Straw Wattles
Installation Guide

Proper straw wattle installation is crucial to ensuring the success of any erosion control project that employs them. Once installed, straw wattles biodegrade completely, making them virtually maintenance-free. There are some points to consider prior to installation:

- Straw wattles are designed for low-surface flows, not to exceed one cubic foot per second for small areas.
- When installing on a slope, wattles should be placed on contour with a slight downward angle so as to prevent ponding.
- No overall slope prep is required before beginning install; however, the shallow trench depths below should be strictly followed.

Spacing

Vertical spacing for slope installations should be determined by site conditions; slope gradient and soil type are the main factors. Generally, spacing should be:

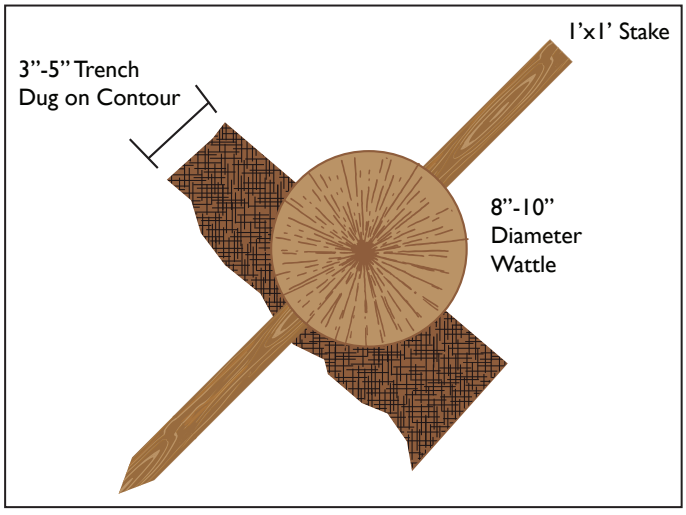
- 1:1 Slopes – 10 feet apart
- 2:1 Slopes – 20 feet apart
- 3:1 Slopes – 30 feet apart
- 4:1 Slopes – 40 feet apart

However, adjustments should be made for the soil type. If the soil is soft and loamy, rows should be placed closer together. For hard, rocky soils, adjust the rows further apart.

Trenching

A hand tool, such as a Maddox or pick, is the ideal tool that should be used to score the ground. Then, using a shovel, dig the trench to the required depth. Soil from excavating the trenches can be placed on the "flow side" (uphill side) of the trench. The depth of the trench differs depending on the soil type:

- 3-5 inches for soft soil
- 2-3 inches for hard soil



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Each straw wattle placed in the trench should fit snugly to ensure that no daylight is seen under the wattle. Pack the soil set aside from trenching against the wattle, from the uphill side. In order to connect running lengths of straw wattles, the ends of each wattle must be tightly secured against the next. Do not overlap the ends on top of each other; however, overlapping behind each other has been done with moderate success. Straw wattles should be staked at each end, and four foot on center. For example:

- 25-foot wattles use 6 stakes
- 20-foot wattles use 5 stakes
- 12 foot wattles use 4 stakes

Drive stakes through the middle of each wattle, while leaving 2-3 inches of stake protruding above the wattle. In the event that the stakes are driven down too low, heavy loads of sediment can pick the wattle up and off of the stakes.

If necessary, form a hole in the wattle with a Maddox (pick end) and get the stake through the straw. If applying straw wattles to flat ground, drive stakes straight down. When applying to slopes, drive the stakes perpendicular to the slopes. To help connect the ends of wattles for longer projects, the first stake of the next wattle should be angled toward the first one. This will help abut them tightly together. For extremely hard or rocky slopes, a pilot bar may be required to begin the stake hole.

Applying on Flat Ground?

Some flat ground applications include placing wattles along sidewalks, or behind curbs. In these cases, it may not be necessary to stake the wattles. It will still be necessary to dig the trench for it. Backfilling is an important step that should not be skipped: If behind the sidewalk or curb has not already been backfilled, lay the straw wattle snuggly against it, and then backfill behind it.

Installs around storm drains and inlets, wattles should be placed back 1 to 1 ½ feet so that it can effectively direct water flow toward the angle of drainage. If all drainage angles into the inlet, snake the wattle all the way around the inlet, using more than one wattle if necessary.

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Straw Wattles
Installing with Wood Stakes

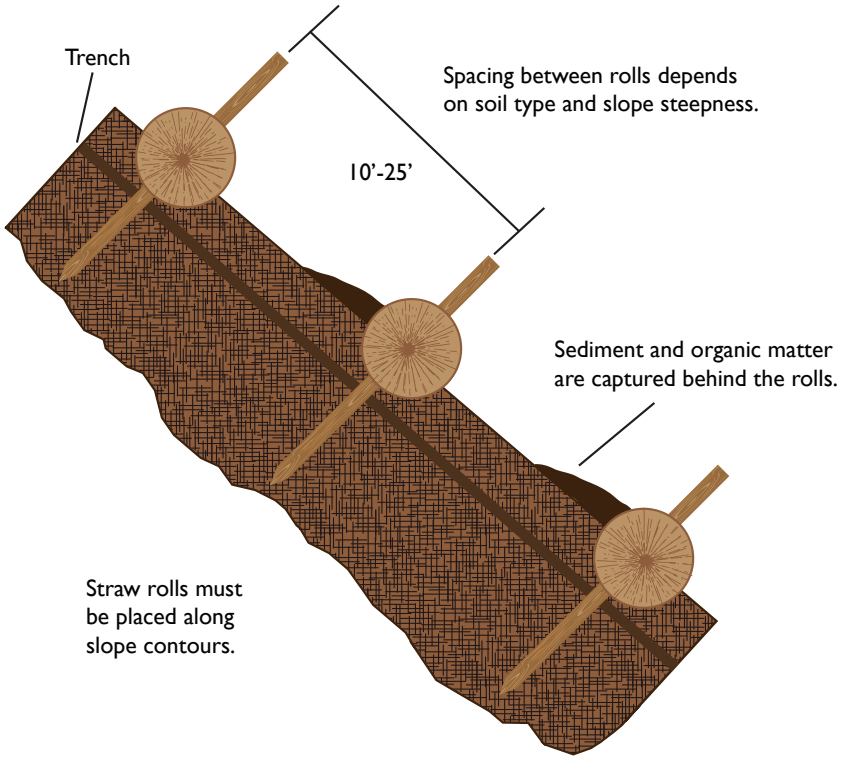
Staking Straw Wattles

Wood stakes are commonly recommended to secure straw wattles, although metal pins are also available. Wood stakes are preferred due to their ability to biodegrade just like the wattle. Be sure that the chosen stakes are long enough to protrude several inches above the wattle as mentioned previously in the guide. Generally, hard, rocky soil requires a stake of about 18 inches long. Softer loam necessitates a 24-inch stake. The diameter of the stake should be about 1 inch for it to be easily driven into each straw wattle.

Oak Wood Stakes Specifications

Dimensions	SKID Type	SKID Quantity
1.25 in. x 36 in.	Nominal Skid	1000/Skid
1.5 in. x 1.5 in. x 36 in.	Full Skid	840/Skid
1.25 in. x 24 in.	Nominal Skid	2000/Skid
1.5 in. x 1.5 in. x 24 in.	Full Skid	840/Skid
1.25 in. x 18 in.	Nominal Skid	2000/Skid

*25-ct. bundle add-ons are available at an additional cost



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