

in winter, and for convenience in feeding, is best stored over their pens. The ewe flock will do fairly well if fed well-saved pea straw up to near lambing time, when they should have roots or a light ration of oats daily, and they would be better for this all through the winter, if pea straw is the only fodder available. But the lambs should have clover hay, some sliced roots and oats, or a mixture of oats and bran, to keep them growing. Roots are not a necessity for the ewe flock previous to the lambing season, nor after, if a fairly liberal ration of oats and bran be given them, though roots are very helpful to ewes when nursing their lambs, but should be sparingly fed before lambing, as an excess of roots fed at that period often has an injurious effect upon the lambs they are carrying, causing them to come weak and flabby, lacking in ambition, and subject to goitre, an enlargement of the thyroid glands of the neck or throat, a disease which in some years proves fatal to a considerable percentage of lambs soon after birth. To avoid this trouble, it is well to give the ewes ample room for exercise in winter, and mainly dry feed.

Cost of Raising Steers.

Editor "The Farmer's Advocate":

Some time since there appeared in your paper several articles on the cost of raising a colt. There was a diversified opinion as to its cost. But, after all, it will lead people to think, and, no doubt, will be helpful to the horse-breeders of this country. Now, I think a discussion on the same line in the case of the steer will be just as helpful to the cattle-breeders and feeders throughout Canada. And, although the cost of a steer may vary as much as that of a colt, I take the opportunity of writing you on this important subject.

At the outset, let me say that results will vary much depend on the quality of the animal that is being fed, the care and skill of the feeder, as well as the food given. When is the most profitable time to sell steers for feeders, is perhaps a little hard to determine, and will vary under different conditions. To my mind, well-fed yearlings are as profitable as any. These will cost about \$20, and should sell for at least \$26, showing a profit of \$6, and I don't think that profit can be got at any other time, unless in the finished product. At 4 cents per pound, he may still show a small profit when two years of age, but another six months will run away with it and a little more. So, in my contention, the older the steer the greater the cost of producing a pound of beef, and, therefore, the less the profit. So, to make it a profitable business, we need to have them well-bred, and feed them well in the days of their youth. I have tried to estimate of a steer at different ages, also fed differently, to bring about desired result. I claim it is easy to save six months of a steer's life by having him born in the fall. We also get more milk in one year from a cow freshening in November, December and January than in any other three months of the year. Therefore, there is a gain on the cow's side as well. I don't think we should charge a steer with any depreciation in value of its mother, as in case of mare and colt, so I commence cost with service fee. I don't charge him with anything the first three days of his life, as milk is unfit for use. The manure balances the labor, so take no account of it. I value the different items as follows: New milk, 70 cents per hundred pounds; corn, \$2.00 per ton; clover hay, \$6 per ton; mangels, 6 cents per bushel; oats, 1 1/2 cents per pound; oil cake, 1 1/2 cents per pound; bran, 1 cent per pound. First let me estimate the cost of a feeder at two years of age, born Nov. 1st:

FIRST WINTER.	
Service fee	\$ 1.50
17 Days, new milk, 246 lbs., at 70c. per 100 lbs.	1.71
100 " skim milk, 1,600 lbs., at 20c. per 100 lbs.	3.20
166 " corn, at 1c. per day	1.66
166 " hay, at 1c. per day	1.66
166 " oats, at 1 1/2c. per day	2.07
166 " bran, at 1c. per day	1.66
166 " roots, at 1c. per day11
	\$13.87
Cost at 6 1/2 months—	\$13.87.

FIRST SUMMER.	
Pasture, 5 1/2 months, at \$1.00 per month ..	\$ 5.50
Cost at one year—	\$19.37.

SECOND WINTER.	
181 Days, corn, at 2 cents per day	\$ 3.62
181 " hay, at 2c. per day	3.62
181 " roots, at 1c. per day91
181 " meal, 362 lbs., at 1 1/2c. per lb.	1.52
	\$12.67
Cost at 18 months—	\$32.04.

SECOND SUMMER.	
Pasture, 6 months, at \$1.00 per month	\$ 6.00
Cost at two years old—	\$38.04.

At this age a good grade steer should weigh 1,000 pounds, which, at 4 cents a pound, would bring \$40.00—a profit of only \$2.00. Now we'll take a spring calf, born on May 1st, and see what he cost at two years of age:

FIRST SUMMER.	
Service fee	\$ 1.50
14 Days, new milk, 168 lbs., at 70c. per 100 lbs.	1.17
116 " skim milk, 1,856 lbs., at 20c. per 100 lbs.	3.73
167 " hay or green feed, at 1c. per day	1.67
167 " bran, at 1c. per day	1.67
167 " oats, at 1 1/2c. per day	2.09
Cost at 6 months	\$11.83

FIRST WINTER.	
181 Days, hay, at 1c. per day	\$ 1.81
181 " corn	2.72
181 " roots, at 1c. per day	1.81
181 " meal, at 1 1/2c. per lb.	3.35
	\$ 9.69
Cost at one year old—	\$21.52.

SECOND SUMMER.	
Pasture, six months, at \$1.00 per month ..	\$ 6.00
Cost at 18 months—	\$27.52.

SECOND WINTER.	
181 Days, corn, at 2 1/2c. per day	\$ 4.52
181 " roots, at 1c. per day	1.81
61 " hay, at 3c. per day	1.83
	\$ 8.16
Cost at two years of age—	\$35.68.

THIRD SUMMER.	
Pasture, six months, at \$1.00 per month ..	\$ 6.00
Cost at 2 1/2 years old—	\$41.68.

In most cases this steer will not weigh any more than his two-year-old brother born in November, therefore will show a loss of \$1.68.

Now, according to my calculations, there is little, if any, profit selling feeders at 4 cents per pound; but if farmers would finish them at the same age, at an added cost of about \$15.00, having them weigh 1,300 pounds, and get the finished price of \$5.50, they would realize a profit of \$16.50. I consider a steer finished at two years as profitable as any, although baby-beef may be profitably produced, as well. I will now consider cost of baby-beef, at 18 months of age, born November 1st:

FIRST WINTER.	
Service fee	\$ 1.50
27 Days, new milk, 331 lbs., at 70c. per 100 lbs.	2.33
151 " skim milk, 1,116 lbs., at 20c. per 100 lbs.	2.83
151 " hay, at 1c. per day	1.51
151 " roots and corn, 1c. per day	1.51
151 " oats, at 1 1/2c. per day	1.88
151 " oil cake, at 1/2c. per day56
Cost at six months—	\$12.12.

FIRST SUMMER.	
181 Days, pasture, at \$1.00 per month	\$ 6.00
181 " meal, at 2 1/2c. per day	1.60
	\$10.60
Cost at 12 months—	\$22.72.

SECOND WINTER.	
181 Days, corn, at 2 1/2c. per day	\$ 4.52
181 " hay, at 3c. per day	5.13
181 " roots, at 2c. per day	3.72
181 " meal, at 6c. per day	10.86
181 " oil cake, at 1 1/2c. per day	2.72
	\$27.25
Cost at 18 months—	\$49.97.

A steer thus fed should weigh at least 1,100 pounds, which, at 5 1/2 cents, would bring \$60.50—a profit of \$10.63.

Allow me to say that results such as I have indicated cannot be obtained by using scrub sires, or common sires, either, but only by having high-grade females mated with the very best beef-producing sire, with the progeny of these well fed from day of birth to maturity.

Waterloo Co., Ont. GAVIN BARBOUR.

Name and address, not necessarily for publication, must accompany questions to insure attention in our columns. Dozens of inquiries sent by persons not conforming to our rules are pigeon-holed or thrown into the waste-paper basket every month.

The New Westminster Exhibition.

The barometer by which the success of an exhibition is usually tested is the attendance. At the annual exhibition of New Westminster, this year, the attendance was not merely unprecedented, but phenomenal. To the benign disposition of the weather man was due partly this success, while, on the other hand, the agricultural and horticultural exhibits were in no way inferior to the annuals of previous years. British Columbia's big exhibition has witnessed big things in the past, but this year the rewards were surely much greater.

British Columbia has fertile valleys, beautiful for situation, surrounded by majestic and picturesque mountains, and watered by numerous streams—valleys capable of bearing heavy crops of all kinds of grains, grasses and fruits. Abundant evidence of this was furnished by the different district exhibits. To believe in her agricultural resources, one must see the products, and the New Westminster Exhibition was the place to see and be convinced. The horticultural exhibit might interest many as an exhibition in itself. Fruits of all kinds were garnered from the flats that lie inland and beneath the foothills, while apples and vegetables rolled down from off the slopes of the Kamloop hills and the seasoned clay of the upper drylands.

The spacious agricultural building was neatly decorated. In it was found the district exhibits, one of the unique features of the show. The district of Surrey, the section winning the first agricultural prize last year, was again in first place, winning the Dewar Challenge Shield, the gold medal, and a cash prize of \$500. Richmond district came second, winning a silver medal and \$100, while Langley was third, getting \$300 and a bronze medal. Surrey, the winning district, made the remarkable score of 1,800 points out of a possible 2,000. Other districts that scored next to the winners were Armstrong, Kamloops Mission, and Salmon Arm.

The dairy building was also of special interest. Miss Laura Rose, of Guelph, Ontario, was in complete charge, and gave demonstration lectures each day of the fair. The new fisheries building was of much interest. An appropriate display, and one of an educational value, especially to the people of British Columbia, where fish is one of the chief resources.

THE LIVE STOCK.

This exhibition has long been recognized as the live-stock exhibition of the Pacific Coast, and this year many recognized it as being up to the standard. The equine classes were but fairly represented, the Clydesdale and the Hackney having the greater prominence. Dairy cattle were out strong, the milking breeds presenting a front never before witnessed in British Columbia. The Ness and Hunter Ayrshire herds from Eastern Canada came direct from the Seattle Exposition to receive honors at another fair, and stand the rulings of a different judge. The showing of Holsteins was almost equally as strong.

Clydesdales.—Prof. W. J. Rutherford, from Regina, Saskatchewan, made the awards in all the horse classes. Among the Clydesdales he found his greatest task. But three entries met him when stallions four years old and over were called. O'Neil & Co. owned the winner, Crusoe, a bay, of considerable size, possessing good feet and limbs. Dean Swift, another drafty horse, owned by Pemberton Stock Farm, stood second. Brown Spot, exhibited by Shannon Bros., came third. He is a good horse, having won previously at the same fair when shown as a three-year-old, and was second at the Seattle Exhibition. Some surprises followed later. Marcellus Junior, the grand champion stallion at Seattle, occupied second place, while King's Bounty, a defeated candidate at the former show, occupied the top place when the ribbons for the three-year-olds were given out. The former horse showed in splendid condition, and was owned by O'Neil & Co. T. Mercer, of Markdale, was the owner of King's Bounty. Gertly Guarantee, a horse shown by O'Neil, stood third. In the two-year-olds, Mercer won with Life Guard, a colt in slim condition, but of a sort that calls for strict recognition. He is a brown, and a straight mover. The Guichen Stock Farm, of Port Guichen, followed with Rex, a bay that might require a little more quality. For yearlings, the Pemberton Stock Farm owned first and second. The championship prize rested between Crusoe, the winner in the aged class, and Mercer's two-year-old, the ribbon going to the O'Neil horse.

The Clydesdale female classes were not strongly contested. Pemberton Stock Farm owned Isis, the winning brood mare. She had quality, but for a draft animal lacked size. D. McDonald came second with Carmina. There were five entries in the yield mare class. The Pemberton Farm won first, second and third on Nellie Carriek, Wanda, and Boghead Emma. Shannon Bros. headed the list for filly two years and under three. Their mare, Lily of Grandview, was a winner at Seattle, and showed well here in her class. The Guichen Stock Farm had the winning yearling filly; Me-