



Missouri
Department of
Natural Resources

MISSOURI'S SCRAP TIRE PROGRAM

End Uses And Markets For Scrap Tires

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End uses for Scrap Tires

Civil Engineering Uses

- **Asphalt Rubber**
- **Subgrade Fill and Embankments**
- **Backfill for Walls and Bridge Abutments**
- **Subgrade Insulation for Roads**
- **Landfill Structures**
- **Septic System Drain Fields**

Asphalt Rubber

- **potentially largest single market for ground rubber**
- **blended with asphalt to beneficially modify the properties of the asphalt**
- **can be used either as part of the asphalt rubber binder (a.k.a., asphalt rubber), seal coat, cap seal spray or joint and crack sealant, or as an aggregate substitution (rubber modified asphalt concrete).**

Subgrade Fill and Embankments

- **Tire shreds can be used to construct embankments on weak, compressible foundation soils.**
- **Tire shreds are viable in this application due to their light weight.**
- **Examples:**
 - **retaining forest roads,**
 - **protecting coastal and waterway roads from erosion,**
 - **enhancing the stability of steep slopes along highways,**
 - **reinforcing shoulder areas.**



Backfill for Walls and Bridge Abutments

- The weight of the tire shreds reduces horizontal pressures and allows for construction of thinner, less expensive walls.
- Tire shreds can also reduce problems with water and frost buildup behind walls because tire shreds are free draining and provide good thermal insulation.



Subgrade Insulation for Roads

- **Placing a 6 to 12-inch thick tire shred layer under the road can prevent the subgrade soils from freezing.**
- **The high permeability of tire shreds allows water to drain from beneath the roads, preventing damage to road surfaces.**



Landfill Structures

- lightweight backfill in gas venting systems,
- in leachate collection systems,
- operational liner protection, and
- as a material for daily cover.

Septic System Drain Fields

- **replaces traditional stone backfill material**
- **hold more water than stone and can be transported more easily due to their comparatively light weight**



Other end uses

- **Tire-derived fuel**
- **Ground cover under playground equipment**
- **Running track material**
- **Sports and playing fields – as a soil additive**
- **Gravel substitute**
- **Drainage around building foundations and building foundation insulation**
- **Boat bumpers**
- **Agricultural mats**
- **Molded products**

Scrap Tire Processors in Missouri

www.dnr.mo.gov/env/swmp/tires/tireprocessors.htm



◆ QUESTIONS?