

INSTALLATION METHOD OF JGT FOR SLOPE STABILIZATION

Sequences of laying of JGT on slopes for rain water erosion control :

- 1 The angle of slope should preferably be at the angle of internal friction and the slope surface should be made free from undulations, soil slurry, mud and sharp projections and compacted with additional earth where necessary.
- 2 Anchoring trenches should be excavated at the top and toe of the slope along the length of the embankment. Recommended dimensions of the trench (usually rectangular) are 300 mm deep and 250 mm wide.
- 3 The selected JGT should be unrolled across the top trench and along the slope downward, caring to see that it touches the soil surface at all points.
- 4 Overlaps should be minimum 100 mm at sides and 150 mm at ends . The JGT at the higher level on the slope should be placed over the portion to its next at a lower level. Side overlaps of JGT piece should be placed over its next piece on one side and under the next piece on the other.
- 5 The JGT should be fixed in position by steel staples usually of 11 gauge dia or by split bamboo pegs. Stapling should be done normally at an interval of 500 mm both in longitudinal and transverse directions. In the areas like, heavy rainfall / steep slope angle / highly non cohesive soil / longer slope length etc. slit bamboo could be placed across and along the slope to have a better check dam effect for reducing the intensity of surface run-off as well as to hold the JGT in position. Special care should be taken to staple the JGT within the anchoring trenches both at the bottom and at the sides.
- 6 The anchoring trenches should be filled up with sand / brick-ballast / gravel etc. for keeping JGT in position. Care should be taken that the overlaps are not displaced during installation.
- 7 Care should be taken to ensure that the JGT is not damaged due to puncture, tear and other installation stresses.
- 8 Seeds of vegetation (grass, legumes etc. of appropriate variety) should then be spread. If seeds are not available, saplings of the appropriate plant species may be planted at suitable intervals through the openings of the JGT.
- 9 In special circumstances, a second dose of seeds may be spread with dibbling of locally available grass.

- 10 Installation should be completed preferably before the monsoon to take advantage of the rains for quick germination of seeds and growth of vegetation.



