

M.Sc. (Ag.) (Horticulture)

Minor

- **CourseTitle** :PrinciplesandPracticesofOrganicFarming
- **CourseCode** :AGR503
- **CreditHours** :2+1
- **Objectiveofthecourse**
Tostudytheprinciplesandpracticesoforganicfarmingforsustainablecropproduction.
- **Theory**
 - UnitI**
Organic farming - concept and definition, its relevance to India and global agricultureandfutureprospects;principlesoforganicagriculture;organicsandfarmingstandards;organicfarmingandsustainableagriculture;selectionandconversionof land, soil and water management - land use, conservation tillage; shelter zones,hedges,pasturemanagement,agro-forestry.
 - UnitII**
Organic farming and water use efficiency; soil fertility, nutrient recycling, organicresidues, organic manures, composting, soil biota and decomposition of organicresidues, earthworms and vermicompost, green manures, bio-fertilizers and biogastechnology.
 - UnitIII**
Farming systems, selection of crops andcrop rotations, multiple and relay croppingssystem,intercroppinginrelationtomaintenanceofsoilproductivity.
 - UnitIV**
Controlofweeds,diseasesandinsectpestmanagement,biologicalagentsandpheromones,bio-pesticides.
 - UnitV**
Socio-economicimpacts;marketingandexportpotential:inspection,certification,labelingandaccreditationp rocedures;organicfarmingandnationaleconomy.
- **Practical**
 - Methodofmakingcompostbyaerobicmethod
 - Methodofmakingcompostbyanaerobicmethod
 - Methodofmakingvermicompost
 - Identificationandnurseryraisingofimportantagro-forestrytressandtressforshelterbelts
 - Efficientuseofbiofertilizers,techniqueoftreatinglegumeseedswith*Rhizobium* cultures,useof*Azotobacter*,*Azospirillum*,andPSBculturesinfield
 - Visittoabiogasplant
 - Visittoanorganicfarm
 - Qualitystandards,inspection,certificationandlabelingandaccreditationproceduresforfarmproduc efromorganicfarms
- **Teachingmethods/activities**
ClassroomteachingwithAVaids,groupdiscussion,assignment.exposurevisit
- **Learningoutcome**
Basicknowledgeonorganicfarmingforsustainableagricultureanddevelopme
- **SuggestedReading**
 - AnanthkrishnanTN.(Ed.).1992.*EmergingTrends inBiologicalControlofPhytophagousInsects*.Oxford&IB H.
 - GaurAC.1982.*AManualofRuralComposting*,FAO/UNDPRegionalProjectDocument,FAO.
 - JoshiM.2016.*NewVistasofOrganicFarming*.ScientificPublishers
 - LampinN. 1990. *Organic Farming*. PressBooks, Ipswich,UK.
 - PalaniappanSPandAnanduraiK.1999.*OrganicFarming–TheoryandPractice*.ScientificPubl.
 - RaoBVVenkata.1995.*SmallFarmerFocusedIntegratedRuralDevelopment:Socio-economic*



Environment and Legal Perspective: Publ.3, Parisaraprajna Parishatana, Bangalore.

- Reddy MV. (Ed.). 1995. *Soil Organisms and Litter Decomposition in the Tropics*. Oxford & IBH.
- Sharma A. 2002. *Hand Book of Organic Farming*. Agrobios.
- Singh SP. (Ed.). 1994. *Technology for Production of Natural Enemies*. PDBC, Bangalore.
- Subba Rao NS. 2002. *Soil Microbiology*. Oxford & IBH.
- Trivedi RN. 1993. *A Text Book of Environmental Sciences*, Anmol Publ.
- Veeresh GK, Shivashankar Kand Suiglachar MA. 1997. *Organic Farming and Sustainable Agriculture*. Association for Promotion of Organic Farming, Bangalore.
- WHO. 1990. *Public Health Impact of Pesticides Used in Agriculture*. WHO.
- Woolmer PL and Swift MJ. 1994. *The Biological Management of Tropical Soil Fertility*. TSBF & Wiley.

