

3) Unicellular algae are plant-like autotrophs and contain chlorophyll. They include groups that have both multicellular and unicellular species: Diatoms, unicellular algae that have siliceous cell walls. unicellular forms of algae are also called acellular algae as they function as complete living organisms.

4) The unicellular forms of algae commonly reproduce by this simple process, often called binary fission as found in Chlamydomonas, Synechococcus, diatoms etc. In this method the vegetative cell divides mitotically into two daughter cells, those finally behave as new individual.

5) Difference between two types of colonial form of algae

Volvox	Synura
1) A volvox colony is a hollow sphere of mucilage having 500 or more biflagellate algal cells that are equally spaced around on its outer surface.	They have varied number of ovoid golden brown cells. Each cell bears two flagella whose beatings propel the colony through the water with a smooth rolling motion.
2) Reproduction is both sexual and asexual.	Reproduction is sexual.

6) Spirogyra is a filamentous charophyte green algae of the order of Zyemenales, named for the helical or spiral arrangement of the chloroplasts that is characteristic of the genus. It is found in fresh water habitats, and there are more than 400 species of spirogyra in the world.

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1) A system of plant taxonomy, the Eichler system was the first phylogenetic (phyletic) or evolutionary system. He gave system of classification for the whole plant kingdom. Eichler classified the plant kingdom into two sub-kingdom. They are Cryptogamæ and Phanerogamæ.

a) Cryptogamæ are flowerless and seedless plants. They are simple and flowerless plants like algae, mosses and ferns which do not produce flowers, fruits and seeds. Cryptogams are considered as lower plants.

b) Phanerogamæ and seed bearing plants. So they are also known as spermatophytes. They are higher plants. The plant body is differentiated into roots, stem and leaves with well developed vascular system. Examples are angiosperms and gymnosperms.

2) Importance of algae to man

- 1) It is used as a source of vitamins
- 2) It is used as a source of agar
- 3) Manufacture of iodine
- 4) Manufacture of potash
- 5) AS a fodder for hens and milk cattle
- 6) used as fertilizers
- 7) Mineral contents
- 8) Direct use of algae as food for man
- 9) AS a source of vitamins
- 10) Manufacture of soaps and alums.