Farm after the choice lambs had either been disposed of early for mutton or had been set aside for breeding. They were from Dorset sires and common grade dams, and were rangy, rather high up from the ground, and were also lacking in width. The range lambs bought from Wm. B. Shaw, of Culbertson, Montana, were from Oxford Down sires, and were good specimens of range lambs.

The two lots were under experiment early in November, 1897, and were disposed of in March. The experiment proper lasted 112 days, and both lots were sold by Col. W. M. Liggett, the Director, to P. VanHoven, of Minneapolis. The lambs were valued at \$3.41 per 100 lbs. at the beginning of the experiment. This valuation was on the basis of the actual cost of the range lambs laid down at the station, and it was not far different from the actual prices heing paid at the time. They brought \$5.50 per 100 lbs., shrunk weight.

The food consisted of oil cake, bran, barley and oats in the proportions of 1, 2, 3 and 4 parts respectively; clover and timothy hay, clover predominating; and sorghum ensilage. The food was fed in two feeds daily, except the ensilage, which was fed in the evening only. The lambs were given all they would eat clean of the various foods fed. The hay was not cut, nor was the grain ground, and water and salt were plentifully supplied. They had the choice of a shed or of a yard except in stormy weather.

The food fed was charged at the ordinary market values of the same in Minnesota. This made the oil cake \$22per ton; bran, \$750; hay, \$4; ensilage, \$1.20; barley, zoc. per hu., and oats 17c. These prices are more in some instances than was actually paid for the food in St. Paul and Minneapolis markets, and in other instances less. And they will make it very apparent to the Eastern feeder that he has no easy task to face when, with his much higher priced foods, he undertakes to feed against Western competition.

The range lambs consumed per day of grain 1.68 lbs., of hay .68 lbs. and of ensilage .31 lbs., a total of 2.85 lbs. The home-grown lambs consumed per day of grain 1.96 lbs., of hay 1.09 lbs., and of ensilage .60 lbs., a total of 3.65 lbs. The monthly gains made by the Montana lambs were 9.5 lbs. against 9.3 lbs. made by the home-grown lambs.

The cost of feeding each range lamb was \$1.30, against \$1.42 for each home-grown lamb. Of course the greater age of the home-grown lambs would call for a greater consumption of food to make a given gain. They were, probably, six weeks older than the range lambs. The latter averaged 60.2 lbs, when they entered the experiment and the former 72.5 lbs.

The cost of making 100 lbs. of increase in weight by the range lambs was \$3.67, as against \$4.07 per 100 lbs. with the home-grown lambs. This feature of feeding is peculiar to the west. Years ago it was a generally accepted fact that the actual increase in weight obtained from fattening an animal costs more than could be obtained for the same when sold. But so it does not seem to be in the Mississippi Valley. This, of course, is owing to the bountifulness with which land produces there. Wherever such feeding can judiciously carried on there will always be a substantial profit. In the present instance the profit was \$1.83 on the home grown lambs, as against \$1.71 on the range lambs. The figures just given are, of course, averages for each lamb.

Since the question of greater profit with the home-grown lambs turned upon 11 eir greater weight when the experiment began, it may be asked, would it not be better 12 secure animals as heavy as possible for being fattened? No is the answer that should unhesitatingly be given to this question. In the first place, the der ands of the market must be studied. If animals over large are chosen they will not bring the price when finished. In the second place, the older they are the more food they will require to make a given gain. And in the third place, the gains are slower as a rule as the birth period is receded from. It is a fact that usually more money can be made from feeding lambs than wethers.

Fruit Growers' Association of Ontario

The annual meeting of this organization was held at St. Catharines on December 1st and 2nd, Mr. W. E. Wellington, Toronto, president, in the chair. The meeting opened promptly and the programme was well carried out.

was well carried out. Mr. A. M. Smith, St. Cathavines, read a paper on "Frauds in Fruits at Fairs," which was interesting and humorous. The text was a good one. The professional fruit exhibitor was shown up and condemned. This man, at some trouble and expense, gathers up the finest samples of fruit in his region, and goes the rounds of the shows in a few counties. He turks an "honest" penny thereby. He discourages the local fruit grower and deceives the visitor, who wishes to understand the capabilities of any particular locality. Though he is useful in a way his suppression is advocated by some. Mr. F. G. H. Patteson, Grimsby, followed with a very humorous

Mr. F. G. H. Patteson, Grimsby, followed with a very humorous and streastic paper, "Is Fruit Growing Conducive to Morality?" He showed that fruit growers, nurserymen and commission men seemed to be hable to moral delinquency. Men before engaging in any business connected with fruit should be required to pass an examination to ensure the needed moral status.

ensure the needed moral status. Prof. W. T McCoun, Ottawa, in his "Observations on Russian Fruits at the Central Experimental Farm, 1898," detailed the results from a large number of varieties tried. Many had perished from blight and many had winter-killed. Very few have any real value. It was claimed that the Russian cherries were especially valuable for canning and that the trist sea-ons were very long.

Mr. Burrell made some remarks upon the peach borer and the peach bark heetle. The insect which causes the borer is a blue wasp-like insect. Moths emerge July 20th and later, and hence preventive washes may be put on from July till October. The borer hatches in late summer, and works about twelve months. Hydraulic cement with milk is a good and lasting wash, but requires to be repeated occasionally. Most other washes are soon washed off. Coal tar was spoken of, but was also condemned by some present.

AFTERNOON SESSION.

Mr. Brodie, of Quebec Province, was introduced, and gave a shor sketch of the rise and progress of the Quebec Pomological Society It started at the home of Chas. Gibb. Mr. Carpenter, of Port Dover was called up. Mr. Bunting, of the Niagara District, and E. Morden of Niagara Falls, made brief reports. Prof. C. C. James, Toronto gave a sketch of his investigations and correspondence in regard to the export of fruit pulp. Harrison Watson, the curator of the Imperial Institute, has been prominent in this connection. Much jum comes from Australia in 11-lb. square tins. That from the continent comes in round tins. No water and no sugar is used in preparing the pulp. It is worth £30 per ton in England. Raspberry pulp is principally referred to. Grape pulp is not in demand. G. R. Lewis, of Collingwood, is the only Canadian exporter of pulp so far. Short crops in England have of late made better prices for pulp—as much as £50 per ton has been paid. Black currant pulp is worth about £25 per ton.

In the discussion which followed, Prof. Robertson showed that the pulp would probably give the growers from tc. to 5c. per pound for the green fruit. It would only pay when prices in England were very high.

high. "Prespects for Export of Tender Fruits," by Prof. Robertson, of Ottawa, was the next matter considered. Two and a half million dollars' worth of grapes are imported into England. Pears are largely consumed there. The Canadian exporter must under tand requirements. Fruits must have soundness, appearance, keeping qualities and flavor as good as may be. Three thousand, eight hundred and fitteen packages of fruit were sent by the Dominion Department in 1863, being about one-third of the amount sent in 1897. Scarcity of fruit in Canada accounted for the smaller amount for 1893. California pears of much inferior quality sell at higher prices because they keep longer after reaching the Old Country. Pears in cases containing about 1¼ baskets, realized about 73c. nett. Prices varied from 46c. to \$1 per case. Other shipments realized similar prices. Samples of pears this year were inferior. Three hundred and twenty-four cases of peaches were sent. Some of these brought less than nothing, and others brought a large price. Some were rotten and others were tasteless. California peaches posser a texture which enables them to reach England safely. Our peaches, as yet, do not safely compete. Tomatoes rarely reach England in a state fit for consumption. Apples like the Duche's may be safely sent in cold storage. Grapes arrived in good condition, but did not usually bring paying prices. English men do not like the quality of our grapes.

Trinsatlantic transportation of fruit was next discussed by Professor Robertson. Apples only ripen at a fairly high temperature. The ripening process d velops heat, hence the ipening is accelerated. As soon as possible the barrel of apple ishould go into a cool cellar or cold storage with a temperature lower than 50 degrees. Ventilated cases are safer than barrels. Five steamship lines from Montreal to different poits in Great Britain are fitted for cold storage.

EVENING SESSION.

The president, in his address, reported \$4,147.13 paid in fees, with 4,151 p.il members. Receipts \$6.585 94, and a balance of \$784.96 in hand. He referred to the affihated Hortscultural Societies, which were organized with the idea of giving equal advantages to all members. He gave credit to the Dominion and Local Governments in dealing with the San Jose scale, and hoped that these measures would