

Good Wood

Erosion control for the long haul



Trent K. Jones

Virtually everyone in the erosion control industry has been involved in a project using agricultural straw or hydromulch. While both products are reputable and widely used, they generally are considered a short-term solution for erosion control. With the exception of products using flexible growth medium, which can last up to two years, both agricultural straw and hydromulch generally biodegrade over a period of three to nine months.

Project managers seeking an effective erosion control product with a much longer life (greater than three years) should strongly consider dry wood-based mulch. Engineered wood strand mulch and wood shreds are two forms of dry wood-based mulch used in the U.S. today. Engineered wood strand mulch is a product manufactured to strict standards regarding the size and mixture of wood particles. “Wood shreds” is the term used to identify any number of wood blends produced by large horizontal grinders or tub grinders, commonly found in the logging and lumber industry.

In the past five years, dry wood-based mulch products have started to increase in popularity and have just recently gained a reputation as being highly effective in reducing sediment erosion. In 2012, the U.S. Forest Service funded mitigation efforts after the Waldo Canyon Fire in Colorado, with nearly \$5 million expended for the application of dry wood-based mulch. Also in 2012, a contractor by the name of 814 Solutions was given an award for its mitigation of the Swastika (New Brilliant) Mine in New Mexico, which involved the use of engineered wood strand mulch.

The wood particles found in dry wood-based mulch generally are much heavier than agricultural straw, so they do not blow away in the wind. Dry wood-based mulch, therefore, does not need to be crimped or

tackified to the soil, which keeps the installation cost very low. By nature, wood-based mulch also is 100% free of noxious weeds, has no chemicals or pesticides, does not require the use of water and does not biodegrade for at least three to four years.

In areas with dry climates, the use of wood-based mulch makes perfect economical sense, as it often takes longer than one year for native grasses and plants to fully germinate in an area of disturbed soil. Dry wood-based mulch products will provide lasting erosion control benefits for several growing seasons, until such grasses and plants have fully regenerated.

Project managers interested in using dry wood-based mulch are encouraged to do their research, as different blends of wood-based mulch will vary in performance. For example, certain blends of wood shreds produced by a horizontal grinder with a 4-in. screen may require as much as 10 tons of product to provide 50% coverage over one acre of soil. The use of engineered wood strand mulch will require only 3.75 tons to provide the same 50% coverage over 1 acre of soil.

Specifications on contracts need to be very clear about what is and is not acceptable for use, or a project manager may not get what he or she paid for. A number of research studies have been performed by the U.S. Forest Service research lab in Moscow, Idaho, to help project managers make an educated decision before purchasing. Be sure to test a few acres of dry wood-based mulch on your next project, and you just might find a new love that lasts well beyond this year. **SWS**

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