RAMA UNIVERSITY, KANPUR, UTTARPRADESH

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Course: Principles of Organic farming

B. Sc. Ag. 3rd Year

Agro-forestry

Agro-forestry is a collective name for land-use systems involving trees combined with crops and/or animals on the same unit of land. It combines

a. production of multiple outputs with protection of resource base
b. places emphasis on the use of multiple indigenous trees and shrubs;
c. particularly suitable for low-input conditions and fragile environments ;
d. It involves the interplay of socio-cultural values more than in most other land-use systems; and
e. It is structurally and functionally more complex than monoculture. Definition Agro-forestry is any sustainable land-use system that maintains or increases total yields by combining food crops (annuals) with tree crops (perennials) and/or livestock on the same unitof land, either alternately or at the same time, using management practices that suit the social and cultural characteristics of the local people and the economic and ecological conditions ofthe area.

Or

Agro-forestry is a collective name for a land-use system and technology whereby woody perennials are deliberately used on the same land management unit as agricultural crops and/or animals in some form of spatial arrangement or temporal sequence. In an agroforestry system there are both ecological and economical interactions between the various components.

Classification of agro-forestry system

Nair (1987) has classified the agro-forestry systems based on the following four criteria.

1. Structural Basis
2. Functional basis
3. Socio economic Basis
4. Ecological basis

1. STRUCTURAL BASIS

a) Nature of Components

b) Arrangements of Components

a) Nature of Components

1. Agricultural systems
2. Silvopastoral systems
3. Agrosilvopastoral systems
4. Other systems

1. Agricultural systems

i. Improved fallow species in shifting cultivation

ii. The taungia system

iii. Multispecies tree gardens

iv. Alley cropping

v. Multipurpose trees and shrubs on farmlands

vi. Crop combinations with plantation crops

vii. Agroforestry fuel wood plantations

viii. Shelter belt s

ix. Wind breaks

x. Soil conservation hedges