# **Canopy and Residue Cover Dynamics in Row Crop-Cover Crop Systems. (S06-hunt161814-Poster)**

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### Abstract:

To reduce erosion during corn silage production Wisconsin farms can supplement corn residue with a cover crop (CC) to increase total soil cover (TSC). In 1999/2000 annual rye, winter rye, and red clover CC's were interseeded into no-till and conventional till corn silage fields and winter rye was post-harvest seeded into a conventional till field. The objectives of this study were to (a) evaluate temporal changes in TSC in CC and non-cover crop (NCC) plots and (b) determine if CC's can act as a supplement to corn residue to reach =/>30% TSC and reduce erosion potential. Interseeded CC's had a higher erosion reduction value (>30% TSC) in the fall than post-harvest seeded CC's. However by the following spring both methods resulted in =/>30% TSC. In general CC's significantly increased TSC (by 1-3x) compared to NCC plots. CC plots also had low soil surface cover overlap with corn residue, suggesting a high soil cover supplement value due to CC filling of soil cover gaps left by silage residue. Alone, CC erosion reduction value depends on climate and farm systems. However, if combined with proper residue management schemes CC's can substantially decrease the erosion potential.

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