

Live Stock Losses *and* How to Reduce Them

Being the conclusions based on important conferences attended by representatives of producers, feeders, shippers, stockyard companies, commission men, railroads and meat packers, and held at Chicago under the direction of the National Livestock Exchange.

Issued By
THE COMMITTEE ON BRUISED LIVE STOCK
INSTITUTE OF AMERICAN MEAT PACKERS
22 West Monroe Street
CHICAGO, ILLINOIS

Foreword

THIS little booklet, if it accomplishes its mission, may mean a considerable saving to you. It embodies the recommendations for reducing livestock losses made by experts representing every factor in the livestock and meat industry.

It is a costly mistake to believe that a particular loss on live stock falls on a single branch of the industry. Injured animals or damaged carcasses mean wasted meat, and in any business the penalty for waste is shared by every participant in the industry.

A crippled or dead animal may seem to cause a loss to a single producer, a single shipper or a single railroad. A bruise, undetected until the animal purchased has been dressed, may appear to be the misfortune of an individual packer.

But wasted meat or misused meat lowers the value of the dressed carcass, and thereby indirectly lowers the value of livestock. The prices which can be paid for livestock are limited in the long run by the amount of money which can be obtained for meat. The total receipts from a bruised, crippled or mutilated animal are less than the receipts from a prime specimen. If the steer raised by one producer is mishandled, the loss falls not only on him but also on all other producers.

In the long run a loss which represents waste is the misfortune of every man in any phase of the livestock or meat business—and of the public.

For these reasons, the proposals outlined in the following pages merit your consideration and your active support.

R. W. CARTER,	J. MOOG,
M. D. HARDING,	R. S. SINCLAIR,
J. A. McNAUGHTON,	E. S. WATERBURY,
E. D. MERRITT,	EDWARD MORRIS, <i>Chairman.</i>

*Committee on Bruised Livestock,
Institute of American Meat Packers.*

LIVE STOCK LOSSES AND HOW TO REDUCE THEM

AVOIDABLE losses on live stock in this country aggregate thousands of dollars daily and millions of dollars yearly. They also cause a preventable reduction of the nation's food supply. A great part of these losses can be eliminated.

This booklet attempts to show first how live stock losses occur and secondly, how they may be reduced. It summarizes the facts disclosed and the steps taken at recent conferences called in Chicago by the National Live Stock Exchange.

The gravity of the situation is easily overlooked when one considers merely an individual case of loss. For example, the loss of one-half pound of meat because of a bruise in a single hog does not seem significant. Yet the direct loss on this account last year is estimated at \$3,508,880 and the loss of meat is calculated to be equivalent to 8,295 hogs, requiring for their feed 1,605,900 bushels of corn and for their shipment 575 cars. In these days of the high cost of living surely it is worth while to correct conditions of this sort. One animal dead on account of transit delays will not constrict the nation's meat supply. A single steer trampled in an overloaded car, a young porker suffocated by ammonia fumes from faulty bed-

ding, a crippled calf or a nail-gashed hog will not impoverish the packers or bankrupt the producers or raise materially the price of the consumer's meat, but all of these losses are multiplied over and over day by day and year by year.

Those who earn money by raising, feeding, shipping, selling or dressing meat animals clearly face the duty of ascertaining systematically the cause of such losses and of correcting conditions where possible.

Discussions at the Chicago conference revealed some of the principal sources of loss to be: bruises and injuries due to mistreatment, delays in shipment or transit, improper pens and chutes and faulty driving or loading, poor or injurious equipment, improper bedding, excessive loading, careless sprinkling or drenching, rough handling or suffocation in transit.

Many of the losses occurring from those causes are absolutely avoidable. Sometimes they occur through lack of care; at other times through lack of knowledge. This little booklet can furnish preventive information but it can not eliminate carelessness. That is the task of those who read—the task of using care and intelligence in the shipment and handling of meat animals.

Black and Blue Arithmetic

10,089,984 = Cattle slaughtered under Federal Inspection in 1919.

29% = Average percentage of bruised cattle reported by members of the Institute.

2,926,095 = Estimated number of bruised cattle among those slaughtered under Federal Inspection.

1.27 = Average number of pounds per head removed on account of bruises as reported by members of the Institute.

3,716,141 = Estimated number of pounds of meat removed on account of bruises to cattle slaughtered under Federal Inspection.

59 = Per capita consumption of beef in the United States.

$3,716,141 \div 59 = 62,985$ = Number of years the lost beef would supply one person at normal rate of consumption.

This would be a normal supply for 63,000 persons for 365 days. Is it worth saving?

And this is only one phase of losses on live stock losses, which, in part at least, are avoidable.

Bruises and Other Injuries Due to Mistreatment

The Institute of American Meat Packers recently asked its members to keep a record for one week showing the actual loss on account of bruised meat. The following table gives results which speak for themselves:

Hogs killed at 37 markets, during one week.....	229,606
Total loss of meat per hog.....	½ pound
Total loss meat 37 markets, during one week.....	114,803 pounds
Average live weight hogs killed at Chicago.....	238 pounds
Average live cost hogs killed at Chicago.....	\$15.00
Average dressed cost hogs killed at Chicago.....	\$20.00
Total loss account bruises.....	\$23,860.00
Loss of meat equivalent to.....	501 hogs
Loss of meat also equivalent to.....	5 cars
Corn required to raise lost hogs.....	11,930 bushels

The table below, which relates to the year 1919, gives a concise estimate of the direct loss on account of bruises occurring in a twelve-months period:

Hogs killed at 53 markets, 1919.....	30,512,000
Estimated loss meat per hog.....	½ pound
Total loss meat, 53 markets.....	15,256,000 pounds
Average live weight hogs killed at Chicago.....	190 pounds
Average live cost hogs killed at Chicago.....	\$17.85
Average dressed cost hogs killed at Chicago.....	\$23.00
Total loss account bruises.....	\$3,508,880.00
Loss of meat is equivalent to.....	80,295 hogs
Loss of meat also equivalent to.....	575 cars
Corn required to raise lost hogs.....	1,605,900 bushels

The figures given in the two tables above represent only the amount of money lost on account of bruised meat removed and sent the tank to be rendered into an inedible product. It does not include the vast additional loss on cuts from which the bruised meat has been removed and which have been reduced in grade as a consequence.

There are many causes of bruises, some of which cannot be eliminated. Animals fall down on sleet and ice, and sometimes even in warm weather. Some animals are kicked and others are injured in loading and unloading and in overcrowded cars. Bruises also are caused by heavy clubs, prod-poles bearing spikes, by kicks from the driver's foot and sometimes even by

I believe that if we had any way in which to follow up in a more detailed fashion the losses occasioned by bruises, instead of three million dollars the figures would be closer to twelve million dollars.

R. W. CARTER,
Technical Representative of the
Institute of American Meat Packers.

the prongs of pitchforks. Abuse and mistreatment may occur on the farm, at assembling points, on runways, in pens or elsewhere. When the animal is dressed, the evidence of abuse is disclosed and means waste of meat and loss of money all along the line.

On this subject, with special reference to unloading at destination, handling within the yards, and loading out the market stock, the conference adopted recommendations which may be summarized as follows:

That stock yard companies employ in so far as possible only experienced men, especially the ones in charge of the crews.

That stock yard companies should see that all equipment is in good condition.

That only flappers or other non-injurious driving instruments be used in loading and unloading stock.

That every precaution should be used in unloading crippled animals, that they be not further injured, and that the cripples be disposed of as promptly as possible after unloading. Sales to be made on basis of weight and price per pound.

That all exchanges institute a campaign of education on the subject of unnecessarily bruising live stock on the central markets.

That signs be placed in prominent places at all central markets calling attention to the employees that bruising animals means losses to some one, and that employees of stock yard companies, commission firms, traders, and packers bruising animals will be fined or docked for the first offense and on the second offense will be discharged and not permitted in the yards. Those exchanges not having drastic rules covering the humane handling of live stock should pass such rules immediately. Every member should consider it his personal duty to see such rules enforced.

That all exchanges demand that clubs in the handling of live stock be abolished and insist that a whip or canvas flapper be substituted, except that in the sorting of hogs a pole may be used.

That all stock yard companies, commission men and packers instruct their employees accordingly.

That the packers do not mix bulls, steers and cows for the purpose of driving to the packing houses.

The flapper mentioned in the recommendations is readily made by folding a piece of canvas, sewing it together and tacking it on a swivel handle. Its appearance is indicated in one of the illustrations on page 8. Note the result of its use.

We have this situation: An enormously increased value in the animal, and a material decrease in the value of the railroad service. . . . I am satisfied that the railroads are anxious to co-operate in every possible way.

*J. A. McNaughton,
Traffic Representative of
the Institute of American Meat Packers.*

What we have got to do however, if we are going to make a go of the agriculture of this country from this time on, is to co-operate in these things. We have got to get each other's views.

*J. R. HOWARD,
President, American Farm Bureau Federation.*

Delays in Shipment Or in Transit

Discussion at the conference brought out many assertions of delays in transit, but also a general conviction on the part of the conferees that the railroads are anxious to co-operate and to expedite service.

It was asserted that live stock loading stations have been neglected and that animals therein have been subject to mud under foot and to exposure during stormy weather. It was suggested that all loading or holding pens should be paved and kept reasonably clean, there should be a reasonable number of pens covered to protect the animals against extreme heat, cold and storms while awaiting transportation, and that there should be an ample supply of water and water troughs as well as proper facilities for feeding.

At present many animals are injured in trying to climb up or go down chutes that are too steep and chutes unprotected by cleats. An instance also was recited where animals had died from drinking stagnant water in which dipped live stock had lain down. Other defects which tend to create injury to live stock, with

consequent waste, include rotten posts, missing boards and gaping holes in the floor. When live stock is loaded or unloaded, the side gates of the running boards should be in place.

With reference to loading stations, pens and chutes the conference adopted the following recommendations:

We recommend that all carriers be requested to immediately make detailed investigation of all stock yards, reporting needed improvements and enlargements to their operating officers in charge of this department.

That adequate yards properly shedded be furnished at each loading station to accommodate its normal business. That where the volume of business equals 50 to 100 cars per year, at least two pens be properly paved. That where the volume of business justifies, all yards should be paved.

That an adequate supply of water and watering facilities be maintained where possible. That facilities for the drenching of hogs in warm weather be maintained where possible. That proper drainage facilities be installed in all yards.

That all loading chutes be constructed where possible on a level with car floors. That edges of loading platforms be not

Down in our country lots of men go along with stock just to make the trip. We find lawyers, doctors, hotel men and everybody else going with livestock.

They ride back in the caboose and they don't go near the cattle.

*Nat Parks,
Live Stock Agent,
S. P. Lines*

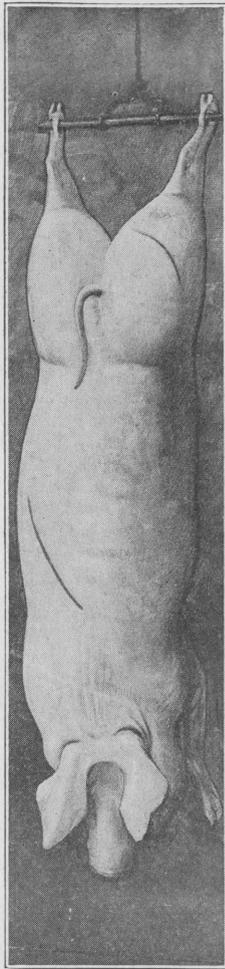
In my opinion, so far as a majority of the live stock shipping losses are concerned, it is a fifty-fifty affair--the shipping public being equally responsible with the railroads.

*WILLIAM A. BURNETT,
Traffic Manager, Nashville Live Stock Exchange.*

CAUSE AND EFFECT



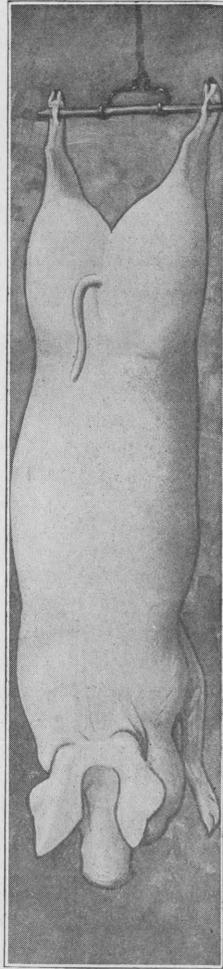
This whip, applied to the hog's back and sides gives the animal more speed—



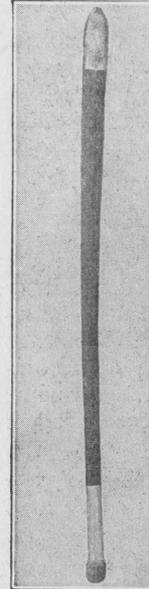
And less value, as this picture shows. Abuse means waste of meat and loss of money all along the line.



The flapjack, which is made of canvas, looks like a razor strap, and—



Hogs driven with flapjacks, unless they suffer injuries from other causes, look like this when dressed.



This club is a convenience to the driver—

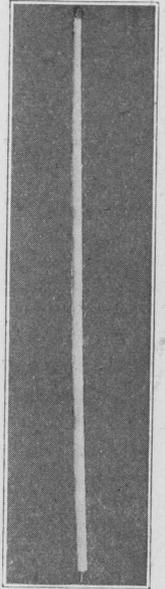
Stop Abusing Live Stock!

Every Blow Means A Bruise—
Bruises Mean Wasted Meat

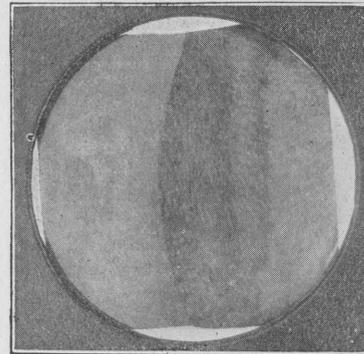
The accompanying illustrations show how losses result from the use of whips, clubs, and prod-poles. Losses also result from falls, kicks from the driver's foot, improper bedding, excessive loading, careless sprinkling or drenching, rough handling or suffocation in transit, and many other avoidable causes.

Meat which has been bruised is removed and sent to the tank to be rendered into an inedible product. Included in the resultant monetary loss is the reduction in grade of cuts from which the bruised meat has been removed.

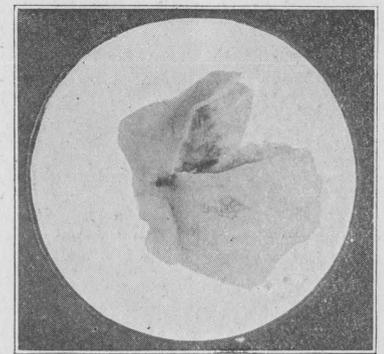
Throw away the club. Remember that every blow means a bruise and that bruises mean wasted meat.



The prod pole is rapidly becoming extinct—



But this is what it does to the meat.



For the reason shown here.

to exceed six feet from center of tracks at car floor level.

That at all stations handling 100 or more cars per year, two chutes be installed where possible. That at all stock yards a movable double deck chute be a portion of the equipment where permanent double deck chutes are not installed.

That all yards should be kept in a clean and sanitary condition.

That receiving pens with unloading

chutes for the purpose of unloading stock from wagons or trucks be installed at all yards.

That all possible publicity be given these recommendations and that live stock shippers be requested to advise their local organization, the traffic manager or the exchanges at the public markets, or the secretary of the National Live Stock Exchange where the local conditions are unsatisfactory.

Losses Due to Faulty Equipment

As was brought out at the conference, meat animals frequently are injured by nails, spikes and cleats protruding in cars or from partitions. Door fastenings sometimes are defective and it is no uncommon thing to see a door bulging out at the bottom with a steer's leg thrust through the opening. That means a loss for somebody and it would have been cheaper to make sure that the fastenings of the door were not defective.

It was felt by many of those at the conference that while the shipper should not be considered the car inspector, neither should he be willing to let his live stock go out in cars containing dangerous nails and protruding spikes. The conference recommended:

"In the event defective cars are furnished for live stock loading, shippers should report such defects to the local agents, and should refuse to load such cars unless defects are corrected."

Losses Due to Improper Bedding of Cars

Defective bedding and lack of bedding when needed often cause injuries or disease to live stock. Losses of this sort are avoidable.

Concerning bedding of cars the conference adopted the following recommendations reported by the committee designated to consider the subject:

It is the sense of the Committee that sand is the most suitable bedding, and we recommend it as the standard bedding, when obtainable. When sand is not obtainable, shippers should be allowed to select such bedding as they

desire. This Committee condemns the use of cinders, rock dust, coal slack or similar materials for bedding. Cars furnished for hog loading should not be bedded unless requested by shippers.

Obviously the conferees had in mind summer conditions in adopting the foregoing recommendations. In winter, lack of bedding is quite liable to cause frozen backs. Some shippers urge that in cold weather straw be used for bedding and that in extremely low temperature, the sides of the car be partly covered to prevent frost bite.

The following figures, compiled by the Bureau of Markets in 1916, show the relative extent to which different bedding materials were used:

Straw	bedding was used in	24.7	per cent of the shipments.
Sand	" " " "	20.8	" " " "
Sawdust	" " " "	18.7	" " " "
Hay	" " " "	8.6	" " " "
No	" " " "	7.8	" " " "
Cinders	" " " "	7.4	" " " "
Shavings	" " " "	6.9	" " " "
Dirt	" " " "	1.7	" " " "
Gravel	" " " "	1.6	" " " "
Coal	" " " "	0.7	" " " "
Pine straw	" " " "	0.6	" " " "
Manure	" " " "	0.4	" " " "
Fodder	" " " "	0.1	" " " "

Losses Due to Heavy Loading

Where rates were given in dollars per car the loading sometimes was very heavy, apparently on account of the producers' desire to save money on freight charges. Saving money on freight by overloading inevitably means losing money on live stock by overcrowding, "oversickening," "overbruising" and sometimes "overdying."

In this connection, W. C. Watson, Traffic Representative of the Institute, says: "Previous to July 30, 1916, we had a minimum on hogs of 22,000 pounds. Freight Rate Authority 15766 changed that minimum to 23,000 pounds. Taking our figures of January, 1920, against our shipments of December, 1919, the increased

Read this telegram and ask yourself: "How many of the deaths were caused by suffocation in transit or by rough handling somewhere along the line? How many of the crips had been struck on loin or back with a club?"

Kascity Apr 30 1920
Bruised Livestock Com. Inst Am Meat Pkrs.
22 W Monroe Chgo Ill

Ansg your letter April 26 fig. crips and dead removed from stockyards. Total this mkt fifteen months Crips 10501 Dead 12624 These figures include cattle sheep and hogs. We could get this information kinds separately but stockyards co advise it would take one man a week to compile figures.

105pm

mortality occasioned by our trying to load up to this minimum was 39/100 of one per cent. You can see what that amounts to in the number of hogs we shipped."

The committee appointed by the conference to make recommendations concerning safe carload minima made the following report, which was adopted by the conference:

Your Committee on Subject No. 5, "The Safe Loading Minimum of Each Species of Live Stock in a Standard 36-Foot Car," having in mind during our deliberations the purpose of this meeting, viz.: A reduction in shipping losses on live stock, begs leave to submit the following as their recommendations:

- Cattle, 22,000 pounds.
- Hogs, D. D., 22,000 pounds.
- Hogs, S. D., 16,000 pounds.
- Sheep, D. D., 18,000 pounds.
- Sheep, S. D., 12,000 pounds.
- Calves, D. D., 22,000 pounds.
- Calves, S. D., 14,000 pounds.
- Stock cattle, 20,000 pounds.
- Stock hogs, D. D., 20,000 pounds.
- Stock hogs, S. D., 14,000 pounds.

It is the recommendation of your Committee that the enforcement of a minimum on any species of live stock beyond which it is reasonably safe to load should be condemned.

We wish to protest against the claim by carriers of overloading when live stock arrives at destination at minimum weight or under in damaged condition.

Partitioning Mixed Cars

The conference sought to agree upon some system of installing partitions that would prevent injury to the car, absolutely prevent collapse of the partitions and permit prompt removal

at destination. The committee reported its opinion that further investigation and conference on this matter are necessary. A statement on this subject will be issued later.

Drenching or Sprinkling Enroute

Recommendations as to drenching or sprinkling en route adopted by the conference are as follows:

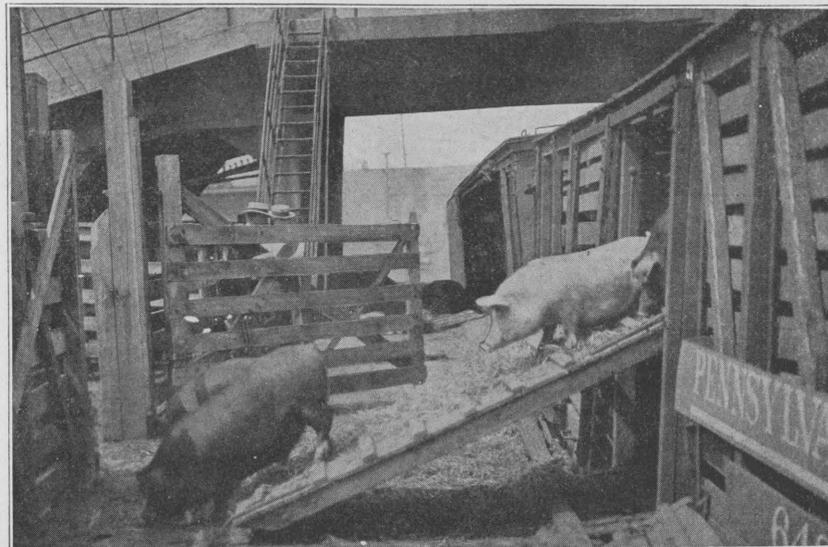
That carriers should supply proper drenching or sprinkling facilities at terminal and division points and, furthermore, furnish all water stations with

sufficient supply of hose so that if it becomes necessary to drench or sprinkle hogs in emergency the facilities are available.

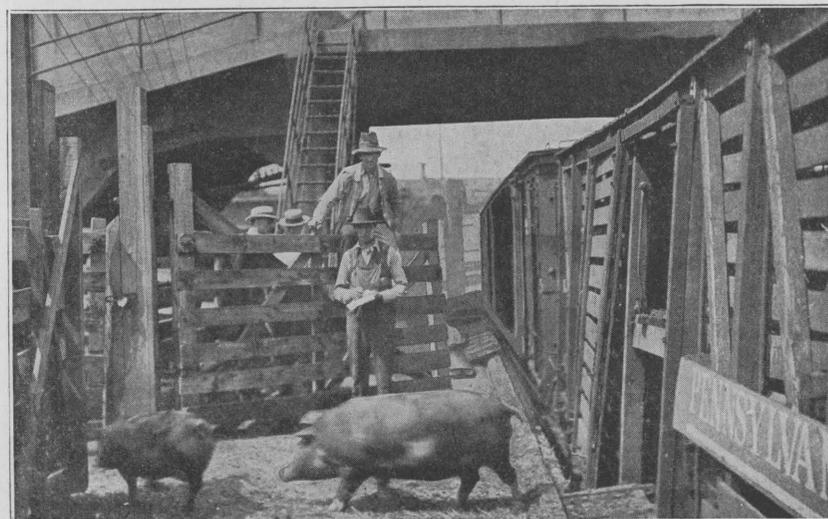
That the carriers place these facilities under the supervision of competent inspectors and issue such instructions

I recall that within less than two years one road in one day brought 160 dead hogs into one of the Missouri River markets simply because they had ordered the crews not to water them.

EVERETT C. BROWN,
President, National Live Stock Exchange.



Even where care is exercised, hogs find inclines treacherous. Although the unloading runway has cleats, several hogs fell to the platform while the photographer was trying to get a picture.



This is the ideal arrangement. Here we have the car floor and the unloading platform on practically the same level and there is no way in which the animal can fall or meet with other injuries.

as will guarantee that hogs be given the proper attention as to drenching or sprinkling.

That instructions be explicit, clear and concise. The thought to be kept

in mind at all times is that the carrier is responsible for the proper care of live stock while in its possession, and the importance of drenching and sprinkling live stock must have the careful attention of employees handling this traffic.

Crippled and Dead Live Stock Report

The following report, compiled by the Western Weighing and Inspection Bureau, shows the number of cars of live stock received and forwarded, and the number of crippled and dead animals checked from shipments received at several markets during the year 1919 and the month of May, 1920:

Inspection Point	Cars Received		Cars Forwarded		No. Crippled & Dead	
	Year 1919	May 1920	Year 1919	May 1920	Year 1919	May 1920
Chicago.....	296,082	22,632	24,431	813	62,792	3,410
E. St. Louis.....	110,960	7,309	33,357	1,562	29,300	2,377
Kansas City.....	159,748	10,242	56,886	2,595	19,307	1,265
St. Joseph.....	59,696	4,774	12,989	1,234	7,106	830
Oklahoma City...	22,338	1,700	5,655	364	1,825	187
Wichita.....	13,199	1,069	5,367	340	916	109
South Omaha....	135,771	8,806	47,108	2,498	17,693	1,303
Sioux City.....	68,421	5,491	28,598	2,169	10,685	692
So. St. Paul.....	80,891	5,070	44,101	1,269	11,868	1,235
Denver.....	38,918	3,340	26,544	2,531	2,841	207
No. Fort Worth..	46,057	5,148	20,502	2,955	5,296	653
Total.....	1,032,081	75,581	305,538	18,330	169,629	12,268

You must not, unless you want to kill hogs, let them go until they get hot, and I will tell you when a hog's mouth is open, it is hot. If you throw cold water on him you will kill him. He cannot stand that.

IRA F. BRAINARD,
President, Pittsburg Live Stock Exchange.

DON'TS

THE following "Don'ts" are summarized by the Institute of American Meat Packers from a discussion at the recent conference in Chicago on ways and means of reducing live stock losses:

DON'T permit cinders, rock dust, coal slack and similar materials to be used for bedding for your live stock.

DON'T try to save money by overloading a car. Overloading means crippled, trampled, suffocated and dead animals.

DON'T trust to luck that the railroad has removed protruding nails from the car furnished to you and **DON'T** assume that the door fastenings, floor patchings, etc., are in an acceptable condition.

DON'T let drivers hurry your hogs down or up steep chutes.

DON'T try to save time by driving hogs to death in hot weather.

DON'T throw cold water on the back of an overheated hog. Throw a fine spray on his belly or sprinkle the floor of the car or pen.

DON'T load hogs in cars when they are hot or panting. It means death from suffocation.

DON'T forget that the bruised and crippled hog bruises and cripples the shipper's credit balance.

DON'T fail to complain if pens are paved with mud or if chutes are dangerously steep.

DON'T reload cripples found when stock is fed or watered in transit.