		Carbon.	Nitrogen.	Ammonia equivalnt thereto.
Indian corn,	grain,	54.30	1.65	2.00
Do.	fodder,	*	*	*
Wheat,	grain,	46.35	2.5	3.03
Do.	straw,	48.48	0.4	0.48
Rye,	grain,	46.00	2.0	.....
Do	straw,	49.88	0.36	.....
Oats,	grain,	51.00	1.8	.....
Do.	straw,	50.	0.3	.....
Tobacco,	leaves and stalks,	.....	3.36	4.06
Red clover,	hay,	47.	1.70	2.06
Potatoes,	tubers,	43.50	1.5	1.82
	tops,	45.	.55	.67

* Not determined.

2. *The inorganic or mineral constituents of plants.*

Of the numerous mineral substances in the earth, only the following ten are believed to be essential constituents of plants, viz:

Silica,	Potash,
Phosphoric acid,	Soda,
Sulphuric acid,	Lime,
Carbonic acid,	Magnesia,
Chlorine,	Oxide of iron.

Carbonic acid was enumerated as one of the constituents of the atmosphere, but it also is a constituent of many minerals, such as limestone and other carbonates. It is found in the ashes of plants, but is considered to have been formed therein during the combustion of the vegetable matters.

Alumina and oxide of manganese have been found very rarely in the ashes of plants, and then in such minute proportions that their presence is considered accidental or unimportant.

All of the above have been shown to exist in our minerals, rocks, and soils.

The proportions of them vary not only in each kind, but also in the different parts of the same plant, and during the different periods of its growth. We find in general that potash, lime, silica, phosphoric, and carbonic acid constitute from three-fourths to nine-tenths of plant ash. The remainder usually consists in sulphuric acid, soda, magnesia, and oxide of iron, and chlorine in small proportions.

From the numerous analyses of the ashes of plants recorded by eminent chemists, I select the following, which form the