

CONNECTICUT AGRICULTURAL EXPERIMENT STATION.

Bulletin No. 55, April 5, 1881.

543 Night soil. Received March 15th, from Wm. Burr, Fairfield.

This sample represents the material gathered from village privies during cold weather in the spring season. For comparison the analysis of a sample from a large quantity taken in the village of New Canaan in 1859 is given.

CHEMICAL ANALYSES OF NIGHT SOIL.

	Fairfield New Canaan 543	1859
Water.....	53.06	66.74
Organic Matter*.....	11.62	17.68
Sand, soil and coal ashes	29.76	8.59
Potash.....	.21	.65
Soda,.....	.26	
Lime.....	.82	2.27
Magnesia.....	.60	
Iron oxide and alumina	1.79	2.69
Phosphoric acid.....	1.41	1.38
Sulphuric acid.....	.39	
Chlorine.....	.08	
	<u>100.00</u>	<u>100.00</u>
*With Nitrogen.....	.74	.87

No closer agreement could be expected in two samples of this material than is seen in the above analyses. The larger quantity of lime found in the New Canaan sample might have come from a sprinkling of oyster shells or the like. The large ad-

mixture of sand, soil and coal ashes is what can hardly be avoided.

The most valuable fertilizing elements of the night soil, viz.: nitrogen, phosphoric acid and potash may be bought in other forms for 20 cts., 9 cts. and 7 cts. per pound respectively in the fertilizer market. The highest commercial value of these ingredients in 100 lbs. of night soil, 543, is as follows:—

Nitrogen,	0.74 x 22½	cts. = 16.6	cts
Potash,.....	0.21 x 7	" = 1.5	"
Phos. acid....	1.41 x 9	" = 12.7	"

Total.....29.8

The other substances present do not materially add to the value, and the commercial worth of the night soil is not more than 30 cts. per 100 lbs., or \$6.00 per ton, on the most favorable reckoning.

MAIZE ENSILAGE.

Sample sent by B. C. Platt of Suffield.

ANALYSIS.

	Fresh.	Water-free.
Water,.....	82.09	
Ash,.....	1.04	5.84
Albuminoids.....	1.27	7.07
Crude fiber,.....	5.76	32.15
Free acid*.....	0.66	3.69
Nitrogen-free extract...	8.84	49.34
Fat,.....	0.34	1.91
	<u>100.00</u>	<u>100.00</u>

*Calculated as acetic acid.

S. W. JOHNSON, Director.