Act which established it. Mr. Fielding's idea at the time the Association was formed was that the farmers should meet together and discuss agricultural questions, and give the Government information as to their needs. He thought the Government information as to their needs. He thought the Government was always ready to render help, and that the present trouble was due to the farmers, in that they had not properly asserted themselves. They should never take a position second to anybody. He thought his position in the Government, as the representative of the agricultural interests, should receive consideration. He found great difficulty in pressing the claims of agriculture, as representative men of other callings opposed those claims. They could not see why mining and fishing should not be subsidized as well as agriculture. Speaking as a farmer, he would not listen to any proposal to withdraw the grant, and proposed that the Association send a delegation to wait upon the Government.

Feeding of Plants and Animals.—Col. Blair, of

Feeding of Plants and Animals.—Col. Blair, o Nappan, gave an address upon the feeding of plants and animals. A knowledge of the subject would be of great benefit to the young people, and would give them an interest in farm life. It was our duty to make them understand the science and beauty of farming in order to excite a love for it in them. If they were properly instructed, farming would appear a fascinating and profitable calling, and it would be a pleasure to pursue it. He did not think this Association need concern itself about the rich agricultural districts, it was the poor sections that required scientific treatment. The condition of the poor farmer was deplorable; better information was their only hope. A correct knowledge of how plants and animals grow would be of great benefit, as he would then know what his soil lacked and how it could be best supplied. The Government farms could only give general principles, each man would have to think for himself. Plants and animals require three things, air, water, and food, in order to develop. The power of reproduction in them is very similar. In some plants the male and female organs are contained in a single flower, while in others the male flower grows upon one plant and the female upon the other. In the latter case fertilization takes place through the medium of insects which carry the pollen from one plant to another. In order to grow plants properly we must know what they require, and this can be found by experiment or by analysis. With the exception of three things—phosphoric acid, nitrogen, and potash—all soils contain enough of plant food. These three can be supplied by special fertilizers, barnyard manure or by plowing down green crops. While plants require water to grow, too much water is bad for them, and therefore wet land should be underdrained. While draining will remove the surplus water, good cultivation will enable the soil to retain sufficient moisture for the use of the plant. The seed-bed should be made firm in order that the young roots may easily penetrate it, and the top soil kept loose, thereby preventing evaporation. The kernel of grain itself supplies food to the young p'ant until its roots have pushed out into the soil and are able to find their own sustenance. He spoke of the necessity of getting strong germinating seed, and said that seed grown in Nova Scotia was weak in this respect, only 70 per cent. of it germinating in certain experiments, as against 94 per cent. of grain grown in other provinces. Selection of seed and good cultivation re the best guarantees of a good yield.

Cattle wanted food which they could eat and diges

Grass is their natural food, and none better can be found than our native agricultural grasses. Fifteen tons of corn to the acre can be grown in Nova Scotia with good cultivation. One ton of corn at the glazing stage was equal in feeding value to two tons at the silking stage. Turnips car be grown for \$2 a ton when labor is \$1 per day. He would not undertake to keep cows without ensilage He fed roots not undertake to keep cows without ensilage He fed roots by themselves and the hay was cut, moistened, and the meal added. He recommended saving all ashes and bones ing of clover, as they wou'd furnish as good fertilizers as any to be bought.

Needs of Technical Education .- Saxby Blair, Supt. of Horticulture at Experimental Farm, Nappan, spoke upon the needs of technical education. He thought the sent system of education defective, as no subjects relating directly to agriculture were taught. If a young man wanted a practical agricultural education he had either to go to Guelph or to the United States. The School of Agriculture at Truro did good work, but it imparted instruction to Normal School applies principally. Normal School pupils principally. It was impossible for one man, as was the case at Truro, to successfully manage half a dozen different departments. There should be three at least. The future of farming depended upon the young people, and these shou'd be prepared to successfully carry it on. Instruction was only laying the foundation for the structure which each must erect for himself. Knowledge of the sciences was only formulas by means of which investigation could be carried on. It was the duty of the Govern ment to promulgate education - patriotism demanded it.

Prof. Smith, of the School of Agriculture at Truro, said that thirteen years ago, when the School was first started, he had been brought here, given a bare room, and told to go ahead. By the Act which established the School it was bound to give instruction to Normal School pupils. Before that time no scientific knowledge had been required of them. Now they spend one half of every day from the 20th of October to 1st of July in working at the School of Agriculture, and they were required to show that they had a satifactory knowledge of agriculture before they could get their certificate Only first-class teachers took this course, and through them 2,000 children received agricultural instruction in the common schools. He complained that too few farmers' sons attended the schools. It was now made a stepping-stone by others to obtain an education.

Peter Innis asked if the Model Farm was run on a paying basis. If it paid its expenses it would be a good object lesson, but if it did not of what was its use? Secretary of Agriculture B. W. Chipman said that it was a training-school only, and had been of great benefit to the Province. The stock upon the farm was poor. That department had been started wrong, and he had not yet been able to remedy it. Another speaker said that in the matter of agricultural can improve it more I do not see.

education the farmers could do a great deal to advance it.

They should choose for their schools those teachers holding certificates from the School of Agriculture. The Government farm was there for instruction and not for experiment al purposes. He thought the Government was willing to do more than the farmers to take advantage of their help. Hardly half the agricultural societies sent delegates to thes meetings, and as the Government paid half their expense he thought those which did not send delegates were misap propriating their money. W. A. Ferguson, M. P. P. for Guysborough, said he thought it was very much in favor of agriculture that this Association was started, and that it was important that it should be kept alive. He thought the Government did wrong in reducing the number of the Exhibition Commissioners appointed by the Association, and argued that a strong appeal be made to the Government to continue the grant.

Exhibition Matters .- Peter Innis submitted the prize list for approval by the Association. He said that last year the prizes had been increased from \$12,000 to \$20,-At the close of the exhibition there had been a deficit of \$10,000. As the exhibition had to be made to pay, he ded that a reduction of 20 per cent. be made from the list. He thought too many prizes were given to breed ers and not enough to other products. The prize list for pure-bred stock was larger than that of any other exhibition He thought breeders should consider the facthat an exhibition was the best advertisement they could get. The prizes for grade cattle should be increased. The orizes for fowls were poor and there were not classes enough

and the classes and prizes for grain should be remodeled.

Mr. Edlerkin, the other Commissioner, said that while the last exhibition had been a good one, it had been a failure financially. He thought the agricultural interests were not properly represented in the Commission. When the Commission was formed it was provided that the Government should appoint fave members, the City of Halifax five and this Association two members. When the prize list was passed by the Commission it was two members short, there being only three to represent the Province. The vote upon its adoption had been a tie, and the President, Hon. Mr. Longley, had decided in its favor. He thought no reduction should be made in the prize list for pure-bred animals, and that every class of pure-breds should have a corresponding class of grades; that a spirit of competition should be aroused and breeders given every encouragement. The breeders' herd prize should not have been struck out, and a champion herd prize should never be given, as herds of different breeds could never be judged one against another. He thought there should be a great reduction in the amount spent for special attractions; they were expensive, and detracted interest from the exhibits. This was the first time this Association had had a chance to criticize the prize list, and it would not be accepted by the Government until approved by the Association. Secretary of Agriculture B. W. Chipman said that the Government had not yet accepted the prize list. He recommended some changes involving an increase of \$300, and thought no reduction should be made on live stock. Hon. Mr. Black said that it would only be in extreme cases when the Government would interfere. The most important industries should receive the most attention. Horses were not so important as cattle, and the prizes on cattle should not be reduced and those on horses retained He thought more attention should be given to sheep. Mr. Innis said the great question was how to meet the deficit. Neither the Government nor the city would pay it, and the Commissioners had to make two ends meet The only way it could be done was to reduce the expenses and he thought the prize list should share in the reduction. He maintained that the money spent for special attractions was well spent, as it drew crowds and paid expenses.

As the discus ion was getting rather warm and personal, was moved, seconded, and carried, that the reports be adopted, thereby cutting short further discussion.

San Jose Scale. - Mr. Eaton spoke for a few minutes

upon the San Jose scale. He thought orchardists should post themselves about it, and that nurserymen should give guarantee with their stock. He brought in a resolution asking the Government to legislate in respect to it. Mr. G., de Wolfe, of Kentville, delegate of the Nova Scotia Fruit Growers' Association, seconded the resolution, and said that the Fruit Growers' Association had already asked the Government to legislate. The resolution was adopted.

It was Resolved,—That this Association express its

disapproval of the change in the prize list from that of 1897, and ask the Exhibition Commissioners in future to make the lists no smaller than that of 1897 so far as horned cattle, sheep and pigs are concerned. The resolution was carried.

Secretary of Agriculture Chipman said he thought he had come to the funeral of the Association, but it had turned out a birth. He had been present at its formation three years ago, but thought it was making a better start now than then. It had not done much during the past year b cause the Government had said that no more ense was to be incurred, but it had established the exhibition and that had been a good work. He did not think the Government by withdrawing the grant intended to do less for agriculture, and was sure the Government would give favorable consideration to representations of the Association. He would do all in his power to assist the Associ-

The election of officers for the ensuing year was begun and took up the whole of the evening session: J. R. Starr, Port Williams, President; Col. Blair. Nappan, 1st Vice-President: Wm. Corning, Yarmouth, 2nd Vice-President. Directors.—W. A. Ferguson, M. P. P., Guysborough; J. R. Moore, Shubenacadie: W.W. Jones, Weymouth; J. M. Bailey, Pictou: D. W. B. Reid. Musquodoboit. Auditors.—Wm. McKerrow, Halifax; S. C. Parker, Berwick.

Exhibition Commissioners.—J. R. Wyman, Yarmouth G. C. Lawrence, Port Hastings.

Mr. H. W. Smith, Principal of the Nova Scotia School of Agriculture, under date of February 21st, 1898, writes us: "Each year your paper seems to excel the preceding one, although just how you Maritime Notes.

MARCH 15, 1898

In my last letter I spoke of the New Brunswick Government's proposal to encourage wheat-growing, and said that while I believed that wheat could be profitably grown (that is that a good average yield could be obtained) it yet remained to be proved that it could be manufactured into a good marketable grade of flour. A test was a good marketable grade of flour. A test was re-cently made with wheat grown in Antigonishe Co., N. S. A lot of wheat grown at the Trappist Monastery at L'Acadie was sent to the mills of the New Glasgow Milling Co. to be ground. They reported that it made a No. 1 grade of flour, but that on account of not being dry enough it required a little more than of Western wheat to make a a little more than of Western wheat to make a barrel. As the climate and conditions and the quality of the wheat grown are very similar in Nova Scotia and New Brunswick, this test would also apply to New Brunswick. More tests of a similar kind, with wheat grown in different sections of the Province, should be made before the Government commits itself by any legislation. The dampness of the wheat is the greatest difficulty to be overcome. Our autumns are wetter than those of the West, and it is harder to properly cure grain, but I think the greatest of damp wheat is to be found in the present system of harvesting. It is the general practice to cut all grain with the scythe one day and haul it in the next, allowing it to sweat and cure in the mow. This, it seems to me, is the very root of the evil. The wheat must be cut before it is thoroughly ripe and hardened, and the large amount of moisture in both grain and straw can never properly dry out in the mow, and the heat engendered must darken the flour. If the grain were bound, stooked and capped, and allowed sufficient time to become thoroughly dry and hard before storing in the barn, I think a very much finer quality of flour would be obtained.

At the last meeting of the Nova Scotia Farmers' Association great stress was laid upon the need of better facilities for obtaining an agricultural education. That is true, and no doubt the Government should do more than it now does in the matter, but farmers are very slow to take advantage of the means already within their reach.
They can obtain for the children elementary instruction in their local schools by employing teachers who have graduated from the Normal School in Truro. These teachers, if they hold a first-class certificate, will also have taken a course at the School of Agriculture, qualifying them to teach. More advanced instruction can be obtained at the School of Agriculture in Truro. This school, which has a fine farm attached, combines both theoretical and practical instruction; that is, the student spends part of the time in the classroom and part in actual work upon the farm. The school, while well equipped with buildings and apparatus, is in great need of more professors, there being at pres-ent only one. Prof. Smith has done good work, but he cannot handle a great number of subjects and do them justice. It remains with the farmers to remedy this matter. If by sending their sons to the School of Agriculture they will show that they recognize its necessity, I have no doubt the Government will do all in its power to increase its efficiency. The only hope of future advancement is in the better instruction of the young. Good farmers are scarce among us. Modern and improved methods are known to but few and practiced by still fewer. We are producing the same things in the same way our grandfathers did, only not so much of them or of such good quality. We have been going backward rather than forward. It is time to stop and make a forward movement. It must of necessity be a good country when, with farming carried on as at present, our people are able to make a living, and I maintain that there is no place in America which offers better prospects to a good farmer than Nova Scotia and New Brunswick.

There is a complaint from farmers from all parts of the country that they cannot sell a great part of their produce for cash, but must take payment in trade. It seems a pity that so many old-fash-ioned ideas should still be in existence. They all tend to retard progress rather than advance it. Dealing in trade is not only a poor system of doing business, it is putting a premium upon the production of poor goods. It also lowers the dignity of the farmer, for it is the merchant who then occurrence the highest resident was a source of the highest resident who have been according to the highest resident was a source of the highest resident was a sour pies the higher position. As the business is now carried on, the merchants of a town agree to allow a certain price for a certain article. It is of no use going to a number of them trying to get more. A very inferior article will be allowed that fixed price; a superior one will not command a greater. Butter is butter, eggs are eggs, wool is wool, irrespective of quality or condition. Is it likely to encourage a man to make good butter when bad will pay him as well, or to improve and care for his sheep when poor and dirty wool will bring as much as his good and clean article? In order to live, to improve his farm and provide necessary machinery the farmer needs all the money he can get. How can he do this when he has to take pay for what he sells in groceries, cloth, shoes, etc.? How can this state of affairs be remedied? I can only see one way: by the farmers of a district uniting and either compelling the merchant to pay cash or to market their goods in the large towns where business is carried on on a cash basis, and by buying their supplies in the same way. This subject will soon have to be seriously considered. I wish some of the ADVOCATE readers would give

their views and advice upon it.

The Eastern

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