

ST services supplied by Laboratory for assessing the mechanizing technologies allow to accurately evaluate the above technologies in order to embrace agricultural field sustainable use systems which prevent or minimize soil damage, restore its productive capacity and vital processes and ensure agro-food output increasing:

- 1. Evaluating the impact of agricultural works mechanizing technologies upon soil agro-physical state;*
- 2. Evaluating the potential risk of soil degradation;*
- 3. Analysis of soil agro-physical state dynamics.*

The process of agricultural production is directly linked to the ground. In production agriculture, aims to produce ground plant biomass necessary human and animal food. In the agricultural work on the ground are involved in agro optimal periods, it is processed through the working bodies of agricultural tillage machines.

Population growth, agriculture, urbanization, industrialization, expansion of terrestrial network traffic, the steady increase of energy, raw materials, more wide-scale use of modern techniques and others,. although they have been promoted and implemented to improve living standards were accompanied by effects (more or less predictable) harmful soil.

Soil over time can suffer various processes that may affect the structure and quality, these processes can be physical, chemical or biological. Physical, chemical and biological state of soil fertility and prints are determined predominantly by the action of plants grown under given conditions of climate, rock relief, use of the land.

Soil capacity to supply plant needs water continuously, air and nutrients necessary for their normal development is defined as soil fertility. This trait is determined by chemical properties, physical and physico-mechanical properties of soil. As a result of human activity, this attribute can be changed in a positive or negative.

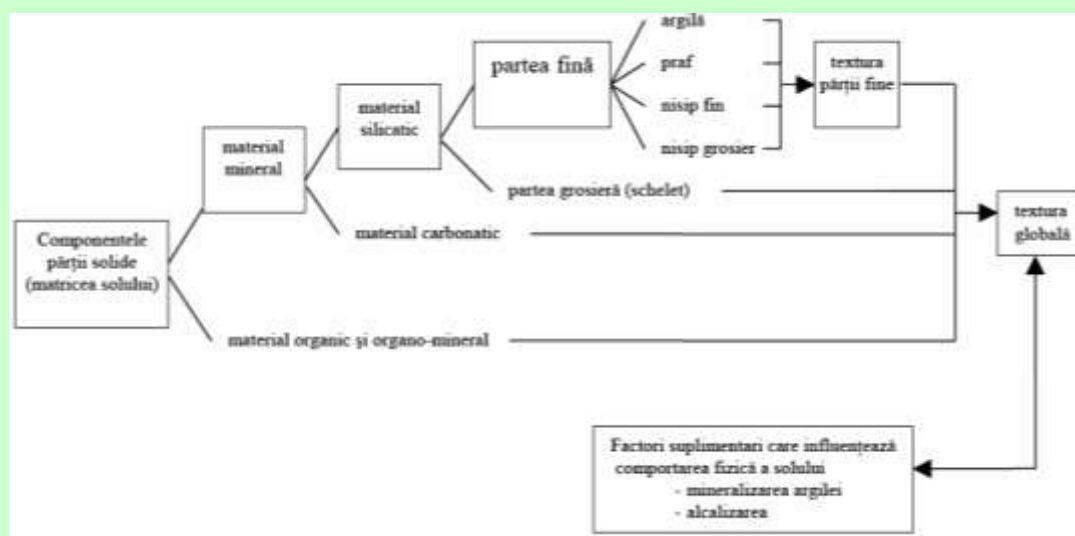
At the same time, the soil should be a favorable environment for plant root development and root system of support for them so they are well established, with no danger of uprooted as a result of disruptive action of meteorological factors.

Being an environment more or less porous soil can retain more or less water may contain a certain amount of air and can be crossed by the roots.

Soils are distinguished by specific properties of chemical, physical and mineralogical.

Soil physical properties include: texture, structure, specific gravity as the apparent porosity, composition, color, water content and temperature.

Soil chemical properties include: solubility and availability of components including nutrients, pH, ion exchange, buffering.



The main components of the solid part of soil