

### Spontaneous Combustion.

Since the burning of S. A. Freeman's barn in Dereham Township, Ontario, considerable discussion has arisen regarding the danger of shredded corn and other similarly stored crops from spontaneous combustion. In the "Farmer's Advocate" of May 1st, letters from officers of Iowa, Illinois and Michigan Experimental Stations were published, showing the care necessary and the precautions to be exercised in the storing of shredded fodder corn, a good deal of which is handled that way in the Western States. This month we are in receipt of Bulletin No. 109, Kansas Agricultural College, dealing with spontaneous combustion of alfalfa or lucerne clover. The author, H. M. Cottrell, M. S., who is in charge of the farm at that institution, states that during the summer of 1901 there were many instances of alfalfa hay becoming so hot that it took fire by spontaneous combustion and was destroyed. Six examples are given, showing the conditions under which the loss took place.

O. L. Hull, Manhattan, Kan., began cutting a heavy crop of alfalfa when the first bloom appeared. It was left three days in the swath and then placed in windrows, where it remained three days longer before being stacked. This entire first cutting of 150 tons was placed in one stack in apparently good condition. The stack settled considerably and became very warm, but no danger was anticipated. About forty days afterwards, a small fire, resembling a locomotive headlight, was noticed by a neighbor, and before help could arrive the total crop was consumed.

Emmet McDonald, Manhattan, Kansas, also made his first cutting when the early blooms appeared, the last week in May. The hay was left in the swath for about a day, when it was placed in windrows by a side-delivery rake, where it remained for three days and was finally loaded with a hay-loader and placed in stacks of about twenty tons each. On the morning of July 25th, one stack was so hot that it was thought unwise to leave it any longer, as others stood near by. After a few feet was taken from the top, it was found to be too hot to handle, and it was well wetted and left to see what would follow. In three hours a blaze broke out about four feet from the ground and the stack was consumed.

Similar reports come from J. L. McCormick, Zeandale; George Washington, Manhattan; W. D. Poole, Briggs, and T. W. Andrews, Rossville, Kansas. In each case the hay was not stacked until it was considered sufficiently dry, and in every instance fire broke out in from forty days to two months from date of stacking.

In summing up these results, Mr. Cottrell states that in every case spontaneous combustion occurred with the first cutting, the growth of which was rank and the time for curing damp and unsatisfactory. With later cuttings the growth is not so rank and succulent, the weather is drier, and there is more wind, which makes curing easy. At the Kansas Station farm they have not had alfalfa heat sufficiently to take fire, but the first cuttings have often become very hot. During the last four years it has been stacked outside to ensure safety to buildings, while later crops have been stored in the barn without fear of loss.

The lesson to be drawn from these results are worthy the consideration of Canadian farmers in clover harvesting. Alfalfa is a comparatively new crop in this country, but its many excellent qualities have so commended it to stockmen in certain districts that a large acreage is sure to be grown. The practice of shredding corn, also, has lately been introduced, and if its popularity amongst American farmers is any guarantee of its suitability to conditions in this country, we may look for its more general trial. Heretofore, very little corroborative testimony has been forthcoming to show the possibility of loss in stored vegetable matter from spontaneous combustion. Further investigation is needed. In the meantime, it will be well for all concerned to take warning by the experience of Mr. Freeman and the farmers of Kansas State whose losses have been stated.

### Food for Dogs.

W. T. Buchanan has the following to say re feeding dogs, in the Live Stock Report, which experienced dogmen will bear out as correct: "As a rule, dogs of all kinds are ruined or their lives shortened by being gorged with meat, and, worst of all, fats. The best food for young dogs—or, in fact, any age—is well-boiled oatmeal and milk. The meal should be steeped in water for five to eight hours. When this is done, stirring it properly to mix it, five or ten minutes is quite sufficient for boiling to finish. It is the raw uncooked stuff, unfit for use of man or beast, that gives what Burns calls 'healsome parritch, chief o' Scotia's food,' a bad name. Whole-wheat meal, or good corn meal, would answer very well, properly prepared. No food is better for the 'second wind,' as anyone can prove. For old or young dogs, bones with a little flesh on them are invaluable. They serve to sharpen the teeth."

### Territorial Development of Agriculture and Stock Raising.

To the Editor "Farmer's Advocate":

In order to convey a fair idea of the development which has taken place in the agricultural and pastoral industries of the Territories during the past decade, it would be necessary to present a statement of production covering each year, but, as you are probably aware, the Territorial Department of Agriculture was only organized in 1898, and prior to that time no statistical records of any sort had been compiled, I shall, therefore, have to do the best I can with the material available, and will deal more particularly with the period lying between 1898 and the present time.

#### AGRICULTURE.

One of the most important economic crises which this country has ever seen took place during the present year, when the transportation company found itself unable to move the huge crop harvested last season within the usual period. The high yield in all classes of grain throughout the Territories was chiefly responsible for this state of affairs, but an examination of the crop-area statistics reveals the fact that the rate of production has increased during the past four years to a very considerable extent, and that with an average crop two years hence, the pro-

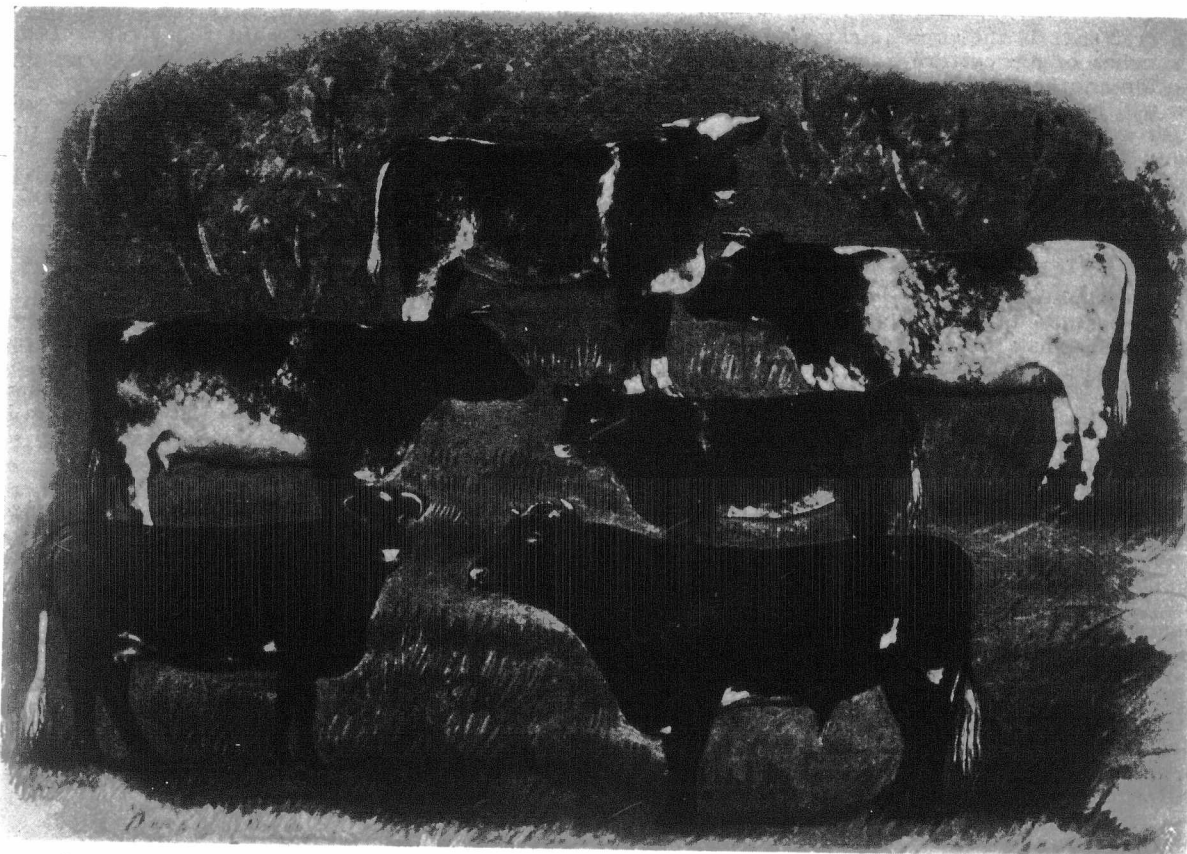
duction will exceed that of the past year. The area under wheat in the Territories in 1898 was 307,500 acres; in 1899, 363,500; in 1900, 413,000; and in 1901, 508,500. It will thus be seen that if the average rate of increase takes place during the present year, we may look for an area in wheat at least twice as great as that of 1898. The increase in the area under oats has been even more marvellous. The oat area in 1898 covered 105,000 acres; in 1899, 135,000; in 1900, 175,000; and 1901, 229,500. The acreage for the present year promises to be three times as great as that of 1898. Barley is not very extensively grown in the Territories as yet, although in the westerly portion of the country, where a standard price of 40c. to 45c. per bushel is paid for malting barley, it is one of our best-paying crops. One of the peculiarities of the colonization of the Canadian West is the steady advancement westward of the zone within which wheat can be successfully grown. I do not claim to be an old-timer in this country, but I can distinctly remember when the idea of growing wheat west of Moosomin was regarded with ridicule. During the year just past about 13,000,000 bushels were raised west of that point, with an average yield of 25.44 bushels per acre.

The burning question in the West at the present time is that of the transportation of our ever-expanding grain crop. A glance at the map will show that Moose Jaw is about the same distance from Vancouver, with an ocean port open all the year 'round, as it is from Lake Superior, ice-locked half of the year. The construction of a line of railway to the Pacific Ocean,

#### LIVE STOCK.

There are some 195,000,000 of acres, over 300,000 square miles, of land available for free grazing in the Northwest Territories; an area six times as great as the estimated combined grazing area of all the Eastern United States. On this enormous extent of country about 200,000 head of sheep, 600,000 head of cattle, and 175,000 horses are at present pastured. Almost every acre of this land will sustain live stock, winter and summer, and the great bulk of it belongs to the most fertile virgin prairie in the world. No higher tribute could be paid to the Canadian Northwest as a grazing country than the statement that all cattle and sheep exported are consigned direct to their final destination without any grain-finishing process, a procedure which would be absolutely impossible in any State of the Union. The total export shipment of finished cattle from the Territories in 1899 amounted to 41,500 head, and, at the most conservative estimate, there should be at least 70,000 head available for export during the present year.

The total area of the Colony of New South



Duchess 6th.  
Cinderella.

Countess 8th.

Queen.  
Diamond King.

Duchess 7th.

GROUP OF SHORTHORNS IN THE HERD OF JAMES THOMPSON, MILDMAY, ONT.  
(See Gossip, page 467.)

Wales is about equal to that of the Northwest Territories. We have 200,000 head of sheep, and up to a few years ago, New South Wales boasted of sixty million head, in addition to an enormous number of cattle and horses. This conveys a faint idea of the expansion which this industry is capable of in the Canadian Northwest. It is significant that, when the Territorial Government came to dispose of their range-sheep exhibit at the Pan-American Exhibition at Buffalo, it was found profitable to send these animals all the way back to Winnipeg to be sold. Winnipeg is at the present time the best market for mutton in Canada. In spite of its unlimited possibilities in the direction of sheep-raising, the Territories do not as yet supply even the British Columbia market. Over 20,000 carcasses of frozen New South Wales mutton were imported to Vancouver during the present year, in addition to a large quantity from the United States.

It is scarcely necessary to devote any extended remarks to the future of horse-raising in the Territories. With the enormous immigration now pouring into the country, which, for the present year, is estimated at some 50,000 souls, it is evident that the demand for farming horses of all classes will be quite beyond the abilities of the country to supply. Train-loads of farm horses are now being brought up at large transportation expense from the costly lands of Ontario. These animals can be raised at half the cost on our extensive prairie ranges. The day of depression in the horse business has passed, and the Western demand, at remunerative prices, is bound to keep well ahead of the supply for many years to come.