers total a tremendous amount. It would require 10 trains, each composed of 60 cars, and each car containing 1000 bushels of corn worth 60 cents per bushel, to represent the claims paid by the railroads in 1924 for livestock losses in transit. Freight claims represent tangible losses, such as dead or crippled animals, and do not cover the hidden losses such as bruises. While many of these losses are paid directly by the railroads they are paid indirectly by the shipper. Freight rates are made up anticipating these claims as a part of the transportation cost. If the railroads could anticipate fewer claims to be paid, they in turn would be willing to credit this saving to the producer.

Shrinkage in weight between feed lot and market, and losses due to death and crippling, are due to several factors. Some of these factors may be controlled by the producer so as to greatly reduce or even eliminate losses.

It is true that other agencies must join hands with the producer to help reduce needless loss and we are glad to state that all agencies interested in handling livestock from the feed lot to the cooler are joining hands through the medium of the Livestock Loss Prevention Association of Ohio. This bulletin is intended to offer suggestions to the producer so that he may deliver his consignment to the railroad or market in good physical condition. He will then be interested in advising other agencies that they must do their part as thoroughly as he is performing his.

Hogs Losses Greatest.—Livestock shipping losses in the corn belt are much greater on hogs than among cattle, calves, or sheep. Shipping losses in hogs are primarily due, first, to death from suffocation and, second, to cripple losses caused in most cases by using rations deficient in minerals.

Death losses in hogs are much more common in hog weather than during the winter months.

Free Lung Action Essential to Hogs During Hot Weather.—Hogs cannot cool their bodies by sweating. They must rely upon the blood stream having its excess heat and moisture removed when passing through the lungs. This makes apparent the im-

portance of large lung capacity in hogs. This capacity, if present, must not be hindered by pressure from the diaphragm due to a distended alimentary tract.

In order for a hog to have lung capacity at marketing time he must be of the conformation that is indicative of a robust constitution. Depth of chest and spring of rib indicate a strong constitution in any animal. These points are associated with a good big middle, not necessarily paunchy, which is indicative of an "easy" feeder.

A pig that has plenty of chest capacity should be so managed that he will develop his lungs. Exercise will do this; and feeding



Fig. 2.—Rape is an excellent hog pasture and a desirable supplement to alfalfa and clover, particularly during July and August.

some distance from the sleeping quarters in the winter time or using pasture crops in the summer time will provide the necessary exercise. Hogs confined to a small pen do not develop large lungs; a large lung capacity is not needed while the animals are in the pens, but is greatly needed when they start to market during the summer time. From your own experience you know the muscles of the right arm are stronger, in a right-handed man, than those of the left arm. Work or exercise made the difference. The above mentioned type of hog and the manner of handling referred to will also make for more economical gains. It is, therefore, good business from a producer's point of view to follow these suggestions.

Light Shrink Increases Profits.—It is the weight of animals over the stockyard scales that counts rather than their weight at home. In many cases a heavy weight at home will mean a disappointing weight at market because of excessive shrinkage. Live-stock does not “ride” well if “stuffed.” Such animals will be scouring when they reach the market. A scouring animal does not have a normal appetite, so a light market “fill” is taken. The market weight both surprises and disappoints. It should do neither if you will just recall your first train or truck ride. You probably knew where you were going. The animals do not know

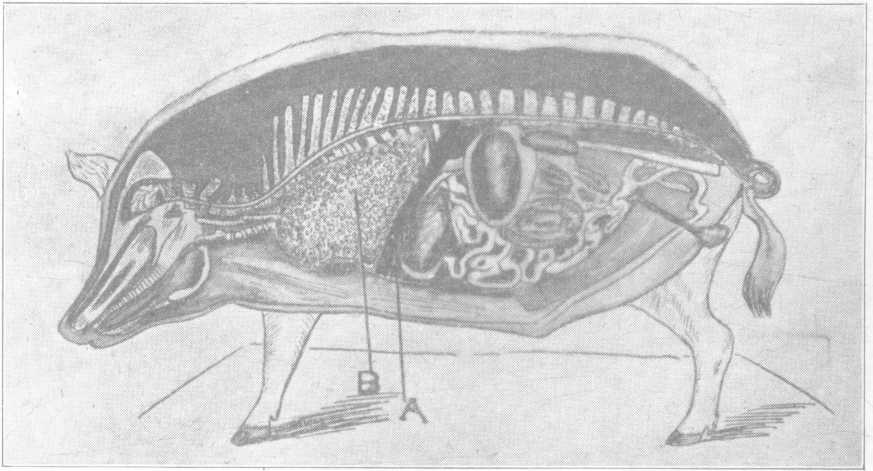


Fig. 3.—Illustration shows the position of the diaphragm *A* and size of lungs *B* when stomach and bowels are not distended with food or gas.

their destination, and being in strange quarters are excited and remain in a nervous condition.

Hogs should be given 75 per cent of a normal feed previous to shipping in cool weather. In hot weather the amount of feed given should be reduced to 25 per cent. Clean water should be supplied whenever possible. Cattle or sheep should be given all the non-leguminous roughage they want to consume. If they have been accustomed to a legume hay permit them to have half a feed of legume hay and make up the balance from timothy, oat straw, or stover, so as to avoid bloating enroute. Water as frequently as possible. Never salt animals expecting them to take a heavy fill.

The chances are that they will scour badly. If they do happen to fill heavily the buyer will notice it and bid accordingly. Try to handle the livestock so that it will look normal at market.

Be saving with your feed to livestock just previous to shipping from home. You will have more feed left in the bin and more weight of livestock over the stockyards scale.

Excessive "Fill" Tends to Suffocate a Hog.—The diaphragm is a flexible membrane which separates the chest and abdominal cavities. If the abdominal cavity is distended due to excessive "fill" or to bloat, the diaphragm is flexed forward against the lungs, making

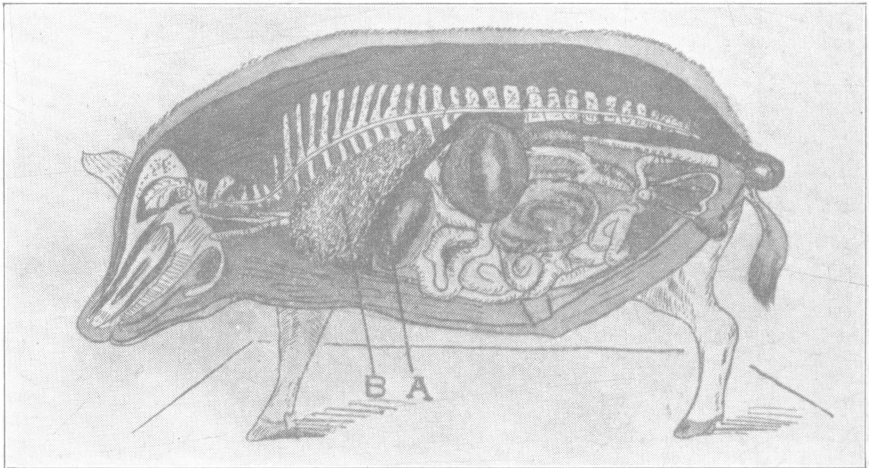


Fig. 4.—Showing the position of diaphragm *A* and size of lungs *B* when the stomach and bowels are full of food and distended with gas.

breathing, especially deep breathing, more difficult. If pressed forward too far, suffocation may follow. This is what usually happens when an animal dies from bloat. It also explains the cause of many deaths of livestock in freight cars (see Figs. 3 and 4).

Cripples Always Mean a Loss.—Many animals arrive at market crippled. They may have a broken leg or they may be "down behind." This latter condition is due to a fracture in the spinal column, usually in the region of the lumbar vertebrae. The fracture permits pressure upon the spinal cord, and paralysis of the rear quarters results.

These crippled animals sell at a marked discount. Nobody wants them unless it is at a price that looks attractive to them. This price looks like robbery to the owner when the returns are received. Most, not all, of these cripples can be traced to (1) a ration deficient in minerals, (2) rough handling prior to entry into car, (3) overloading a car, (4) mixing strange animals, thus inviting a fight, and (5) shipping cattle, hogs, calves, and lambs together.

Minerals Important in All Hog Rations.—It is important to supply sufficient minerals to livestock rations. Animals cannot make most economical gains in the feed lot when rations deficient in minerals are used. This has been proved experimentally by various experiment stations. The Ohio Agricultural Experiment Station has shown that hogs fed rations deficient in minerals develop bones that are spongy and easily broken, and the animals frequently suffer from posterior paralysis. Not all rations used by Ohio farmers are deficient in minerals, but many livestock rations should have minerals added for more economical gains in the feed lots, as well as decreasing losses of the livestock enroute to slaughter.

Experimental work has shown that the mineral content of rations fed to hogs is more often neglected than in the case of beef cattle or sheep. In fact, if legume hays make up the roughage portion of beef cattle and sheep rations, additional minerals have shown no noticeable effect. This is because of the high mineral content of legume hays.

Fattening hogs cannot use a legume hay in any appreciable amount. They will consume sufficient quantities of legumes in the form of fresh pasture to meet their mineral requirements, but feeding on such pastures unfortunately is limited by the weather man to about one-half the year. If tankage, skim milk, or some supplemental feed which contains much mineral matter is fed in addition to corn, little benefit is derived from feeding other minerals, and frequently no advantage.

Corn is our chief feed for hogs. It is a feed that contains relatively small amounts of minerals. We are safe in assuming that corn grown on soils of low mineral content does not contain as much mineral matter as corn grown on a mineral-rich soil. Commercial fertilizers and lime are being profitably added to many Ohio soils. As time goes on larger quantities will undoubtedly be added. If soils respond to the addition of these minerals by producing larger crops, it is reasonable to expect a higher mineral

content in the feeds grown on mineral-fertile soil. It is also reasonable to expect stronger bones in animals fed with feeds grown on soils rich in minerals.

The addition of minerals to livestock rations, especially hog rations, is not a fad that will disappear. On the contrary, the importance of minerals will increase. Hogs need more minerals than they can obtain from a strictly grain ration.

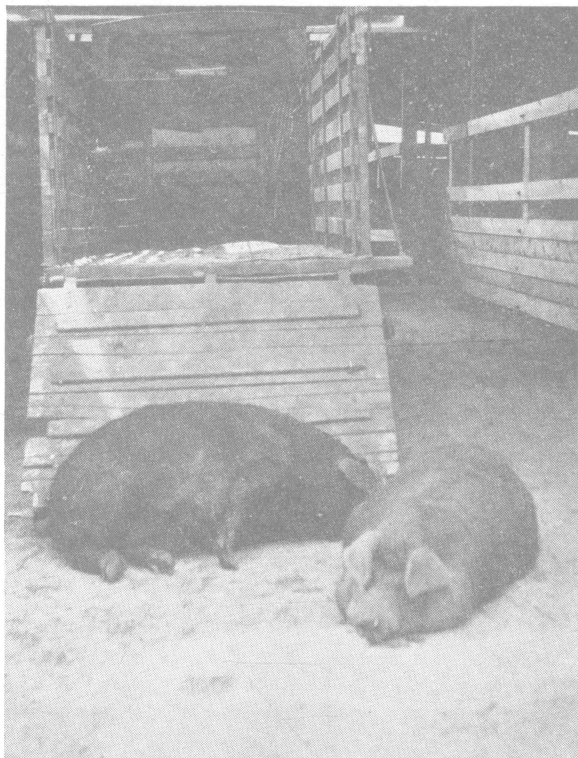


Fig. 5.—Intelligent feeding, careful handling, and proper shipping reduce the number of cripples.

Mineral Mixture for Hogs.—For hog rations a mineral mixture made up of 2 parts ground limestone, 2 parts acid phosphate, the same as used for fertilizer, and 1 part salt is easily obtained, is cheap, and as efficient, or practically so, as any that could be recommended. It may be fed from a self feeder or mixed with the grain feed. In either case the animal should consume 2 pounds of the mineral mixture for each 100 pounds of grain.

Summary.—Animals need, first of all, lung capacity, and then to be so handled that this capacity may be developed.

If the minerals are not sufficiently supplied by the use of supplemental feeds such as legume pasture, skim milk, or tankage, then the use of minerals is advisable and recommended.

Before starting livestock to market, give a light feed so that the lungs may function properly under their additional load.

The livestock producer should do his share to reduce losses in marketing livestock and thus help reduce a tremendous waste.