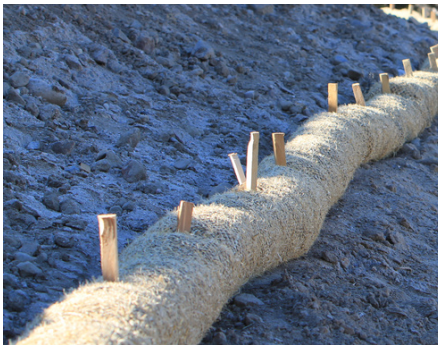
EARTHSAVERS

STRAW WATTLE INSTALLATION GUIDELINE



Perimeter Protection

In perimeter protection applications, straw wattles act as a ponding device to keep sediment laden water from leaving the site. Larger diameter wattles are sometimes used when more sediment holding capacity is required, often replacing silt fence. Straw wattles are also frequently used for inlet and stockpile protection applications.

Slope Interruption

Installed on slope contours, straw wattles act as a slope interrupter, effectively reducing the length of the slope. Temporary ponding behind wattles increases infiltration, reduces runoff, and allows seed and sediment to drop out of suspension and create an enhanced seed bed. Water is then released through the wattle at a slower, steady rate.

Low Flow Channels and Swales

Installed across the flow in channel applications, wattles serve to decrease the energy gradient of the channel, trapping sediment upstream of the installation.

Preparation

Proper site preparation is essential to ensure direct contact of the wattle with the soil. Remove any debris or obstructions and minimize disturbances to yield a smooth, even ground surface.

Trenching

An anchor trench is required for installations utilizing the Type 1 Stake Method, see below. Excavate the trench along the area where the wattles are to be placed. The width of the trench should accommodate the size of the wattle and be 1-3 inches deep. Place soil on the upslope side of the wattle and compact well. Regardless of the staking method used, wattles must be installed to ensure intimate contact with the soil surface along the entire length of the unit.

Type 1 (Stake Thru) Method

After seating wattle in anchor trench, wooden stakes are driven thru the wattle to fasten the wattles to the soil. When conditions warrant, a straight metal bar can be used to drive a “pilot hole” thru the wattle and into the soil. Stakes should be driven in vertically, perpendicular to a horizontal ground plane. Place 7 stakes per 25 foot wattle, starting 6 inches from the wattle end and continuing at 4 foot spacing. Less than 2 inches of the stake should be left exposed above the wattle. When joining two ends of straw wattles, they should be overlapped by a minimum of 1 ft.

Type 2 (Lashed) Method

The ‘Lashed’ method uses rope and notched stakes and requires no trenching. Stakes are driven in half way at 2 foot even, triangular spacing on either side of the wattle. The rope is laced back and forth over the wattle. It is secured at each stake through the pre-cut notch with a half-hitch, as low on the stake and tight to the roll as possible. Finally, the stakes are driven in the rest of the way, cinching the wattle down tightly. To maintain the integrity of the tubular netting, this is the preferred method for installing biodegradable straw wattles.

Installation in conjunction with Dryland Seeding or Hydraulically Applied Products

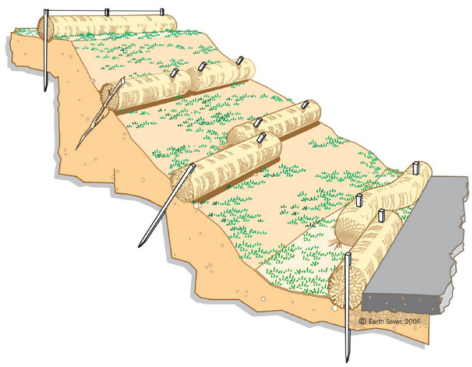
In these applications, wattles are installed first. After wattles are installed, apply the hydraulically-applied product or seed per the manufacturer’s application rates and instructions.

Site Conditions should determine vertical spacing for all wattle installations

Key factors to consider are: slope gradient, length of slope, soil type, climate, and anticipated runoff. These should be confirmed per the engineer.

Typical spacing guidelines are:

Gradient	Vertical Spacing
1H:1V	10' (3.05m)
2H:1V	20' (6.1m)
3H:1V	30' (9.1m)
4H:1V	40' (12.2m)
5H:1V	50' (15.2m)



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