

PRINCIPLES AND CONCEPTS OF CROPPING SYSTEMS

(Part- 1)

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PRINCIPLES AND CONCEPTS OF CROPPING SYSTEMS

Cropping system – Cropping patterns practiced on a farm

Cropping patterns – Different crop sequences followed in a year

- ❖ **Rainfall is the main & the most variable source of water for dryland crops**
- ❖ **Rainfall variability plays a dominant role in influencing crop growth and yield and also in crop planning**
- ❖ **Cropping pattern in a region is usually planned on the basis of prevailing rainfall behavior**

Important climatological inputs in crop planning

- ❖ **Seasonal rainfall**
- ❖ **Probable period of assured rainfall distribution**
- ❖ **Long range forecast**
- ❖ **Medium-range forecast**

IMD forecasting of seasonal rainfall accuracy of more than 90%

Characteristics of crops / varieties for drylands

Capacity to produce a fairly good yield under limited soil moisture conditions

- ❖ Short life or yearly reproductive cycle**
- ❖ Photo - insensitive**
- ❖ Strong and penetrating root system**
- ❖ Low water requirement**
- ❖ Higher harvest index**

Types of cropping systems

a) Mono cropping – A single crop is grown on a piece of a land and the same crop is grown every year

Predominant mono crops in drylands

- Groundnut, Sorghum and Finger millet

b) Multiple cropping – Two or more crops are grown on the same piece of land in one calendar year