

CHAPTER-3

COLLECTION OF MUDS



ALLEPY



DWARKA



VADODARA



3.0 Collection of muds

India has a wide range of soils of different composition but we selected 4 types of Indian soils : 2 soil samples which are presently used therapeutically by Shri Krishna Ayurved Centre in Allepy, Kerala, 1 soil sample from Dwarka (Namely Gopichandan) which is traditionally used, and 1 soil sample from Vadodara, the place we live. It is professed in our '*shastras*' that our body is composed of mud where we live, so to test its therapeutic activity, we selected this sample.

It has been observed that in Vadodara, Surat, Bharuch, Bhavanagar districts, soils from 120 cms below the earth's surface, is deep black soil which possesses a high moisture retention capacity. They contain abundant iron, fairly high quantities of lime, magnesia and alumina. They are poor in humus, nitrogen and phosphorus but not in potash. The smectite group of clay minerals dominate these soils (Kolay AK 1991).

Gopi Talav is a holy place on the way to Bet Dwarka from Dwarka, in Gujarat. It is said that all the sixteen thousand "*Ranis*" of Lord Shri Krishna, (who were captive of other kings) were released and were escorted by Arjun, got drowned in this pond. From then on, the soil of the pond is called "*Gopi Chandan*". This soil is traditionally utilized for treatment of acne and prickly heat. It is light in colour and very rich in Calcium carbonate and sodium chloride (due to salinity of Arabian Sea nearby). Calcium is the most important cation adsorbed by the clay (Kolay AK 1991).

In Kerala, there are two types of alluvium: coastal alluvium and inland alluvium in depressional lands. In central Kerala, the width of coastal alluvium tracts increases, whereas in the north and south, they are comparatively narrow. Excessive amounts of organic matter accumulate in the low lying areas, and decompose in the humid climate of Kerala to form Peaty soils, which are locally known as Kari soils. They have been found in taluka of Allapuzha,(Where Shri Krishna Ayurved centre is located). They remain submerged in water during the rainy season after which they are puddled, and paddy is transplanted on these heavy black coloured highly acidic soils,

containing 10-40% organic matter. The soil pH may be as low as 4.0 which is due to anaerobic decomposition of organic matter. Sometimes soil contains ferrous and aluminium sulphate. Soluble salts accumulate in kari areas. They are relatively poor in phosphorus (Kolay AK 1991).

Collection

2 mud samples, Black and Brown in colour, (150 kg each) were transported in sealed plastic bags by Shri Krishna Ayurved Centre (Kerala). It was opened, spread on a clean sheet and allowed to dry in sun for 10-12 days in a clean environment. It was then milled at home by stone pestle, sieved through 40# (ASTM) sieve and stored in tightly closed large plastic containers. Mud from Dwarka was obtained in dry condition and that from Vadodara was slightly wet. Both these muds were treated in the same manner like Kerala muds. All the muds were collected from 3 to 4 ft. beneath the surface from non-agriculture land, assuring its freedom from litter, pesticides, fertilizer, heavy metal pollutants and eggs of worms.

Hence forth in the text , black soil collected from Kerala will be named "Kerala Black" and that brown coloured as "Kerala Brown" , the one collected from Dwarka as "Dwarka" and the one collected from Vadodara as "Vadodara".