TECHNICAL SHEET

Sorghum cultivation in the valley (Sorghum bicolor): Variety Sepon 82

Presentation of the sorghum

A monocotyledonous plant species of the Poaceae family, sorghum is an annual herbaceous plant of about 3 meters high. It is native to Africa and is cultivated for its grains also called sorghum. African sorghum varieties are characterized by a large size, which makes them susceptible to lodging, with spaced leaves that do not favor the development of cryptogamic diseases (Diawaara, 2003). A particularity of African sorghum is their high sensitivity to photoperiod (Diawaara, 2003). Thus, the length of their cycle varies with the sowing date (Diawaara, 2003). The same sorghum variety can have a cycle of 90 to 170 days depending on the sowing date (VAKSMANN et al., 1996 cited by Diawaara, 2003).

Sorghum (which, incidentally, is one of the only important agricultural species to have its origins in the African continent) ranks 5th among the world's food grains in terms of annual production quantities, coming after maize, rice, wheat, and barley (Van Damme, 2013). But the thing is, sorghum is in many intertropical regions and especially in Africa, a primary crop in family farming in semi-arid and sub-humid areas where it plays a role as a subsistence food crop (Van Damme, 2013). Its hardiness, moderate water requirements, and drought resistance of the local varieties used are essential qualities for farmers with modest technical and financial means (Van Damme, 2013). Its uses for human food are diverse (flours, semolinas, porridges...but also 'beer' and other (non)alcoholic drinks) (Van Damme, 2013). Indeed, sorghum is the basis for popular fermented drinks, such as dolo or tô, in some tropical countries (Van Damme, 2013). Alternative food uses are diversifying: use in baking, rolled products, new flour and drinks, etc. (Van Damme, 2013). Considered a gluten-free grain, sorghum also has nutritional benefits for those with intolerance to these proteins (Van Damme, 2013).

According to Chantereau and *al.* (2013), there are several types of sorghum: the bicolor species, wild sorghum, forage sorghum, etc.

Sorghum plant

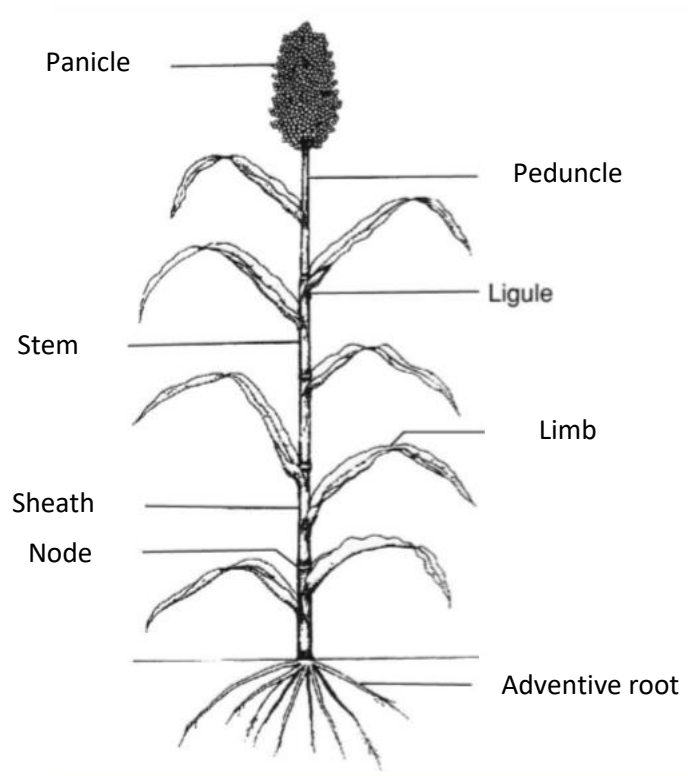

Figure 1 : diagram of a sorghum plant (source : Chantereau and *al.*, 2013)

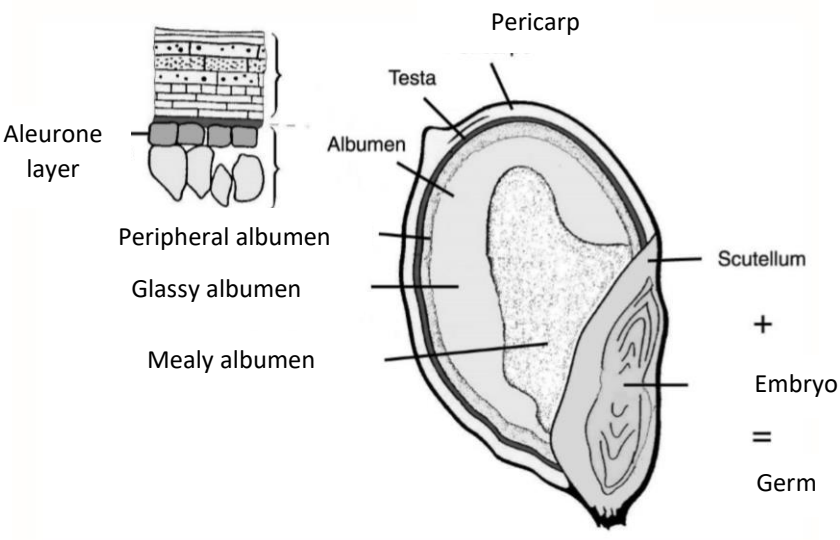

Figure 2 : schematic section of a sorghum seed (source : Miche, 1980 cited by Chantereau and *al.*, 2013)

Different stages of development of sorghum

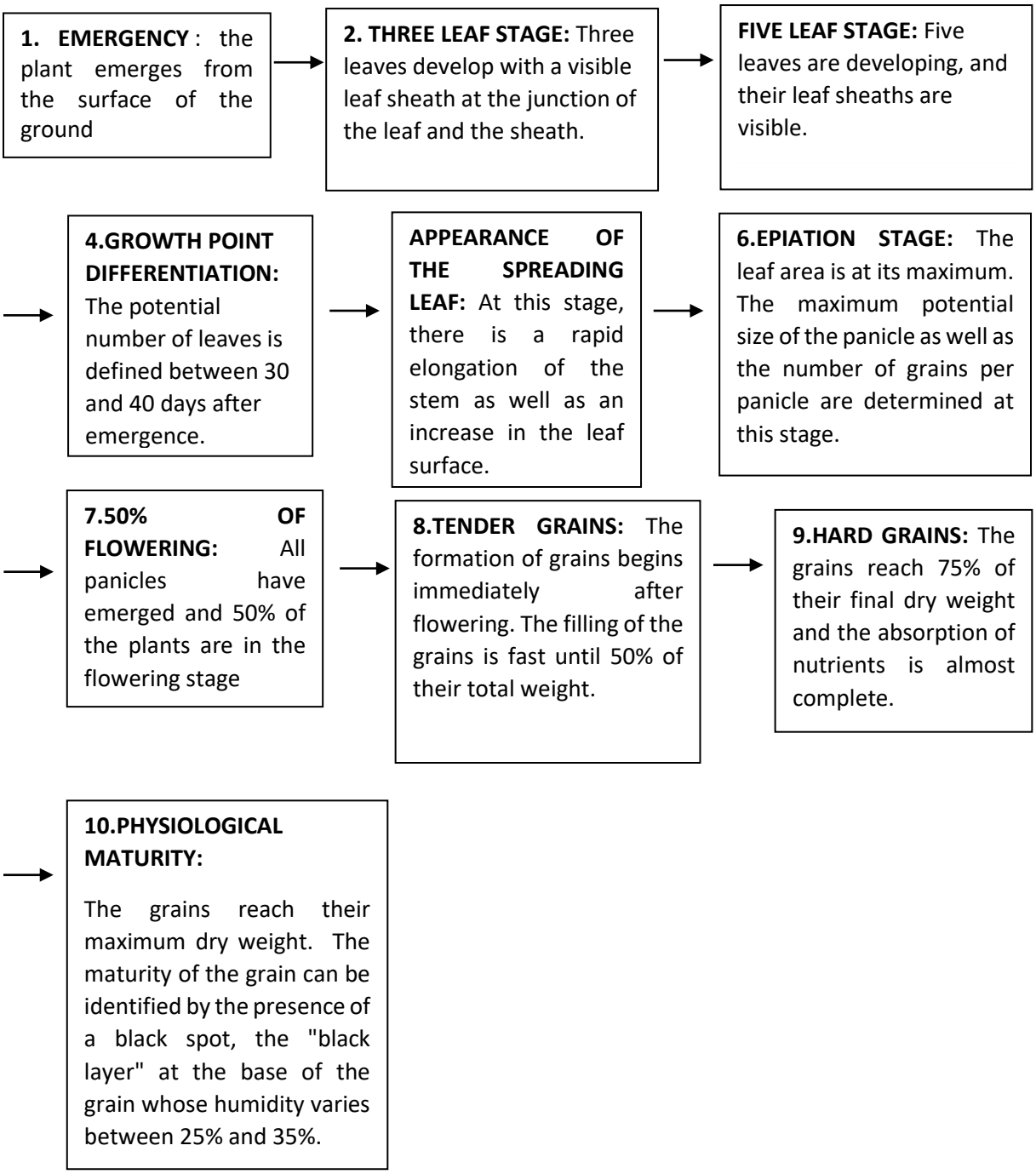

Figure 3 : life cycle of sorghum (source : Kansas State University Agricultural Experiment Station and Cooperative Extension Service, 2016)

Characteristics of the technology

- Field of application: cultivation of Sorghum SEPON 82 (ICRISAT/INDE) in the Preferential Growing Area (rainfall in mm) 400 to 700
- Sowing-maturity cycle Intermediate 85-95 d

- Grain yield (in T/ha) 2.5-4 T/ha in station0.5-2.5 T/ha in farming area
- Hulling yield 64%.
- Resistance to enemies Slightly susceptible to elongated charcoal; susceptible to grain moulds and ear bugs.
- Weight of 1,000 grains (g) 12-20
- Plant size (m) 1,5-1,7
- Compact Panicles
- Elliptical and semi-compact shape
- Length (cm) 25
- Width (cm) 7
- Creamy white grain
- Good fodder quality, high yield; and very good in terms of animal feed quality
- Possibility of 2 harvests during the dry season from October to May.
- Translated with www.DeepL.com/Translator (free version)

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Regional Center of Excellency on Dry Cerals and Associated Crops ; HOST INSTITUTION: CENTRE D'ETUDES RÉGIONAL POUR L'AMÉLIORATION DE L'ADAPTATION À LA SECHERESSE (CERAAS) ; Host country: Senegal; Coordinator: Ndjido KANE; Email: ndjido.Kane@isra.sn; ndjido.Kane@isra.sn; Telephone: +221 777232019 / +221 339514693