

Correspondence.

RELATIVE VALUES OF FOOD.

To the Editor of the CANADIAN BREEDER.

SIR,—Whilst perusing the amended tables of alimentary and manurial values of different sorts of feeding stuffs which appear in your last number, with the greatest interest—it appeared to me that possibly your tables might bear more full examination than they received. I therefore converted all the gains of flesh into the proper proportional gain for a ton of 2,000 lbs., as these of course are tons of 2,240 lbs., and I also converted the manurial values into Canadian currency. I have also calculated the values of the gain in flesh at four cents a pound (a very low estimate), and have finally entered in a fourth column the combined value of each ton to the cattle feeder. Let me also state that my conversions into Canadian currency are only approximations, and not exact to a cent.

Description of Food.	Live Weight Increase per Ton of Food.	Value of In-crease at 4 cts.		Manurial Value.	Total.
		Lb.	\$ c.		
Linseed cake.....	333	13 32	18 75	32 07	39 28
Decorticated cotton seed meal.	307	12 28	27 00	39 28	39 28
Undecorticated cotton do.	250	10 00	15 70	25 70	25 70
Palm-nut meal.....	286	11 44	10 00	21 44	21 44
Peas.....	286	11 44	13 20	24 64	24 64
Indian corn.....	280	11 20	6 00	17 20	17 20
Wheat.....	280	11 20	7 00	18 20	18 20
Malt.....	286	11 44	6 40	17 84	17 84
Barley.....	280	11 20	6 26	17 46	17 46
Oats.....	266	10 64	7 16	17 80	17 80
Shorts.....	266	10 64	13 86	24 50	24 50
Bran.....	222	8 88	14 00	22 88	22 88
Clover hay.....	143	5 72	10 00	15 72	15 72
Meadow do.....	133	5 32	7 00	12 32	12 32
Pea straw.....	125	5 00	4 50	9 50	9 50
Oat do.....	111	4 44	2 75	7 19	7 19
Wheat do.....	95	3 80	2 50	6 30	6 30
Barley do.....	87	3 48	2 50	5 98	5 98
Potatoes.....	33	1 32	1 49	2 81	2 81
Carrots.....	23	0 92	1 00	1 92	1 92
Swedes.....	18	0 72	1 10	1 82	1 82
Mangolds.....	20	0 80	1 20	2 00	2 00
White turnips.....	13	0 52	0 96	1 48	1 48

I think that these figures in many cases will speak for themselves. I have only put in my list those feeds which are more immediately connected with Canadian agriculture, and have omitted those, such as beans, locust beans, rape cake, etc., which I have hitherto not heard much of in this country. Some of these results will, I fancy, considerably astonish the minds of many farmers who are in the habit of thinking that if they feed all their straw and most of their hay they are doing well by their farm. And yet if they enquire a little they will see that on a purchase of one ton of oil-cake at \$30 they can get six per cent. for their money and improve their farms at the same time. Bran also appears to be one of the cheapest feeds possible to use, and we have Professor Brown's experience to guide us as to its great value as a feed, and its manurial value according to the above table is greater than its average cost. If many of the farmers who are content to have their beasts rustling round their straw stack all winter, wasting the straw, half-starving themselves, and making very indifferent manure, would only sell half their straw and buy bran or

cake, and then feed the remaining half of straw chopped with some roots and either bran or cake, how their farms, their cattle and their pockets would benefit! Again, how often is pea straw wasted as "no good," whilst barley, wheat and oat straw is carefully saved, and yet the manurial value of pea straw is considerably greater than that of either of the others. Let us, as one more example, suppose a farmer has one ton of peas, which he is going to sell. This amount would be, roughly speaking, 33 bushels at 60 cents, or a money value of \$20. Let him change his mind and feed them; he saves hauling them to market and realizes \$24 in addition to feeling that his farm is improving—and his cattle being fed the ton of peas gain not only in weight but in appearance and value. Let me end this lengthy letter by quoting my own case as an example of the value of bran. I milk ten cows, and at present most of them have been calved some time, only two being recently calved. They fell off in their milk when put up for winter, and I despaired of getting a proper flow again. I tried potatoes, corn meal and barley meal, but without conspicuous success. I have during the last four days fed them 50 pounds of bran per day between them, and the milk has increased four gallons per day. Fifty pounds of bran costs me 30 cents, or 7½ cents per gallon, in addition to the enhanced value of the manure, and the cows appear to be still improving. I hope you will continue to constantly advocate more produce being fed on the farm it is grown on, even if feeding stuff is not purchased.

I am, yours, etc.,
G. B.

DRAUGHT HORSES FOR TEXAS.

To the Editor of the CANADIAN BREEDER.

SIR,—Some time ago, I noticed in the CANADIAN BREEDER an enquiry from some English breeders as to the best port in America to land draught horses. I know nothing of the merits of other ports, but I believe that the man who takes the field first in this business in our great State of Texas with a suitable kind of draught stock, will reap a rich harvest. I am a horse-breeder on a small scale, and am familiar with all classes of Texas horses. I do not believe in crossing our native mares with heavy-draught horses, but as I am in a hopeless minority, I must yield, and would like to see a compromise made on something more suitable than Percherons, which are now all the rage in Texas. I believe that our native mares should be bred to thoroughbreds, and after two or three crosses for horse (stamina), then we might successfully breed for what our breeders are getting from Percherons in Texas mares, *beef*. I have seen half bred Percherons sell for big prices, but I imagine the breeders never made a second sale to the same person. The few crosses I have seen from the English draught horses are far superior in stamina to those crossed from French horses. The conformation and temperament of the English horse and the Texan native are far more harmonious than the French and Texan, and the result is a more evenly balanced horse—one better calculated to raise the horses of Texas in the estimation of the horsemen of the world. As a horseman who expects to die a Texas horse-breeder, and with a jealous regard for the reputation of the horse product of our grand State, I will be pleased to see the English draught horse secure a firm footing here.

E. S. HUGHES.

Galveston, Texas, Dec. 12th. 1885.

THE CIRCUMSTANCES AND CONDITIONS INFLUENCING THE SEX OF OFFSPRING.

MR. J. SANDERS SPENCER'S PAPER ON THIS SUBJECT.

To the Editor of the CANADIAN BREEDER.

It was with considerable diffidence that I accepted the courteous invitation to introduce this most interesting subject of controlling the sex of our live stock. This hesitation did not arise from a feeling that the discussion of this question was not one which would prove of interest, and possibly of profit, to the immense number now engaged in the breeding and rearing of stock; but rather from a conviction that much of that which I should advance must of necessity be of a theoretical nature, whilst little would be the result of observation and experiment in this country, and comparatively nothing for which I could personally vouch; as coming within my own experience. My reluctance was eventually overcome by the assurance that such difficulties must naturally arise on the introduction of any subject, and that my pleasant duty would chiefly consist in introducing the question, so that a discussion might arise. Before proceeding further, I should like to express my sincere thanks to those gentlemen, not only in this country, but in the States, who by hints, and by the loan and gifts of books, have kindly assisted me in the attempt to study this subject, which is considered by some few persons as a new idea. So far from this being the fact, it can be most conclusively proved that the law, or laws, by which the sex could be controlled in human beings, if not in animals, have engaged the attention of physicians and others for hundreds of years. It may give some little idea of the keen interest which has been taken in the subject, when I state that a list has been compiled of over a thousand writers who have both studied the question, and published their ideas upon it. Still I feel bound to confess that all this labor and research appears to have been comparatively barren, so far as the elucidation of any fairly certain law or laws bearing on the subject.

Of theories there have been any number, and many of the propounders of these have been enabled, to their own complete satisfaction, to fortify their arguments with so-called facts, which, without much apparent trouble, have been proved by other theorists to be capable of supporting diametrically opposite conclusions. In this list of all those we find the names of Aristotle, Plato, Socrates, Buffon, Cuvier, Darwin and Spencer (the last-named is not the compiler of these few notes). Indeed, so great has been the enthusiasm of some of the writers on this subject that one is almost led to think that their desire was as much to prove the correctness of their theories as to enlighten their readers on the question. Lest I, too, should become an enthusiast, and fall into the same error, I will rather endeavor to describe some few of the theories, and the general grounds on which these were supported, than to bring forward any ideas of my own.

In the consideration of the question of controlling the sex of the offspring of our animals, we are placed at a disadvantage, as most of our scientists have taken the somewhat higher subject of controlling the sex of the human species, yet we may perhaps discover many points of similarity in the supposed laws which will apply equally to the human as to the animal world. I am perhaps wrong in using the word supposed, as there appears to be a consensus of opinion amongst those who have given the most thought and attention to the subject, that nature has not in this, any more than in any other of her works, left to chance the determination of sex. But what I would wish to convey is, that though there doubtless exist certain fundamental rules or laws which regulate the sex of