Scene understanding methodologies (e.g., classification, segmentation, and anomaly detection) can be costly when operating on a per-pixel basis. As remote sensing applications rely on imagery with greater resolution, pixels regularly contain similar information to their neighbors. In recent years, scene understanding approaches have leveraged superpixel algorithms to partition imagery into small homogeneous regions for a variety of tasks. Instead of performing operations on millions of pixels, thousands, or in some cases hundreds of superpixels can be used as inputs into various pipelines. Most superpixel algorithms rely solely on RGB color information to produce superpixel maps. However, when multiple co-registered modalities are available, as is the case with the National Ecological Observatory Network (NEON) tree crown dataset, it is possible to combine information from multiple sources to produce a single shared map. In this work we combine airborne hyperspectral imagery, LiDAR point clouds, and RGB imagery to obtain superpixel maps and compare the oversegmentation results to those obtained by fusing individual maps produced from each modality. Superpixels are computed using the Simple Non-Iterative Clustering (SNIC) algorithm. Oversegmentation maps are scored using standard evaluation approaches. We present results on a subset of the National Ecological Observatory Network imagery dataset.