Course 2 :Theory: OE- 2T, BTC 302,
Applications of Biotechnology in Agriculture
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Applications of Biotechnology in Agriculture
42 Hrs

Unit – 1: Agricultural Biotechnology 14 Hrs

Concepts and scope of biotechnology in Agriculture. Plant tissue culture, micro propagation, entrepreneurship in commercial plant tissue culture. Banana tissue culture - primary and secondary commercial setups, Small scale bioenterprises: Mushroom cultivation

Unit – 2: Transgenic plants 14 Hrs

The GM crop debate – safety, ethics, perception and acceptance of GM crops
GM crops case study :Bt cotton, Bt brinjal,
24
Biopesticides: Baculovirus pesticides, Mycopesticides
Genetic Engineering for quality improvement: Golden rice, Seed storage proteins, Flavours– capsaicin, vanillin

Unit – 3: Molecular pharming and post harvest protection 14 Hrs

Plants as biofactories for molecular pharming: edible vaccines, plantibodies, nutraceuticals
Post-harvest Protection: Antisense RNA technology for extending shelf life of fruits and shelf life of flowers.
Biosafety, bioethics and IPR

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