FlexiPrep

Autotrophic and Heterotrophic Nutrition: Introduction to Heterotrophic Nutrition (For CBSE, ICSE, IAS, NET, NRA 2022)

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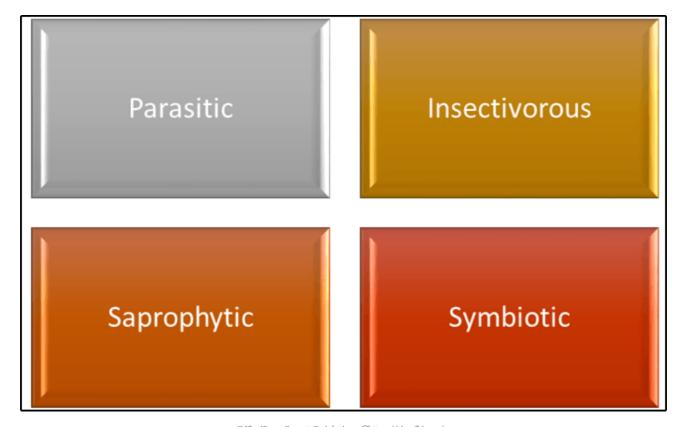
Introduction to Heterotrophic Nutrition

- In this type of nutrition organisms depend upon other organisms for food to survive.
- These organisms must take in all the organic substances they need to survive.
- Examples include all animals, fungi, and non-photosynthesizing plants.
- Pigment is not required in this type of nutrition.

Heterotrophic Nutrition in Plants

The type of nutrition in plants wherein some plants that do not contain chlorophyll and depend on other plants for their food through the heterotrophic mode of nutrition.

Heterotrophic Plants (Based on Mode of Nutrition)



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Parasitic Nutrition

- Those heterotrophic plants that depend on other plants and animals for nutrition are known as parasitic plants and the nutrition is known as Parasitic Nutrition.
- For e. g. lice, tapeworms, etc.

Insectivorous Nutrition

• Plants like Pitcher Plant digest the insects by secreting digestive juices and absorb the nutrients from them and the type of nutrition is called Insectivorous nutrition.

- Such heterotrophic plants grow on the soil that lacks minerals.
- For e. g. Venus flytrap, utricularia, drosera, etc.

Saprophytic Nutrition

- Nutrition is derived from dead and decaying plants and animals.
- Secreting digestive juices are used for dissolving the dead and decaying matter.
- For e. g., mushrooms, mould, etc.

Symbiotic Nutrition

- In this type of nutrition, a close association is shown by two different plants belonging to two different categories.
- Both the pants are mutually benefitted.
- For e. g. Rhizopus (bread mould), Mucor (pin mould), Yeast, Agaricus (mushroom), etc.

FAQs

Q. what's the main mode of nutrition in plants?

Answer:

The main mode of nutrition in plants is the autotrophic mode of nutrition.

Q. What is autotrophic and heterotrophic nutrition?

Answer:

- Autotrophic nutrition is that type of nutrition in which organisms prepare their own food from simple inorganic material like water, mineral salts, and carbon dioxide in the presence of sunlight.
- Heterotrophic nutrition is that nutrition in organisms depend upon other organisms for food to survive.
- Q. What are the two types of Autotrophic nutrition?

Answer:

The two types of Autotrophic nutrition are:

- i) Photo-autotrophic nutrition (Sunlight is the energy source)
- ii) Chemo-autotrophic nutrition (Chemicals are the energy source)
- Q. List out the important steps involved in the process of Photosynthesis?

Answer:

There are four steps involved in the process of Photosynthesis:

- i) Absorption of energy from sunlight.
- ii) Light energy is converted into chemical energy.

- iii) Hydrolysis of water into oxygen and hydrogen.
- iv) Carbon dioxide is reduced to form glucose using chemical energy.

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