

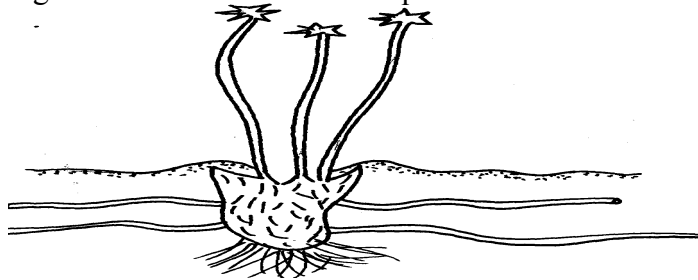
WEEDS AND WEED CONTROL

This topic entails the following:

- Definition of a weed
- Identification of weeds
- Classification of weeds
- Competitive ability of weeds
- Description of weed control methods
- Harmful effects of weeds

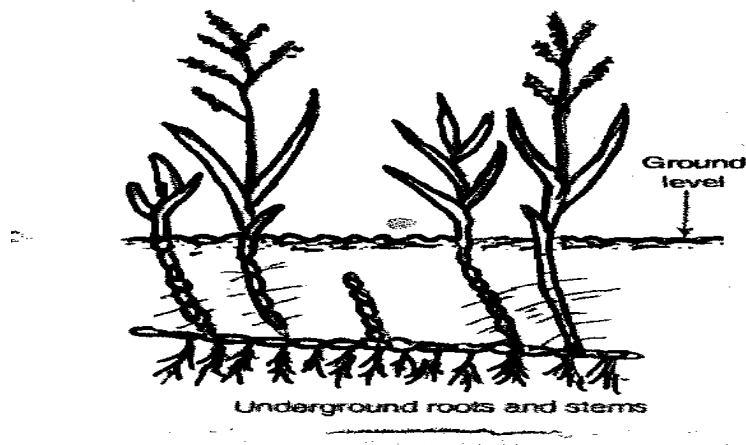
The following relevant questions and their answers in this topic will greatly motivate and help the user to comprehend and understand the required concepts and practices:

1. Study the diagram below and answer the questions that follow:



- (a) Identify the weed
- (b) Why is it difficult to control the weed?
- (c) State the economic importance of the weed shown above

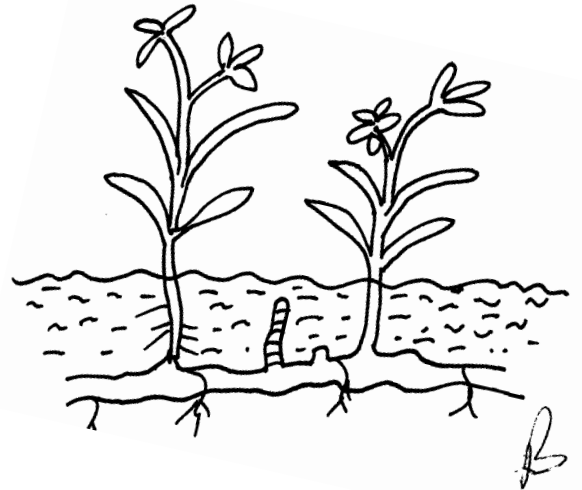
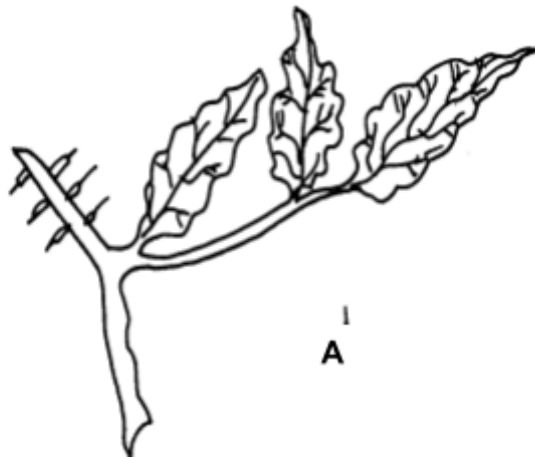
2. The following is an illustration of a common weed of arable land



- (a) Identify the weed
- (b) Why is it difficult to control the weed?
- (c) State **one** harmful effect of the weed on crop production

(d) Give **two** measures used to control the weed

3. Below is a diagram of some common weeds. Study then and answer the questions that follow:-



(i) Identify weed **A** and **B**

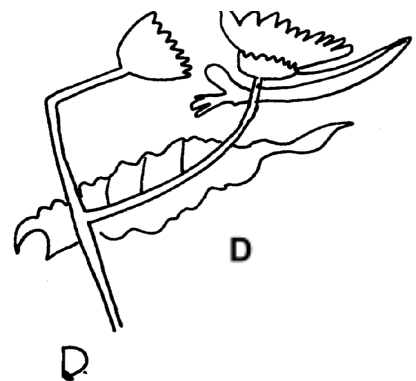
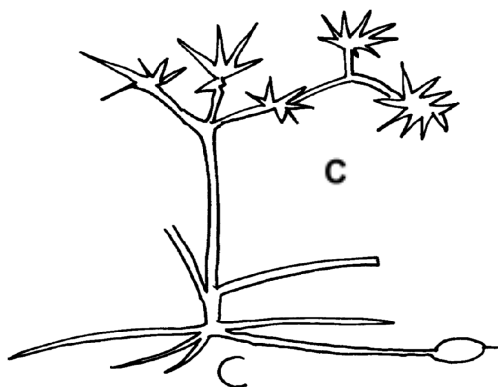
(ii) State **two** effects of weed **B** on crop production

(iii) Give a reason why weed **B** is difficult to control

(iv) State the effective method of controlling weed **B**

4. Give **four** methods of propagation which make weeds have a high competitive ability over crops

5. The diagrams below show weeds:-



Identify the weeds **C** and **D**

(b) State why it is difficult to control weed **C**

(c) State **two** economic importance of weed **D**

6. (a) List any **four** types of weeds known to be poisonous to livestock
 (b) At what stage of life cycle is best recommended to control weeds?
7. State **two** disadvantages of using herbicides
8. a) Name **four** herbicides that can be used to control weeds in a field of maize
 b) At what stage of growth of maize should the weeds be controlled by use of a post emergence herbicides
9. (b) Give an account of economic importance of weeds
10. a) mention **two** factors that affect selectivity of herbicides
11. Listing specific examples of weeds describe their harmful effects in agricultural production

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1. Oxalis (sorrel)
 -(oxalis latifolia)
 b)- The weed contain bulbs i.e Elaborate & extensive root system that support the plant.
 - Because it has rhizomes.
 c) State the economic importance of the weed shown.
 - Reduces yields of crops.
 - Increases cost of production.
 - It's a livestock feed.
 - Fixation of nitrogen.
2. (a) Couch grass Digitaria Scalarum (½mk)
 (b) Why is it difficult to control the weed?
 - It has got underground rhizomes which grow deep in the soil (½ x 1pt = 1mk)
 (c) One harmful effect of the weed on crop production
 - Competes with crops for nutrients/soil moisture and space resulting to low yields
 - Increases the cost of production when controlling it
 (d) Two measures used to control the weed

- Use of appropriate herbicides
 - Physical removal of rhizomes
3. i)- A-Double thorn (oxygonium sinuatum)
- B- Coach grass (Digiteria scalarum)
- ii) - Lower the quality of produce
- Lower yields
 - Compete with intended plants for nutrients and water
- iii) Weed B is difficult to control as it has underground rhizomes
- iv) Can be effectively controlled by use of chemicals
4. Four methods of propagation which make weeds to have a high competitive ability over crops
- Availability to produce many viable seeds
 - Ability to propagate vegetative –with bulbs, rhizomes
 - Ability to regenerate woody stems-quickly
 - Efficient means of propagation
- Ability to remain viable in the soil for a long period of time
5. Weed C – Nutgrass (Cyprus rotundus)
- Weed D – Sow thistle (sonchus oleraceous)
6. a) - Thorn apple
- Sodom apple
 - Oxalis
 - Tick berry
- (½
x4=2 mks)
- b) - Before flowering to avoid spread through seeds
- Early stage before spreading underground organs
- 7.
- Requires skilled labour
 - Have long residual effect which interferes with future crops
- It is not environmental friendly/ pollutes the environment
8. a)
- MCPA
 - 2 - 4 - D
 - Bentazon
 - Bromoxynil
 - Linuron
 - Loxxyril
 - Atrazine
 - Metrubuzin
- b) - 10 – 15cm high
- 2 – 4 weeks after emergence
- 9.

- Complete for nutrients/ light/ space
- ACD as alternate host of insect pests
- Some produce poisonous substances
- Blocks water cords
- Lowers the quality of pasture
- Poisonous to man and livestock
- Parasites of desired crops
- Aquatic weeds affect navigation and water animals
- Increase the cost of production
- Cause irritation to workers
- Some have medicinal value
- Eaten by man and livestock
- Acts as soil cover
- Add organic matter in the soil
- Some are legumes

10. a) two factors that affect selectivity of herbicides

- Stage of plants growth
- Plants morphology and anatomy
- Mode of action
- Environmental factors (2x1=2mks)

11. specific examples of weeds describe their harmful effects in agricultural production

- Compete with crops for nutrients spacing, light, moisture lowering yield e.g. MacDonald's eye etc
- Some are parasitic e.g. wiwhweed
- Low quality of produce e.g. Mexican marigold lowering quality of milk/pigweed seeds in finger millet
- Poisonous to both man and livestock e.g. Dahira stramonium, Bracken fern
- Allirinate hosts for pests and diseases e.g. mallow weed –for cotton strainer
- Some are allelopathic/hinder germination e.g. Mexican marigold
- Block irrigation channel e.g. salvinia/water hyacinth
- Affect fishing and navigation-salvinia and water hyacinth
- Lower quality of pasture e.g. manyatta grass
- Reduce workers efficiency/irritate e.g. double thorn, shnging nelthe, devil's horse whip