**Rainfall use efficiency (RUE)**

The rainfall use efficiency is defined in many ways. The most common definition is WUE**.** WUE = Dry weight produced/ET WUE as the ratio of water used (ET) to the water potentially available (Rainfall + stored moisture). Any soil moisture conservation technique, which increases the RUE, will be considered as the best management technique for that area. RUE is the relationship between yield and rainfall. RUE = Yield/Rainfall Kg/mm.

**A) Choice of crops**

Traditional cropping pattern in the dry farming areas is dominated by food grains viz., millets and pulses. In a predominantly subsistence type of farming system, such dominance of food crops is natural. The choice of crops for dry lands is affected by rainfall quantity and distribution, time of onset of monsoon, duration of monsoon, soil characters including amount of rainwater stored in the soil and farmer’s requirements. The criteria for choice of crops comprise the following

• tolerance to drought

• fast growth during initial period to withstand harsh environment

• genetic potential for high yield

• short or medium duration to escape terminal drought

 • adaptability to wide climatic variations

• response to fertilizers

**B. Selection of suitable varieties**

In dry farming regions, traditional local crop varieties still dominate. The preference for these local varieties is based on their pronounced drought tolerance. But they are usually longer in duration susceptible to moisture stress at maturity. They have low yield potential even under favourable rainfall. They do not respond significantly to improved management such as nutrient supply. The criteria now adopted for selection of crop varieties for dry lands include drought tolerance, short or medium duration, high yield potential, response to nutrient supply, high water use efficiency, moderate resistance to pest and diseases

**D. Intercropping**

 Intercropping refers to growing two or more crops in the same field during the same season. Intercropping is widely practiced in dry farming since it offers many advantages. Intercropping is a risk minimization strategy and provides an insurance against complete crop failure due to rainfall abnormalities. This can be accomplished by the following means;

• Choice of suitable component crops differing in duration, rooting pattern, canopy architecture, nutrient requirement and occurrence of critical stages

 • Selection of genotypes in each component crop

 • Optimum population of component crops

 • Suitable crop geometry to provide adequate space for intercrops

• Preference for leguminous crops as intercrops

**E. Double cropping in dry lands**

Double cropping either by sequential cropping or relay cropping is possible in places with high rainfall (> 900 mm) extended rainy season and high soil moisture storage capacity

**(d) Crop substitution**

 It refers to the replacement of an existing low yielding crop with another crop, which is better adapted to the prevailing environment and is capable of giving higher yield under similar climatic conditions.