

## Required Staff and Machinery for the Application of the **TURF-System**

The **TURF**-System can be used in multifarious ways. Its main purposes and fields of application are the amelioration of the upper soil layers, the ecological digestible and long-lasting nutrient supply of the plants and the activation of the soil life.

The extent of required staff and machinery for the use of the **TURF**-System depends on the type of problem. The different fields of application for the **TURF**-System are indicated in table 1.

<b>Table 1</b>	<b>Possible fields of application of the TURF-System and the necessary TURF-components</b>					
Fields of application	Different products					
	<b>TURF activ</b>	<b>TURF forte</b>	<b>TURF TERRAVEST</b>	<b>TURF Ef</b>	Seed	further
hydroseedings (slopes)	yes	yes	yes	yes	yes	*
hydroseedings (plain surfaces)	yes	yes			yes	
dry seeding (plain surfaces)	yes	yes			yes	
new building of sports fields	yes	yes			yes	*
sports fields redevelopment	yes	yes			**	
grass vitalisation	yes	yes			**	
soil amelioration	yes	yes				*
extensive tree planting	yes	yes				
single tree planting	yes	yes				
fertilization (landscaping)	yes	yes				
fertilization (forestry)	yes	yes				
fertilization (agriculture)	yes	yes				*
fertilization (horticulture)	yes	yes				*
dust binding			yes	yes		

\* (application of further products possible, if required), \*\* (seed, if required)

### Fields of application of the **TURF**-System

#### 1. Hydroseeding and Dust Binding

For hydroseedings, the **TURF**-components are given into a hydroseeder (tank with built-in mixing machine), mixed with water and sprayed out with a pump- and tube system by spraying jets (seeding cannons or hand spraying nozzles). The hydroseeder can be supplied as container upper part, as trailer with one or two axles drawn by truck or tractor or as complete machine mounted on a truck. Hydroseedings by plane or helicopter are also possible. For the transport of the materials to the construction site, sometimes a separate vehicle is needed.

Depending on the type of hydroseeder chosen (tank volume from 500 litres up to 15.000 litres) and extension of the tube system used (up to 300 m long) 2 to 5 persons are needed. The required staff has to do the following jobs:

- ⇒ supervisor      organisation, leadership and balancing of the construction site  
(can also do the spraying)
- ⇒ driver            maintenance and driving of the vehicle and the hydroseeder  
(together with a second person, he may also fill the tank)
- ⇒ skilled worker   (loading, filling of the tank, spraying out of the greening mixture)
- ⇒ labourer         (loading, filling of the tank, installation of the tube system)

The daily results of a greening team are between 1 and 2 hectares and depend on

- ⇒ the capacity of the hydroseeder (tank volume),
- ⇒ the number of persons working on the construction site,
- ⇒ the degree of difficulty of the location,
- ⇒ the range of technique used (hydroseeder, tube system),
- ⇒ the time for the journey between stock, water deposits and greening areas.

Under difficult locational conditions (e. g. steep faces in rough areas) the daily results may be lower. On huge areas with excellent infrastructure (e. g. airport areas) the daily results may be higher.

## 2. Dry seedings (drill seedings, broad seedings, hand seedings) and fertilization

When recultivating level areas resp. those with a slight inclination only, hydroseeders are not necessary. In such a case the **TURF**-components will be applied with different machines and devices in separate operations.

Seed will be applied with a seed drill, drawn by a tractor. This procedure has to be undertaken in two steps of drilling, whereby for the second drilling process the drilling direction must be changed by 90° (i.e. crosswise drilling).

For the fertilization and soil amelioration of plain or only slightly declined surfaces, common agrarian machinery may be used. For this, a fertilizer spreader and a plant protecting spray nozzle mounted on a tractor are needed.

**TURF forte** has to be spread as dry granule by a tractor with a fertilizer spreading machine.  
**TURF activ** has to be solved in water and then sprayed by a clean plant protecting spray nozzle mounted on a tractor. As towing vehicle, corresponding tractors are sufficient.

