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- **Blue green algae** – increase fertility by adding organic matter.
- No. of biofertilizers are commercially available.

For production of biodegradable plastics :-

- biodegradable plastic, e.g. polyhydroxybutyrate (PHB) is being produced commercially by fermentation with the bacterium *Alcaligenes eutrophus*.
- Production of PHB may be easily achieved in tree plants like populus, where PHB can be extracted from leaves.
- Other main drawback of bacterial PHB is its high production cost, making it substantially very expensive than synthetic plastics.

As edible vaccines :-

- the genes encoding the antigenic proteins of virus and bacteria can be isolated from the pathogens and expressed in plants.
- such transgenic plants or their tissues producing antigens can be eaten for vaccination/immunization (edible vaccines).
- the expression of such antigenic proteins in crops like banana and tomato are useful for immunization of humans since banana and tomato fruits can be eaten raw. Example: cholera and hepatitis B vaccine.

Process of sewage treatment in STP

- a) Primary treatment(physical)
- b) Secondary treatment(biological)

Effluent loaded in large aeration tank, Agitation & rapid growth of aerobic microbes (flocs) ,Consumes organic matter ,reduces BOD, Effluent passed to settling tank, Flocs sediments form – activated

sludge(A.S.) Poured into sludge digester(small amount of A.S. used as inoculum) Filtration & sedimentation.

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