

ECONOMIC IMPORTANCE

is used as food.

Cladonia alpinaria + Saxanigera + Cetraria in the north region. The lichen Cladonia is used as food in the north region of Europe. On the crustate lichen Leclerchia excellentia. It can never be found in the ground and population are considered as a food.

(2) Used as medicine:

- i) The lichen Leclerchia excellentia is used to treat lung disease.
 - ii) Rabies is cured by taking powdered Leclerchia + black pepper + warm milk (in the form of preparation). [This lichen was named by Linnaeus in 1753 as Lichen Cornu or dog lichen].
 - iii) Many of the lichens are antibiotic in nature. Gram -ve bacteria are resistant to all lichen acids but gram -ve bacteria of tuberculosis bacteria are inhibited by protolichenic acid, uric acid etc. [Utric acid is widely used in European countries as a chemotherapeutic agent for external application].
- (3) Used as soil formation:—

Lichens happen to be the first plants that look part in active soil formation. It is thought that delimitated lichen thallus break the soil or rocks as they expand or contract when wet or dry. It is also believed that lichen acid in an integrated way by chelation (a process that removes Ca, Mg and other minerals from crystals).

(4) Used for the extracting dyes:—

The only important use is in the green dyes as in the preparation of litmus paper.

(5) Extracts of Evernia, Parmelia & Ramalina:— They contain various essential oils that are extensively used as soap scents.

(6) In Europe — it is reported that some of the lichens causing the etching of the window glasses.

(7) Growth of lichens as an indicator of climate:—

[Slow growth of lichens can be made use of for dating, for instance glacial moraines, lava flows, ancient human, monument etc. Selected sps of lichens can possibly be used to estimate mean sulphur dioxide levels (Hawksworth 1971, Gilbert 1975)]

(8) Lichen as Pollution Indicator:—

The lichens have been found to be useful and permanent indicators for environment pollution (Hawksworth & Rose 1976). *Lecanora* is found only in Urban areas where the air is polluted due to industries.

(9) Useful in tanning, brewing & distilling:—

In parts of Russia & Siberia, lichens are used in the brewing of beer. *Cladonia rangiferina*, *Uznea florida* & *Ramalina flaxinea* have been used in the prepn of alcohol.