Agronomy Definition | Basic Concepts-Scope and Principles of Agronomy

admin 8 Comments basic concepts of agronomy, basic principles of agronomy, definition of agronomy
Agronomy is most important branches of Agriculture. The Agronomy Definition | Basic Concepts-Scope and Principles of Agronomy are described as following-

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## Agronomy Definition

Agronomy, The term is derived from the Greek words “agros” meaning “Field” and “nomos” meaning “to manage.”

So, **Agronomy** is a branch of agricultural science which deals with principles and practices of soil, water and crop management.

In recent times, agronomy has assumed newer dimensions and can be defined as a branch of agricultural science that deals with methods which provide a favorable environment to the crop for higher productivity.

Norman (980) defined “Agronomy as the science of manipulating the crop environment complex with dual aims of improving agricultural productivity and gaining a degree of understanding of the process involved.”

## Basic Concepts of Agronomy

Agronomy is considered as the mother or primary branch of agriculture. Like agriculture, it is nothing but an integrated and applied aspect of different disciplines of pure sciences. It has three distinct branches:

- Crop Science (mainly field crops)
- Soil science
- Environmental Science (that deals with applied aspects)

The central theme of agronomy is of soil-crop-environment relationship.

The core of agronomy is the field of crop plants with the theme of controlling the environment (micro climate). The nature of agronomy is based on soil-plant-environment relationship.

Agronomy thus denotes activities on the ground to raise outspread and noble crops to obtain massive yields.

## Scope of Agronomy

- Yield maximization with introduction of new cultivars/HYVs
- Reduced cost of production due to proper crop management
- Better water use efficiency due to agronomic knowledge
- Special tillage and intercultural operations for better crop growth and maximizing harvesting index
- Appropriate soil fertility management can increase crop yields with lesser use of fertilizer for increased profit
- Reduced post harvest loss due to agronomic knowledge and practices
- Intensive cropping patterns and integrated farming systems for sustainable agricultural growth and increased food production per unit area to feed teeming millions every year.
Basic Principles of Agronomy

Agronomic principles are the ways and means for the better management of soil, plant and environment for economically maximum returns per unit area for years.

The Basic Principles of agronomy may be listed below:

1. Planning programming and executing measures for maximum utilization of resources (land, sunshine, rain water, temperature, humidity, winds) and inputs(labor, seeds, capital, irrigation water, fertilizer/manures, farm equipment, marketing facilities etc) for increased yield and maximum profits

- Choice of proper crop varieties adaptable to the particular agro-climate, land situation, soil fertility, season and befitting to the cropping systems
- Proper field management by tillage, preparing field channels and bunds for irrigation and drainage, checking soil erosion, leveling and adopting other suitable land improvement practices
- Adoption of multiple cropping and also mixed or intercropping to ensure harvest even under adverse environmental conditions.
- Choice of quality seeds or seed materials and maintenance of requisite plant density per unit area with healthy and uniform seedlings
- Proper water management /better water use efficiency
- Adoption of adequate plant protection measures/IPM
- Adoption of suitable management practices/intercultural operations
- Adoption of suitable method of harvesting of crops as well as suitable post harvest technologies

We have already known Agronomy Definition | Basic Concepts-Scope and Principles of Agronomy. Now I have share some Role of Agronomist on the below-

ROLE OF AGRONOMIST

An Agronomist aims at obtaining maximum production at minimum costs. He makes best use of knowledge developed by basic and allied applied sciences for increased crop production. In a broad perspective, an agronomist is concerned with the production of food and fiber to meet the needs of the growing population. An agronomist undertakes research on scientific cultivation of crops taking into account the effects of factors like soil, climate and variety of crops and adjusts production techniques suitably depending on the situation. He is the key person with working knowledge of all disciplines and coordinator of different subject matter specialists.

8 thoughts on “Agronomy Definition | Basic Concepts-Scope and Principles of Agronomy”
Very useful and too good

Thanks

keep on educating the world

Thanks Tito....

please may I access information about agrometrology

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