

## What is Arid or Dryland Agriculture?

Arid agriculture or dry land agriculture is used quite often universally. However, these are poorly defined and understood. The word 'Arid' is used for an area that is characterized by low volume of rainfall i.e. less than 10 inches of rain fall per annum. Arid agriculture is sometimes referred to as dry land agriculture. From farming perspective, arid agriculture has great importance. This is mainly because most of the regions in the world are Arid, where agricultural system lack irrigation facilities. More precisely, arid agriculture refers to as the cultivation of crops where irrigation facilities are absent and evaporation of moisture from soil exceeds rainfall.

It is interesting that rain fed agriculture and arid agriculture are sometimes consider same and used interchangeably. However, there lies massive difference between the two. Rain fed agriculture includes the arid or dryland agriculture. But arid agriculture is generally defined as growing of crops where lack of availability of moisture hampers the crop production to part of the year.

A study of world atlas shows that large chunk of the earth is arid. So, arid agriculture is adept in many parts of the globe. The countries in the Middle East, South America, the steppe lands of Eurasia, major part of Australia and southern and southwestern parts of United States bear arid climate. The weather conditions are harsh with high temperature and less availability of water. Rainfall is sporadic in arid areas. This causes flash floods when it happens because dry climate of arid areas makes the soil tough and compact that it cannot easily absorb rain water. Thus flood occurs. On the other hand, the organic matter in the soils of arid regions is low resultanty the fertility of the soil is affected. Soil erosion is a common problem in arid agriculture.

Despite of all these facts, the mankind has developed technologies to cope and sustain under harsh climate of arid nature. Arid agriculture has economic importance because if no cropping is practice in these areas, then more pressure will be exerted on other limited productive parts of the world that will eventually result in food insecurity situation. So, arid agriculture or dryland agriculture cannot be neglected of its harsh environment.

There are ways in which arid agriculture can be made productive by altering farming practices and adapting smart water conservation technologies. Mulching, growing trees at farm borders, constructing small dams, leveling the farm land, growing heat tolerant crops, avoiding formation of hard crust on soil surface, growing small structured variety of crops to minimize transpiration, usage of smart irrigation strategies like drip, furrow or sprinkler etc. are few practical ways that can ensure sustainable arid agriculture in any part of the world.