Water infiltration of coal refuse piles leads to an increase of acidity in groundwater and nearby streams and rivers. This study tested the effect of adding short paper fiber as a soil amendment to establish and maintain vegetative cover in coarse coal refuse. Two blends of short paper fiber and coarse coal refuse were tested for use as a topsoil mixture as well as a control sample containing only coal refuse. The ratios tested were 80% refuse with 20% short paper fiber (80/20 blend), 60% refuse with 40% paper fiber (60/40 blend), and 100% refuse with 0% paper fiber (control). All samples were tested using the same seeding mixture in identical growing conditions. The experiment lasted 16 weeks, mid-July – October 2016. Vegetation growth was measured weekly based on ground cover and stem height. Biomass measurements were collected in the final week of the study. Ground cover reached a maximum for samples containing paper fiber at 77.1% in the 80/20 blend. The maximum ground cover for any sample without paper fiber was 0.5%. Samples with short paper fiber had greater ground cover and biomass than the refuse samples. Results show that both blend ratios performed similarly with respect to the use as a growth medium. Therefore, the addition of short paper fiber shows potential to support vegetation establishment in coarse coal refuse.

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