AMH19 DRY LAND HORTICULTURE

UNIT-1 THEORY

1.1 Definition, importance and limitation of dry land horticulture, present status and future scope.
1.2 Constraints encounter in dry lands.
1.3 Agro-climatic features in rain shadow areas, scarse water resources, high temperature, soil erosion, run-off losses etc.
1.4 Techniques and management of dry land horticulture.
1.5 Watershed development, soil and water conservation methods-terraces, contour bunds, etc.
1.6 Methods of control and impounding of run-off water farm ponds, trenches, and macro catch pitsetc.
1.7 In-situ water harvesting methods, micro catchment, different types of tree basins etc.
1.8 Methods of reducing evapotranspiration, use of shelter belts, mulches, antitranspirants, and growth regulators, etc.
1.9 Water use efficiency-need based, economic and conjunctive use of water, micro systems of irrigation etc.
1.10Selection of plants having drought resistance.
1.11 Special techniques, planting and after care-use of seedling races, root stocks, in-situ grafting, deep pitting/planting, canopy management etc.
1.12 Characters and special adaptation of crops: ber, aonla, annona, jamun, wood apple, bael, pomegranate, Carissa, date palm, phalsa, fig, West Indian cherry and tamarind.

UNIT-2 PRACTICAL

2.1 Study of rainfall patterns. Contour bunding/trenching, micro catchments, soil erosion and its control.
2.2 Study of evapotranspiration, mulches and micro irrigation systems.
2.3 Special techniques of planting and aftercare in dry lands.
2.4 Study of morphological and anatomical features of drought tolerant fruit crops.

Reference Books:

1. Chundawat, B.S. 1990. Arid Fruit Culture. Oxford and IBH, New Delhi.
2. P.L. Taroj, B.B. Vashishtha, D.G.Dhandar. 2004. Advances in Arid Horticulture. Internal Book Distributing Co., Lucknow.
3. T. Pradeep Kumar, B. Suma, Jyothi Bhaskar and K.N.Sathesan. 2008. Management of Horticultural Crops. New India Publishing Agency.