

Seeding Dates For Hydroseedings

For the greening of slopes, mostly hydroseedings are used to apply seed, fertilizer and soil amelioration materials in one or more steps on the more or less inclined surfaces. The sprayed water works as a transport medium for the materials which have to be applied.

The best dates to apply the hydroseedings are spring and early autumn. Due to delays on the construction site it may happen that a hydroseeding has to be done outside the justifiable seeding periods.

Possibilities and limits for the use of early or late seedings

The german DIN 18918 says the following:

Convenient emergence conditions exist with soil temperatures higher than 8° C and a sufficient soil humidity. These conditions are normally given from Mid-April until Mid-June and from Mid-August until the end of September. With early or late seedings there are normally unrequested postponements in the grass mixture in favour of grass types with a low germination temperature.

If a hydroseeding differs extremely from these optimal seeding dates, attention has to be paid to the following points:

1. Change in the seeding mixture

For seeding dates which are close to potential frost-periods, attention has to be paid to the fact that the grass types used should not emerge after a short delay and then freeze as sprouts. One part of the grass types used has to be resistible against frost.

For seeding dates which are close to long-time dry periods, the seed mixture has to be chosen in a way, that one part of the grass types germinates slowly and/or is resistible against dryness.

2. Increase of the erosion protection by the use of soil stabilizers and erosion protective fibres

If the seeding date is unfavourable, a longer emergence period has to be calculated. Due to this longer emergence period the temporally limited erosion protection has to be ameliorated by an increase of the necessary quantities. For this, the percentage of soil stabilizers as well as the necessary quantity of the erosion protective fibres can be increased.

As soil stabilizers have to be biologically decomposable, their effectiveness is limited for a certain time and depends on the necessary quantity chosen, the micro climate and the surface structure of the soil.

3. Risks for seedings out of suitable seeding periods

3.1. Risks for late seedings

For hydroseedings shortly before and during the winter period it has to be considered, that a seeding on frozen soil is very difficult. There will be no link between the surface of the soil and the application mixture. When the soil thaws superficially, the fixed layer gets destroyed due to frost-bursting and can be washed away during rainfall or after the snow melting. If the seed already emerges during mild weather, the sensible sprouts can be killed by frost, especially if a protective covering of snow is not existing.

3.2. Risks for summer seedings

For hydroseedings shortly before or during longer drynesses longer emergence periods have to be calculated. If there is only little or no rainfall, the applied seed can remain onto the slopes for several months without sprouting. On the other hand, emerging seed as a sprout or/and as a young plant is not able to survive a sudden dryness.

For these reasons attention has to be paid to the fact that the seed mixture must consist of several fast and slow sprouting types of seed and that the necessary quantities of soil stabilizer and erosion protective fibres have to be increased in order to keep their effectiveness for a long time.

In every case the client has to be informed about these increased risks and he has to accept the change in the recipe if this has not already been fixed in the tender.

If a seeding shall be done at the beginning of a frost period, the client has to carry the risk.

Important! Hydroseeding cannot protect a slope construction from landslides, settings, dyke breaks, outcoming stratum water and erosion effects, caused by water flowing on the surface.