WEED CLASSIFICATION

Life cycle or history

- Annuals and perennials
- Annuals are those that complete their life cycles in one or two growing seasons but in one calendar year
- Such weeds die off during the dry season after completing their life cycles e.g. *Amaranthus spinosus, Euphorbia heterophylla, Rottbeollia conchinchinensis*

- **Some of the characteristics of annual weeds include:**
  1. **An ability to produce large quantities of seeds e.g. *Amaranthus spinosus***
  2. **A tendency to occur in high densities**
  3. **Efficient methods of seed dispersal**
  4. **Seed dormancy that prevents all seeds produced by the weed in one year from germinating at once**

- **Perennial weeds are those that will stay alive for more than one calendar year inspite of producing seeds in the growing season preceding a dry season**
- **Perennial weeds may or may not produce seeds at any stage in their growth cycle, but they have the capacity to survive the dry season with the aid of specialized perennating structures.**
- **Examples; *Cynodon dactylon, Cyperus esculentus, Chromolaena odorata***

- There are gray areas in the division between annuals and perennials in the tropics
- Some weeds that are annuals may behave like perennials if rainfall is adequate and evenly distributed throughout the year.
- E.g. *Eluesine indica* which usually roots at the lower nodes will die off at the end of the rains. But given enough moisture (irrigation), this weed will behave like a perennial.
- Moisture and its distribution imposes severe tests on which weeds are true annuals and which ones will behave as perennials.
- This type of classification is commonly used by farmers and those involved in farming.

Habitat

- Classification of weeds on the basis of where they are found, is widely used by agriculturists
- This method of classification groups weeds into **terrestrial** (upland) and **aquatic**
- Terrestrial weeds are further grouped into **AGRESTAL** – weeds of arable or cultivated crops and **RUDERAL** – weeds of disturbed non-crop areas such as rubbish heaps, land fills, paths and roads

- **Aquatic weeds are those that preferentially grow in water-logged conditions e.g. *Cyperus difformis, Eichhornia crassipes, Salvinia molesta***

Growth habit

- Autotrophic or parasitic
- Weeds that live as independent organisms and manufacture their own food through photosynthesis are known as autotrophs
- Those weeds that grow on living tissues of other plants and derive part or all of their food, water and mineral needs from the plant they grow on (host) are known as parasitic w

Degree of undesirability

- **Noxiousness is the measure of both the undesirability of a weed and the difficulties in controlling it**
- **Ephemeral weeds are comparatively easy to control such as *Ageratum conyzoides***
- **Noxious weeds include; *Striga asiatica, Cyperus rotundus, Cyperus esculentus, Oxalis latifolia***

Morphology

- Weeds may be classified on the basis of plant morphology into narrow leaf (grass-like) monocotyledons and broad leaf weeds – dicotyledons
- The ease of use of this classification makes it most popular among agricultural field workers who lack basic knowledge of plant taxonomy

Scientific classification

- **Binomial nomenclature**
- **Standard method used by scientists and other technicians throughout the world.**
- **System introduced by Linnaeus – uses a 2-part (binomial) system of Latin names.**
- **The first part identifies the genus (generic name) and the second part identifies the specific epithet (species).**

- This system groups all plants on the basis of their taxonomy into families, genera and specific epithets.
- E.g “Bondwe, Bononguwe, Bonko, Libowa”
- Family: Amaranthaceae
  - Genus: *Amaranthus*
    - Species: *spinosus.*
- This type of weed classification provides the nomenclature used in technical writings and other communications among scientists.