**Rice plant**

Rice plant is a member of the grass family which belongs to the tribe *Oryzae* and the genus Oryza. There are 25 recorganized species in the genus *Oryza* including, 23 wild species and two well-known cultivated species *Oryza sativa* and *Oryza glaberrima*. The Asian *O. sativa* is the post popularize cultivated variety among the farmers in all around the world when compared with the African *Oryza glaberrima*. The *Oryza sativa indica* and the *Oryza sativa japonica* are the main two rice varieties widely cultivated in the world which are belong to the species *Oryza sativa*. In generally the origin of Oryza sativa is identified as river valleys of Mekon river, Yangtze river and the Delta of Niger river is identified as the origin of *Oryza glaberrima* (Tripathi et al., 2011; Yoshida, 1981).

**Botanical Classification**

Kingdom – Plantae

Division - Magnoliophyta

Class - Liliopsida

Order - Poales

Family - Gramineae or Poaceae

Tribe - Oryzeae

Genus - Oryza

Species - sativa (Tripathi et al., 2011)

The genus *Oryza* contains basically 12 chromosomes. The *Oryza sativa* and Oryza *glaberrima* are diploids which are rich with 24 chromosomes. when compare the two rice species *Oryza sativa* and *Oryza glaberrima* the seed dormancy is high in *Oryza glaberrima.* Although *Oryza sativa* is cultivated as annual crop in botanically it is a perennial plant whereas the *Oryza glaberrima* is botanically and agronomically both act as an annual crop (OECD, 1999).

The duration of the rice starts from the germination of the seedlings and ends with the maturity of the plants which ranges from 3-6 months according to the variety and the environmental condition of the area where it is grown. The rice plant completes 3 growth phases sequentially including vegitattive phase, reproduction phase, ripening phase. The vegetative phase starts from the emergence of the seedlings at the nursery and completes the tillering and stem elongation stages. The vegitative phase phase ends at the panical initiation stage and the reproduction phase started. In the reproduction phase the plant grow through the booting, heading stages and finally reaches the flowering stage at the end. The ripening stage starts at the flowering and passes the milking stage, dough grain stage and enter to the mature grain stage at last (Tripathi et al., 2011; Yoshida, 1981).

The Rice (*Oryza sativa* L.) is among the world wide cultivated cereal crops in the world which is next to the wheat

Oryza sativa was first cultivated in south-east Asia, India and China between 8 000 and 15 000 years ago (OECD 1999; Normile 2004).

Rice is also grown from sea level to 3 000 m and in both temperate and tropical climates. A variety of water regimes are used, including unsubmerged upland rice (10% of total cultivation), moderately submerged lowland rice (irrigated, 45%, or rain-fed, 30%), and submerged rice (up to six m of water, 11%, or floating, 4%). Rice can grow in a wide range of soil types as well, including saline, alkaline and acid-sulfur soils (Takahashi 1984b; Oka 1988; Ahn et al. 1992; OECD 1999

The genus Oryza belongs to the tribe Oryzeae of the family Poaceae (http://www.ncbi.nlm.nih.gov/Taxonomy/Browser/wwwtax.cgi). There are 12 genera within the Oryzeae tribe (Vaughan 1994). The genus Oryza contains approximately 22 species of which 20 are wild species and two, O. sativa and O. glaberrima, are cultivated (Vaughan 1994).

O. sativa is the most widely grown of the two cultivated species. It is grown worldwide, including in Asian, North and South American, European Union, Middle Eastern and African countries. O. glaberrima however, is grown solely in West African countries. O. sativa and glaberrima-sativa hybrids are replacing O. glaberrima in many parts of Africa due to higher yields (Linares 2002)

The Biology and Ecology of Rice ( Oryza sativa L .) in Australia

Rice (Oryza sativa L.) is grown successfully in regions having the necessary warmth and abundant moisture favourable to its growth, be it under lowland or upland condition. It is one of the most important and indispensable caloric cereal food crop in Ghana. Beyond providing sustenance through growing, earning income and consuming, rice plays an integral, but important cultural role in many rural communities of Ghana

“ DIGANG ” RICE ( Oryza sativa L .) UNDER UPLAND CONDITION OF BAWKU , UPPER EAST REGION , GHANA