**Damages Or Losses Caused By Weeds or Disadvantages of Weeds**

1. **Reduction in crop yield:**

 Each kg of weeds biomass produced, one kilogram of wheat grain reduced. Estimated losses due to weeds in Pakistan

|  |  |
| --- | --- |
| Crop | Yield losses (%) |
| Wheat | 17-35 |
| Rice | 20-60 |
| Maize | 20-45 |
| Cotton | 13-50 |
| Sugarcane | 25-35 |
| Pulses | 25-55 |
| Oilseeds | 10-50 |

**2.compete for**

 **i. Nutrients**

 **Fathen and Pigweed consumes double of NP and triple K than crops**

 **Reduce uptake by crop palnts through some mechanism like release of toxins in root zone**

 **ii. Light**

 **Compete for light especially the attain height near to crop plants**

 **iii. Water**

|  |  |
| --- | --- |
| **Plant** | **Water Required (L/kg dry matter)** |
| **Bathu (Chenopodium album)** | **650** |
| **Wheat** | **545** |
| **Maize** | **350** |

 **iv. CO2**

 **Due to more leaf area more utilization of CO2**

 **Leaf area (at Blooming) of Wild mustard 7300 cm2 and for wheat 140 cm2**

**v.Space**

**Increase in the cost of cultivation:** One of the objects of tillage is to control weed on which 30% expenditure is incurred and this may increase more in heavy infested areas & also cost on weed control by weeding or chemical control. Hence, reduce margin of net profit.

Hand weeding in one hectare of rice requires 100 to 780 labour hours depending upon rice culture.

**3. Quality of field produce is reduced:** Weed seeds get harvested & threshed along the crop produce which lowers the quality. Such produce fetches fewer prices in the market. E.g.: Leafy vegetables, grain crop.

Wild onion may taint milk when eaten by cows

Wild onion bulbs and wild mustard seed lower the grain quality

Red rice has a pigment layer that shatter easily and readily contaiminaye rough rice. Removing this pigment requires intensive milling which decrease the grain quality

**4. Reduction in quality of livestock produce:** Weeds impart an undesirable flavor to the milk (Ghaneri), impair quality of wool of sheep (Gokhuru, Aghada), and cause death of animals due to poisonous nature of seed (Dhatura).

**5. Harbour insect-pests & disease pathogens:** Weeds either give shelter to various insect pests & disease pathogens or serve as alternate hosts & thus helps in perpetuating the menace from pests & diseases. E.g.: Gall fly of paddy, midge fly of Jowar, leaf minor of soybean & Groundnut, rust of Wheat, tikka of Groundnut, Black rust of wheat ,Downey mildew (Saccharum spontaneum).

Pigweed is host for whitefly aphid and jassid

Field bind weed is host for virus causing leaf curling in cotton

**6. Check the flow of water in irrigation channels:** Weeds block drainage & check the flow of water in irrigation canals & field channels thereby increasing the seepage losses as well as losses through over through over flowing, so reduce the irrigation efficiency.

Water Hyacinth, algae and other aquatic weeds

**7. Secretions are harmful:** Heavy growth of certain weeds like quack grass (Agropyon repens) or lavala lowers the germination & reduce the growth of many crop plants due to presence of certain phytotoxins secreted by weeds.

Creeping thistle

Brmudagrass

Common purslane release chemical which inhibit the germination of wheat

**8. Harmful to human beings and animals:** Weeds cause irritation of skin allergy & poisoning to human beings, also death of castles. Parthenium cause skin dieases in animals and humans

**9. Cause quicker wear & tear of farm implements:** Being hardy & deep rooted; the tillage implements get worn out early & cannot work efficiently unless they are properly sharpened or mended.

**10. Reduce value of the lands:** Heavily infested lands with perennial weeds fetch less price as require heavy expenditure to brought under cultivation.

**11. Interfere with cultivation and harvest operations.**

Johnson grass makes land preparation difficult

Field Bind weed and yellow thistle hinder harvesting operations in wheat.

**12. Act as Parasite**

Cuscuta sp. Affect clovers tobacco, several other ornamental plants and forests

**13. Reduced aesthetic value**

14. Some weeds may hinder visibility on roads