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16. Abstract <p>In 1991, the South Carolina Legislature passed the South Carolina Waste Policy Management Act requiring the South Carolina Department of Transportation (SCDOT) to pursue the use of certain waste materials in highway construction and maintenance operations. In an earlier research project, rubber, in the form of discarded tires, was identified as one of the state's most abundant waste materials with the potential for use in the highway industry.</p> <p>In 1997, landscaping products made from ninety-four (94) tons of tires collected from illegal dumps in a portion of the state were placed at five (5) of the Department's rest areas and welcome centers. The products included several sizes of loose mulch and vegetation mats. This study was initiated to evaluate the performance of the waste tire landscaping products.</p> <p>After three (3) years, the waste tire landscaping products were considered to be performing satisfactorily. The rubber mulch had not deteriorated and little difference in color was noted. Attendants at the rest areas and welcome centers said the loose rubber mulch stayed in place better than traditional bark mulch. The vegetation mats were useful when placed in areas that were maintained. However, many were used in remote areas of the facilities and were covered with soil and grass by the end of the evaluation period.</p> <p>One negative aspect of the material is a very noticeable rubber smell particularly on hot, humid days. Also, the initial cost of the waste tire mulch is considerably higher than conventional wood mulch products. Cost comparisons showed that rubber mulch needed to last four (4) to five (5) years to be cost effective assuming wood mulch was replaced yearly.</p>					
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