

CHAPTER II.

COMPOSITION AND CALORIFIC VALUE OF PEAT.

A drained peat bog still contains large quantities of water and, as a rule, only 10 to 15% of dry peat substance. The raw peat is therefore air dried and contains after such drying, if properly conducted, from 15 to 25% moisture. In many cases a higher content of moisture is found, but if the peat is to be used as a fuel for ordinary purposes the moisture should not be allowed to exceed a limit of 25-30%, especially if used for domestic purposes.

The following table* published by Prof. Klason, of Stockholm, Sweden, gives the average composition of different kinds of fuel, together with the mean calorific value of the absolutely dry and ash free fuel and the average percentage of moisture in its air dried state.

Composition.	Wood.	Peat.	Lignite.	Swedish Coal.	English Steam Coal.
Carbon.....	52.0	58.0	66.0	78.0	81.0
Hydrogen.....	6.2	5.7	4.6	5.1	5.2
Oxygen.....	41.7	35.0	28.0	14.8	11.5
Sulphur.....				0.8	1.0
Nitrogen.....	0.4	1.2	1.0	1.3	1.3
Calories†.....	4900	5700	6000	7500	8000
Moisture.....	20.0	22.0	25.0	13.5	7.6

The content of ash is variable and is considered low if less than 5%, and high if more than 8% of an absolutely dry sample.

* Teknisk Tidskrift, 1896.

† 1 cal.=the heat required to raise the temperature of 1 kg. (2.2 lbs.) of water 1° Centigrade (1.8° F.)