

TABLE 6. CHEMICAL ANALYSES OF SEMEN.

Items	Per cent by weight	
	Normal	Abnormal
Total solids, dried at 105° C. ....	2.38	3.49
Ash .....	0.78	0.60
Total nitrogen, (N) .....	0.241	0.366
Total phosphorus (P) .....	0.017	0.028
Per cent ash in total solids.....	32.8	17.2
Per cent phosphorus in total solids .....	0.7	0.8
Per cent nitrogen in total solids .....	9.9	9.5

The proportion of total solids is distinctly larger in the abnormal semen than in the normal; the proportion of ash in the total solids of the abnormal semen, however, is markedly less than in the normal. The proportions of nitrogen and phosphorus in the total solids are sensibly the same in both.

#### SUMMARY.

The average hydrogen ion concentration of normal horse semen was pH 7.31.

The average hydrogen ion concentration of horse semen in which the spermatozoa were inactive was pH 7.58.

The hydrogen ion concentration of horse semen is not readily altered.

It has been shown that without extensive equipment electrometric measurements of hydrogen ion concentrations afford a fair degree of accuracy.