

15th Sept. Flowers and Cut Blooms will be received up to 10 o'clock A. M., on the 16th, after which positively nothing will be received.

5th.—Fruit and other Articles for Exhibition, sent to the care of the Secretary, at Wolfville, and properly labelled and named, will be received and arranged, and exhibited by the Council, and every care will be taken to show such articles to the best advantage; the freight must be pre-paid on all parcels sent, and the Association will undertake to re-pack, direct, and send to the Station all articles so sent.

6th.—All persons wishing to become members of the Association must send in their names to the Secretary, with the fee for membership (\$2) and all members who have not paid their annual dues, must do so on or before the first day of the Exhibition in order to entitle them to the privilege of members thereat.

7th.—Any persons wishing space to exhibit articles not called for in the foregoing List, must address the Secretary at least ten days previous to the Exhibition, stating nature of the exhibit and space required. The Secretary particularly requests that intending competitors for Collections of Fruit, Vegetables and Plants, will make their entries by letter to his address, Port Williams, one week previous to the Exhibition, so that ample space may be secured.

8th.—The Exhibition will open at one o'clock, P. M., on the first day, and close at 6 P.M.; open at 10 A. M., the second day, and close at 3 P. M.

9th.—Dozens of Apples and Pears for competition will be exhibited as usual on the tables; but collections and all other Fruits must be exhibited on plates or dishes, which, if possible, had better all be white. A dish of Peaches, Nectarines, or Apricots to consist of not less than three fruits; a dish of Grapes, not less than two bunches; a dish of Plums, of twelve fruits.

Special Railway Arrangements will be made, of which due notice will be given.

By Order of the Council,
C. C. HAMILTON, *President.*
R. W. STARR, *Secretary.*

RELATIVE VALUE OF CATTLE-BOX MANURE AND FARM-YARD MANURE.

Having been informed that, amongst the minor contributions invited for the journal of the society, any analysis of matters with which farmers have to deal would be acceptable, I send three analyses of manures which I have had made at various times by Professor Way and Dr. Voelcker. Nos. 1 and 2 were made some years ago.

No. 1 is a comparative analysis I was desirous of obtaining to test the relative values of *farm-yard* manure and manure from the *cattle-boxes*. My object having been a fair comparison of the value of manure made under nearly similar circumstances in other respects, I obtained a sample of manure from an open yard in which animals were being fattened, rather than from a mere stock-yard for young beasts; and the other sample was taken from my boxes.

No. 2 is an analysis of a sample of manure taken from my boxes, made at a subsequent period by Professor Way. The small proportion of ready-formed ammonia would operate unfavorably on the minds of farmers who have yet to learn that ammonia is the result of fermentation and decomposition, the prevention of which is a main object of the box system of feeding.

No. 3 is analysis, made by Dr. Voelcker, of manure taken at another period, soon after it had been removed from the same boxes, and heaped. Those who have not previously inspected this system of feeding, and have had an opportunity of seeing at one moment the boxes full of the accumulation of some three or four months manure, invariably express their surprise at the sweetness of the range of buildings; and, in a few minutes afterwards, on setting the forks to work to empty the boxes, still greater surprise at the almost instantaneous evolution of volatile gases on the admission of air to the dense compound below.

No. 1.—Analysis of Box Manure and Yard Manure. By Professor Way.

	Box Manure.	Farm yard Manure.
Water, per cent.....	71.4	71.8
100 parts dried at 75 to 80 Fahr. gave of ammonia..	2.73	1.7
Matters soluble in water, organic and inorganic.....	10.7	4.6
Which left on incineration a fixed residue of.....	2.18	2.78
This fixed residue consisted of—		
Silica.....	Not determined.	
Phosphoric acid.....	0.30	0.26
Alkalies, potash and soda....	2.00	0.80

For the sake of showing at a glance the difference between the two manures, the results are given under another arrangement, as follows:

	Box Manure.	Farm yard Manure.
Water, per cent.....	71.4	71.8
100 parts dried at 75 to 80 Fahr.—		
Nitrogen equivalent to ammonia.....	2.37	1.7
Organic matter removable by water.....	6.42	1.82
Inorganic do. consisting of—		
Phosphoric acid.....	0.30	0.26
Alkalies.....	2.00	0.80
Silica, a considerable quantity, not determined....	Lime and Silica	
Lime, a trace.....	Not determined.	

No. 2.—Analysis of Box Manure from C. Lawrence, Esq. By Professor Way.

100 parts of the manure contained—	
Water.....	72.33
Organic matter.....	21.80
Mineral matter or ash.....	5.87
	100.00

An approximative estimation was made of the relation between the straw and the real dung, (both being dry) and the result was as follows:

	Per cent.
Straw.....	41
Dung.....	59

The following is the analysis of the ash:

Ash of Box Manure.

Soluble Silica.....	27.90
Phosphoric acid.....	5.11
Sulphuric acid.....	1.11
Carbonic acid.....	0.95
Lime.....	14.41
Magnesia.....	2.40
Peroxyd of iron and alumina.....	7.81
Potash.....	11.70
Soda.....	2.05
Chloride of potassium.....	None
Chloride of sodium.....	3.82
Sand and clay.....	21.80
	99.15

Examined for nitrogen, the manure gave—

1st experiment...0.47	} per cent. on the manure in its natural state.
2d experiment....0.45	
Mean.....0.46	

This last (0.46) would eventually produce 0.56 per cent of ammonia.

The ammonia actually existing as such in the manure was found to .02 per cent. The following will be the ingredients of 100 parts of the manure:

Water.....	72.330
Organic matter.....	21.800
Silica.....	1.837
Phosphoric acid.....	2.299
Sulphuric acid.....	0.665
Lime.....	8.45
Magnesia.....	1.40
Peroxyd of iron and alumina.....	4.58
Potash.....	6.92
Soda.....	1.20
Chloride of potassium.....	None
Chloride of sodium.....	2.24
Sand and clay.....	1.279
Carbonic acid.....	0.55
	99.944

Nitrogen in the original matter...	.460
Equal to ammonia.....	.560

The sand and clay, although in large proportion in the ash, only exist to the extent of 1½ per cent in the manure itself. The way in which this impurity is introduced will need no explanation.

A striking fact is the small portion of ready-formed ammonia in the manure, only two parts of 56 being in that condition. This circumstance may be taken as conclusive evidence of the very small extent to which fermentation of the material proceeds in well-constructed boxes.

No. 3.—Analysis of sample of manure from Mr. Lawrence. By Professor Voelcker.

	Natural	Dry.
	Per cent.	Per cent.
Water.....	66.426	
*Organic matter.....	26.806	82.315
Ash.....	(5.758)	(10.682)
	Natural.	Dry.
	Per cent.	Per cent.
Containing—		
Insoluble silicious matter...	1.796	5.515
Phosphates.....	2.313	7.102
Equal to phosphoric acid..	(1.001)	3.416)