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Marketing Your Grain

A Series of Articles Showing the Various Stages and Steps by which the Grain Crop of Western Canada is carried from the Farm to the Foreign Market

Article II.--Sampling and Inspecting

The methods by which the grain is sampled and grades determined has been the cause of considerable discus-sion thruout Western Canada for a number of years and will undoubtedly continue to be a matter of lively interest for years to come. For this reason an absolutely accurate account of the system of inspection and grading is desirable to place before the readers of The Guide. The following account of the inspection and grading was written by Dr. Magill, chairman of the Board of Grain Commissioners, and may be taken as authoritative and reliable.

Inspection at Winnipeg

The grading of the grain cannot be easily done in the railway yards. Uni-formity is essential to good grading, and if different inspection offices were placed in the different railway yards, uniformity could not be so well maintained. Further, such offices would be far from the place where the grain is bought and sold. Shippers and buyers of the grain require to be in close touch with the inspection office. The actual grading, therefore, and the issuing of the certificates are done in offices rented by the government in the building of the Grain Exchange. Samples are taken. from the car. The other details neces-sary for the issuing of the certificates are collected in the yards, and both the samples and the details are taken to the inspection office in the Grain Ex-

As the grade is given by the inspector upon the samples presented to him, and as he does not see the car from which the sample has been taken, it is essential that a fair average sample be secured. Further, as the length of time between harvesting and the close of navigation on the Great Lakes is only about seventy days, no obstacle must be put in the way of rapid transportation of the crop. The trains reach Winnipeg every day in the week, and every hour of the twenty-four. Sampling is done, therefore, by night as well as day, and on Sunday as well as other days.

The samplers work together in gangs in shifts of eight hours. They work in gangs because team play is more efficient than solitary effort. Usually the gang consists of fourteen men, four of whom are track foremen, eight are samplers, one is a car opener and one a car sealer

Checking Up the Train

On the arrival of the train the conductor leaves the car bills in the railway company's yard office. The train clerk of the inspection department makes a list of these bills, showing the car numbers, the name of the shipper, the shipping station, the destination, and the name of the person or company to whom the car is billed. These details are necessary for the issuing of the car company's yard office. The train clerk are necessary for the issuing of the cer-tificates. He takes this list to the yard office of the inspection department, and hands it to the clerk there. This clerk is also a government employee, and his work is to prepare the sheets needed in the inspection office. These sheets are two in number, a larger and a smaller. The larger sheet shows all the details mentioned, and the smaller, a carbon copy, only shows the car num-ber and a column for the grade. Both these sheets are sent to the inspection office with the corresponding samples, but the larger sheet with all the details is given to the clerical staff who issue the certificates, while only the smaller sheet is given to the inspectors who grade the grain. In this way all knowledge of the ownership of the grain is kept from the man who grades it. He

As was stated last week on this same page, it is not claimed that there is very much new material in these articles. The facts published are taken from the Canada Grain Act, Dr. Magill's pamphlet on inspection. The Saskatchewan Commission Report on Grain Markets, various documents put out by the Grain Commission and other public sources. It is important, however, that farmers whose chief source of income is from grain should spend some time studying the methods by which the grain is handled and marketed. The Canadian system of marketing grain is a good one, but it is not perfect, and as the weaknesses in the system are found they can be corrected. Every farmer who reads these articles should provide himself with a copy of the Canada Grain Act, which can be had free for the asking from the Department of Trade and Commerce, House of Commons, asking from the Department of Trade and Commerce, House of Commons, Ottawa, Ont. Another document which every farmer should have is a pamphlet entitled, "Grain Inspection in Canada," by Dr. Magill, which can be had free of charge upon application to the Board of Grain Commissioners, Fort William, Ont. A copy of the last report of the Board of Grain Com-missioners can also be secured free from the same source and should be on every farmer's bookshelf. Another valuable public document is the re-port of the Grain Markets Commission of Saskatchewan, which may be had free of charge upon application to the Department of Agriculture, Regina. There is a tremendous amount of valuable information on the grain trade which cannot be published in the articles in The Guide, and additional read-ing in the reports mentioned above will be very helpful to farmers who are interested in the grain trade. interested in the grain trade.



A gang of samplers in the Winnipeg yards ready for work, consisting of track foremen, a car opener, a car scaler and a cierk. The probes or "stickers" are for taking samples.

does not know whose grain he is grad-ing; his information is limited to the number of the car.

Taking the Sample

When the train is ready the work begins immediately. A train consists of about forty-five cars, and the gang should finish with it in less than one hour. The car opener leads off, opening the car doors, and placing an empty sample bag in each car. These bags are well cleaned beforehand, so that no for-eign matter shall be mixed in the sample.

The sampler mounts the ladder, enters the car on top of the grain, and drives his probe into the grain several times and at several points. He empties the grain each time out of the probe on to a cloth laid on the grain near the car door.

The space between the grain and the roof of the car is not deep. A line, called the load line, marked on the inside of the car shows how deep the car should be loaded. It sometimes happens that a car is loaded so full that a fair sam-ple cannot be taken. In such cases the



Probing the grain, showing the sampler with his probe or "sticker" on top of the grain, the track foroman usen a ladder leaning thru the car door, the cieth usen which the srain is emptied, and the sample ticket

fact of overloading is put on the ticket by the sign "I.H.," which means "hold for inspection." Such cars are pro-visionally inspected at Winnipeg. The car numbers are sent to Fort William with instructions to inspect while being unloaded unloaded.

Plugged Cars Penalized

Less frequently cars are "plugged" loaded, that is to say, with intent to get some low-grade grain past the inspec-tor by concealing it somewhere in the car. The sampler may discover the fraud, and if he does not the inspector fraud, and if he does not the inspector at the terminal point usually does. Plugging is a losing game for the ship-per, for the whole car is graded accord-ing to the quality of the worst grain found in it. If the car is divided by partitions, a sample is taken out of each partition, otherwise the unit of quantity for sampling is the car.

The track foreman mounts the lad-der, leans over the car door, watches the probing, mixes up the sample so as to secure an average, puts it into the sample bag, writes the sample ticket, inserts the ticket in the sample bag, and on descending hangs the bag on the car door.

on the car door. His name is stamped on the back of the ticket, and on the face he writes the car number, the date, the load line, the initials of the sampler, and any other notations necessary, e.g., leak-ages, etc. Should any questions arise later about the sample, the ticket shows who did the work the notations made who did the work, the notations made at the time and the name of the foreman responsible.

When the sampling is finished the bags are collected, counted and taken to the government office in the yard. The numbers on the sample tickets are checked with those on the track sheet by the car office clerk, and both the samples and the sheets are sent im-mediately to the inspection office. The car sealer follows the samplers,

The car scaler follows the samplers, closing and scaling the doors. Every car is scaled at the shipping point by the railway agent. The object of scal-ing is, of course, to protect the grain on the way. At Winnipeg only one door of the car is opened, and there-fore only one scal is broken. The car scaler rescals that door, and the scals are not touched again until the car is placed at the elevator to be unlocked. When the samples reach the office they are set out on the tables accord-ing to number, those ending in 0-2-4.

they are set out on the tables accord-ing to number, those ending in 0-2-4, etc., being put together. Each inspec-tor then takes his sheet, the small one prepared by the car office clerk, and picks out the samples the numbers of which correspond with the numbers on his sheet, and he places them in large boxes in rotation as they appear large boxes in rotation as they appear on the sheets.

Setting the Grades

The inspection proper then begins. As good light is essential to grading, the inspection begins at 9 a.m. and ends at 3 p.m. The north light being the best, each inspector does his grad-ing at a north window. The actual grading can only be done by men legally qualified and appointed either as deputy inspector or inspector. Inas deputy inspector or inspector. In-spection turns mainly on three points: the quality of the grain, the condition and the admixtures. The quality de-pends on soundness, color, weight and the percentage of hard wheat. The condition depends upon moisture con-tent (which in doubtful cases is tested mechanically), heat, etc. The admix-tures are tested by a process of sleving Continued on Page 14