

Weed and weed control

A weed may be defined as "a plant out of place or a plant where is not desired ".

A weed may also be defined as "a plant that does more harm than good and has the habit of intruding (تدخل عنوة) where not wanted.

A plant is often termed weed when it has one or more of the following characteristics:

1. Little or no value as in (medicinal, nutritional or energy).
2. Very high growth rate and/or ease of germination.
3. Exhibits competition to crops for space, light, water and nutrients.

Loss due to weeds:

Weeds cause a direct loss to farmers in the following ways:

1. They lower the selling value of the land.
2. They reduce crop yields.
3. They reduce the market value of crop.
4. They increase the expense of cultivation and harvest.
5. They harbor (مأوى) Fungi & Insects that attack adjacent crops.
6. In certain cases they poison or otherwise injure (يؤذي) man.

Advantages of weeds:

1. It added organic matters to the soil.
2. It added mineral nutrient to the soil.
3. Prevent the leaching of nutrients from the soil.
4. It control water or wind erosion. (تعرية).

Weed classification:

The habit of life, growth, and propagation of weeds, very important factors to limiting the methods of weed control. Hence we studied the two main systems of weed classification:

Natural classification:

This study deals with physiological, morphological, and anatomical characteristics as follow:

1. Fungi: the plants which possess chlorophyll and lives in aquatic places, it may presents in rice field.
2. Monocot weeds: e.g. *Cynodon dactylon*.
3. Dicot weeds: e.g. *Alhagi maurorum* Fis.

Artificial classification:

It possibility classified according to special characteristics of weed:

1. According to its distribution:

- a) Some weeds showing up from cannels or irrigation ditch and road sides' e.g. *Imperata cylindrical* (الحلفا).
- b) Some weeds presents with certain crop, because of the similarity of life duration.
- c) Some weeds have best existence in certain soil than another, e.g. *Alhagi maurorum* (Prickly alhagi) lives well on sandy soils.

2. According to life cycle:

a) Annuals:

- Winter weeds e.g. *Medicago hispida* (Bur clover).
- Summer weeds e.g. *Amaranthus retroflexus* (Rough pigweed عرف الديك)

b) Biennial: e.g. *Daucus carota* L. wild carrot الجزر البري

- c) Perennial: e.g. *Cyperus rotundus* L. Nut Grass السعد & *Cynodon dactylon* Bermuda Grass الثيل.

Poisonous weeds:

Some weeds has an injure effects to animals and humans e.g. sorghum it causes gastritis or stomach inflammation التهاب المعدة when eaten this plants especially at the first stages of growth, in reason to high contain of prussic acid.

Persistence of weeds:

Weeds usually are able to survive in competition with crop plants because of:

1. A wide range of adaptability.
2. Effective, means propagation such as by underground parts.
3. It produce large amount of seeds/plant.
4. Weed seeds remain viable in the soil for many years.

Weed control:

Is the botanical component of pest control, using physical and chemical methods to stop weeds from reaching a mature stage of growth when they could be harmful to domesticated plants and livestock. In order to reduce weed growth, many "weed control" strategies have been developed in order to contain the growth and spread of weeds.

The most basic is ploughing which cuts the roots of annual weeds. Today, chemical weed killers known as herbicides are widely used.

Weed eradication:

Means complete elimination of all live plants, plant parts and the seeds of a weed infestation from an area.

The common methods of weed control are:

1. Cultivation.
2. Mowing
3. Flaming

4. Pasturing.
5. Crop rotation.
6. Use of clean seeds.
7. Chemical herbicides.

Chemical herbicides:

Chemical herbicides are different according to their time of application:

1. Pre-planting.
2. Pre-emergence.
3. Post-emergence.

They also classify according to their mode of action, could be selective or non-selective herbicides.

The selective weed killer: such as:

1. 2-4,D for broad leaved.
2. MCP for thistle (شوك).
3. Barban for narrow leaved.
4. TCA for Johnson grass.

The non-selective herbicide (weed killer): such as Gramaxone.