

Arrangements should now be completed for attending and making exhibits at the agricultural exhibitions.

Experimental studies upon lightning are in progress at the U. S. Weather Bureau, in charge of Mr. Alex. McAdie.

A. D. Selby, a graduate of the Ohio State University, has been appointed chemist to the Ohio Agricultural Experiment Station at Wooster.

The London (Eng.) Live Stock Journal reports a fresh outbreak of pleuro-pneumonia at Hendon. The farm where it occurred is one on which the disease appeared last year.

"Beware of fancy in cattle breeding," is the lesson drawn from the great Underley dispersion sale of Bates Shorthorns. In another column "Scot-land Yet" writes in an entertaining vein upon that event.

Reports from the English sheep fairs indicate a substantial advance in prices, from 8s to 15s being the increase per head, compared with last year. This rise is expected to influence the sales of pure-bred rams.

The Executive Committee of the Association of American Agricultural Colleges and Experiment Stations has issued a preliminary notice, announcing that the next convention is set for Nov. 13th, 1894, at Washington, D. C., and that the Sections on Agriculture and Chemistry and on Entomology have been designated to furnish parts of the programme for the general sessions of the convention.

M. Lucien Daniel, in a recent communication to the French Academie des Sciences, concludes that graft hybridization is possible in the case of certain herbaceous plants, which may be endowed with new alimentary qualities by grafting them on plants better endowed in this respect than themselves, and by sowing the seeds produced by the graft. The most striking results thus far obtained have been with the Cruciferae.

We regret to record the decease of one of America's most prominent and useful agricultural writers. We refer to the late Mr. Henry Talcott, of Jefferson, O., who died July 12th. Mr. Talcott was a man of unusual force and energy, prompt to decide and quick to execute. His attitude upon all questions was the result of settled conviction, and his opinions were always expressed fearlessly. He lived a positive, useful life, and departed leaving good and lasting influences behind him.

Following is a summary of the recent sale of the Underley herd of Bates Shorthorns, dispersed owing to the death of the Earl of Bective:

	Average.	Total.
23 cows and 8-year-old heifers.....	250 20	£1,152 7 6
11 2-year-old heifers.....	62 8 6	686 14 0
16 yearling heifers.....	36 15 8	588 10 6
5 bulls.....	34 13 0	173 5 0
12 yearling bulls.....	38 10 7	438 7 6
3 bull calves.....	16 2 0	48 6 0
70 Shorthorns.....	44 2 1	3,087 10 6

The general average of a series of experiments at the Pennsylvania Experiment Station, extending over four years, showed that a hundred pounds of dry matter produced about four pounds, or, approximately, six per cent. more milk when the cows were fed on a ration which included ensilage than when given a ration containing roots. It required from 0.20 to 0.33 pounds more digestible matter to produce one pound of milk solids, and from 0.068 to 1.94 pounds more to produce one pound of butterfat during the period when roots were fed than in the periods when silage was fed.

Under "Impressions of Canada," Mr. W. Fraser, Balloch, Culloden, makes, among other comments, the following, in a letter in the Scottish Farmer: "That pleuro exists in Canada has never been proved. On the contrary, twelve veterinary surgeons, who examined the farms from which the suspected animals were taken, reported that it did not exist, and the Imperial Government refused to send veterinary surgeons from Britain, although invited to do so by the Canadian Government. I believe that the home authorities were placed in a difficult position, but the fact that no disease has appeared in Canada shows that their action has been a mistake, and a mistake that it will be found very difficult, if not impossible, to repair." That is to say, the Home authorities will not own up to their blunder, and having taken the first wrong step, like most wrong-doers, will persist in going forward to the bitter end.

Exports of pure-bred stock for Great Britain have been slack during this year. The Australian Colonies have taken some choice cattle and sheep, and among others, the Lincoln breeders sent a number of valuable sheep to the Argentine.

It behooves everyone in charge of a threshing engine to exercise the greatest care over every danger from fire, especially at this dry season of the year. Engines often have to stand quite near a grain or haystack, and should the smokestack reservoir be allowed to go dry, or the spark-arrester be not in perfect condition, there is great danger of firing the buildings. There is also danger from the damper. While drawing the coals forward, should live cinders fall on a dry surface at the time of a fair wind, sparks may be blown into the barn. A fall never goes by without several barn-burnings, caused by threshing engines, and 19 out of 20 cases are due to carelessness.

The opinion is held by some feeders that hogs do better on dry chop than on that which has been soaked. The argument in favor of the dry feed is that slower mastication calls forth more saliva, which by a chemical action in the mouth and stomach changes much of the starch into sugar. This theory seems all right, but experiments fail to authorize the assumption of the theory as a fact borne out by experience. Meal that has been soaked for 10 or 12 hours is in splendid form to be readily digested on coming in contact with the juices of the stomach and intestines. It is also more palatable than dry food, and, therefore, much more will be eaten at a feed. Slight fermentation seems to have a beneficial effect upon it.

"Before the Improved Large White pigs were imported into Canada, Messrs. Davies & Co. used as an argument to the Canadian farmers to pay more attention to the form and feeding of their pigs, that Canadian pigs were mainly unsuited for their trade, and that they were at that time compelled to buy a considerable part of their supply from the States. From this one is compelled to draw the conclusion either that the Canadian pigs have vastly improved and increased, or that the pigs in the States have deteriorated, or maybe it is a little of both."—Sanders Spencer in Breeders' Gazette.

The reason that Canadian packers drew their supply of pigs from the States was simply because the pigs in sufficient numbers were not in Canada to be got, suitable or unsuitable. Now, the supply is more commensurate with the demand. As to whether the States hog has deteriorated, and how that has taken place, we will leave Mr. Spencer and the States hog raisers to settle.

Russian Thistle.

Some specimens of this dreaded pest have been discovered along the railroad track on the Morris-Brandon branch of the N. P. & M. As soon as the samples sent in to the Department of Agriculture were identified as being the real Russian thistle, immediate steps were taken to have the infected spots located, and all weeds destroyed before seeding. The seeds have undoubtedly been brought in on freight cars and scattered along the whole length of the lines. Too much vigilance cannot be taken to eradicate this pest before it has obtained a foothold. In the FARMER'S ADVOCATE, Sept. 20th, 1893, appeared a complete description of this weed, accompanied with illustrations.

The weed bulletin is now ready for distribution, and contains minute descriptions and cuts of this and other noxious weeds. Not only should every farmer obtain a copy of this bulletin and study it, so as to know what these weeds look like, but everyone else interested in the welfare of the country. Apply to the Department of Agriculture, Winnipeg, for copies. We are pleased to notice, also, that the Botanist of the Experimental Farm, Ottawa, is preparing information on the Russian thistle, to disseminate throughout the Province and Territories.

The Calgary Summer Fair.

The July fair of the Calgary Agricultural Society was even more successful than the previous ones. The races were, of course, the chief attraction, but the show of stock was very creditable.

R. & J. A. Turner's Thoroughbred stallion headed the list in his class.

A. M. Rawlinson won first and second on Hackney stallions.

W. D. Shattuck and Bryce Wright divided most of the honors in Agricultural and Heavy Draught classes.

Shorthorn, Hereford, Polled-Angus, Galloway and Holstein cattle were shown.

A Celebrated Guernsey Cow.

Our front page illustration in this issue represents the noted Guernsey cow, Mountain Maid 2nd, owned by Mr. Julian Stephens, Finchley, London, Eng. She has earned the distinction of capturing 1st prize in her class, and also the first milking prize at the great British dairy shows of 1890 and 1892, as well as the champion cup for the best animal of the breed in 1892. The English Live Stock Journal, from which our illustration is re-engraved, states that the abandonment of the cattle section in 1891 resulted in her not appearing that year. At the last dairy show she was placed 2nd in her class, her yield of milk being 26½ lbs. at one milking, testing 3.6 per cent. butterfat, while the cow placed before her gave 17 lbs., testing 4.9 per cent. butterfat. However, in the contest for the English Guernsey Cattle Society's £10 cup for the best animal, judgment to be made by a jury of three, on the lines of competition ruling at the summer shows as well as at previous dairy shows, the position was reversed, and Mountain Maid received the award. Subsequently she was placed first in the milking competition, and also took the Lord Mayor's cup once more.

The Guernsey cattle have always stood well in the estimation of the public, which reputation has been won by their own actual worth, as they have never been boomed as some of the other breeds have.

Their numbers in Canada and the United States have never been very large, but are now being rapidly increased. The exhibit of Guernseys at the last Toronto Industrial fair excelled, both in numbers and quality, that of any former Canadian show, which should be a good representation of their standing in Canada at that time.

The home of the Guernseys is one of the Channel Islands, being quite near that of the Jersey and Alderney, although quite distinct from either of them. Their breeding is of the purest, as the laws of the Island of Guernsey have long prohibited the admixture of foreign blood, which fact undoubtedly decides their very prepotent qualities. As compared with the Jersey, they are larger in size, with a little more coarseness and hardness. It is claimed that they are more easily fattened and give a greater quantity of milk, but are not necessarily larger buttermakers. The Guernsey cow is a striking illustration of what can be obtained by breeding judiciously in a certain direction for a long time.

The Columbian dairy test gave the Guernseys second place, as compared with the Jerseys, but when we consider the vast difference in the numbers from which the members of each of the competing herds were selected, we could hardly expect any better showing. In the 30 days' test the following results were obtained:

	Jerseys.	Guernseys.	Shorthorns.
Pounds of milk.....	13,921	13,518	15,618
Pounds of butter.....	.837	.724	.662
Cost of food.....	\$111.24	\$92.77	\$104.55
Cost of butter per lb.	0.133	0.128	0.158
Profit on butter.....	0.328	0.327	0.301

In the 90 days' test the records for the entire herds were as follows:

	Jerseys.	Guernseys.	Shorthorns.
Pounds of milk.....	73,478	61,781	66,263
Pounds of butter.....	4,273	3,360	2,890
Cost of food.....	\$587.50	\$484.14	\$501.79

Agricultural Depression and its Remedies.

The English Agricultural Gazette gives a report of the investigating commission who have been endeavoring to arrive at conclusions regarding the present depressed condition of farmers in England. The causes of depression mentioned are bad seasons, low prices, foreign competition, increase of rents in time of inflation and too slow decrease since depression commenced, and change in currency.

The remedies proposed by witnesses examined are so numerous that at least two sessions of Parliament would be needed to carry them into effect. It is said that very few advocated protection. Many recommended bi-metalism, and a considerable number pleaded for fixity of tenure, valued rents and free sale; State loans to landlords, the same to tenants, freedom of cropping and sale of produce, reduced rents, a Pure Beer Bill, reduced railway rates, the prevention of preference railway rates, the readjustment of local taxation, State loans for the redemption of tithe and Land Tax, the amendment of the Agricultural Holdings Act in various ways, the strengthening of the Margarine Act, the abolition of the system of letting sporting rights over the heads of tenants, the cancelling of existing leases, compensation for disturbance, the more effectual prevention of cattle disease, sliding-scale rents, co-operation in buying and selling, the establishment of State granaries for storing corn, the abolition of market monopolies, the marking of foreign meat, and the improvement of technical education.