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# 3. Classification of Weeds



## 3.1 Based on life span

Based on life span (Ontogeny), weeds are classified as Annual weeds, Biennial weeds and Perennial weeds.

### 3.1.1 Annual Weeds

Weeds that live only for a season or a year and complete their life cycle in that season or year are called as annual weeds.

- a. Monsoon annual-*Commelina benghalensis*, *Boerhavia erecta*
- b. Winter annual-*Chenopodium album*



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## 3.1.2 Biennials

It completes the vegetative growth in the first season, flower and set seeds in the succeeding season and then dies. These are found mainly in non-cropped areas.

Eg. *Alternanthera echinata*, *Daucus carota*

## 3.1.3 Perennials

Perennials live for more than two years and may live almost indefinitely. They adapted to withstand adverse conditions.

Eg. *Cyperus rotundus*



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## 3.2 Based on ecological affinities

**3.2.1 Wetland weeds:** They are tender annuals with semi-aquatic habit

**3.2.2 Garden land weeds (Irrigated lands):**

Eg. *Trianthema portulacastrum*, *Digera arvensis*

**3.2.3 Dry lands weeds:** These are usually hardy plants with deep root system  
Eg. *Tribulus terrestris*, *Argemone mexicana*.



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## 3.3 Based on soil type (Edaphic)

### 3.3.1 Weeds of black cotton

**soil:** These are often closely allied to those that grow in dry condition. Eg., *Aristolochia bracteata*

**3.3.2 Weeds of red soils:** They are like the weeds of garden lands consisting of various classes of plants. Eg. *Commelina benghalensis*



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**3.3.3 Weeds of light, sandy or loamy soils:** Weeds that occur in soils having good drainage. Eg. *Leucas aspera*

**3.3.4 Weeds of laterite soils:**  
Eg. *Lantana camara*, *Spergula arvensis*



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## 3.4 Based on place of occurrence

**3.4.1 Weeds of crop lands:** Eg. *Phalaris minor* in wheat

**3.4.2 Weeds of pasture lands:** Weeds found in pasture / grazing grounds. Eg. *Indigofera enneaphylla*

**3.4.3 Weeds of waste places:** Eg. *Gynandropsis pentaphylla*, *Calotropis gigantean*

**3.4.4 Weeds of playgrounds, road-sides:.** Eg. *Alternanthera echinata*, *Tribulus terrestris*



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## 3.5 Based on Origin

**3.5.1 Indigenous weeds:** All the native weeds of the country are coming under this group and most of the weeds are indigenous. Eg. *Acalypha indica*, *Abutilon indicum*

**3.5.2 Introduced or Exotic weeds:** These are the weeds introduced from other countries. These weeds are normally troublesome and control becomes difficult. Eg. *Parthenium hysterophorus*, *Phalaris minor*, *Acanthospermum hispidum*





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## 3.6 Based on cotyledon number

Based on number of cotyledons it possess it can be classified as dicots and monocots.

**3.6.1** Monocots Eg. *Panicum flavidum*,  
*Echinochloa colona*

**3.6.2** Dicots Eg. *Crotalaria verucosa*, *Indigofera viscosa*



## 3.7 Based on soil pH

Based on pH of the soil the weeds can be classified into three categories.

**3.7.1** Acidophile – Acid soil weeds eg. *Rumex acetosella*

**3.7.2** Basophile – Saline & alkaline soil weeds eg. *Taraxacum sp.*

**3.7.3** Neutrophile – Weeds of neutral soils eg *Acalypha indica*



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## 3.8 Based on morphology

This is the most widely used classification by the weed scientists.

**3.8.1 Grasses:** All the weeds come under the family Poaceae are called as grasses

Eg. *Echinochloa colonum*, *Cynodon dactylon*.

**3.8.2 Sedges:** The weeds belonging to the family Cyperaceae come under this group.

Eg. *Cyperus rotundus*, *Fimbristylis miliaceae*.

**3.8.3 Broad leaved weeds:** This is the major group of weeds. All dicotyledon weeds are broad leaved weeds.

Eg. *Digera arvensis*, *Tridax procumbens*



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## 3.9 Based on nature of stem

**3.9.1 Woody weeds:** Weeds include shrubs and undershrubs and are collectively called brush weeds. Eg. *Lantana camera*, *Prosopis juliflora*

**3.9.2 Semi-woody weeds:** eg. *Croton sparsiflorus*

**3.9.3 Herbaceous weeds:** Weeds have green, succulent stems are of most common occurrence around us. Eg. *Amaranthus viridis*



## 3.10 Based on specificity

### 3.10.1 Poisonous weeds

Eg. *Datura fastuosa*, *D. stramonium*

### 3.10.2 Parasitic weeds

1. Total root parasite – *Orabanche cernua* on Tobacco
2. Partial root parasite - *Striga lutea* on sugarcane and sorghum
3. Total stem parasite - *Cuscuta chinensis* on leucerne and onion
4. Partial stem parasite - *Loranthus longiflorus* on mango and other trees



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### **3.10.3 Aquatic weeds:**

**Submersed weeds:** Eg. *Utricularia stellaris*,  
*Ceratophyllum demersum*.

**Emersed weeds:** Eg. *Nelumbium speciosum*,  
*Jussieua repens*.

**Marginal weeds:** *Typha*, *Polygonum*,  
*Cephalanthus*, *Scirpus*, etc.

**Floating weeds:** Eg. *Eichhornia crassipes*,  
*Pistia stratiotes*, *Salvinia*, *Nymphaea*  
*pubescens*.