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Using Plants Wastes and No harvestable Particles for Production of Degradable Plastics

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Many modern developments would have been impossible without the use of plastics. Oil materials which are nonrenewable resource are used in making plastics. Therefore, it seems very useful and necessary to produce plastics made without fossil raw materials in future. Moreover, increase in production and consumption of plastics creates serious problems related to plastics wastes which cause erosion and reduction of soil efficiency in landfill. Using degradable plastics is a suitable alternative for this problem. Poly Hydroxyalkanoate (PHA), Poly Hydroxybutyrate (PHB), and Poly Lactic Acid (PLA) are the polymers produced so far. Microorganisms can produce these three kinds of polymers. Polymeric materials produced in plant cells are mostly of PHB. For instance, by growing plastic in leaves and stem of corn, not only we use the nonharvestable parts of the plant, but also the corn is still eatable. This can eliminate the problems of landfill and pollution.

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