Wyoming, known for its vast sagebrush plains, harbors a diverse range of *Artemisia* species, yet their potential bactericidal properties remain largely unexplored. This study aims to assess the antimicrobial activity of 70% ethanol extracts from various *Artemisia* species, including *Artemisia nova*, *Artemisia frigida*, *Artemisia tridentata vaseyana*, *Artemisia tridentata tridentata*, and *Artemisia tridentata wyomingensis*. We assessed antibiotic activity via the Kirby-Bauer Method growing *Staphylococcus aureus*, *Escherichia coli*, and *Pseudomonas aeruginosa* on Mueller-Hinton media. We will interpret differences in antimicrobial effects across species and subspecies. Our findings shed light on the potential of native plant species in Wyoming as sources of novel antimicrobial agents, with implications for the development of alternative therapies against infectious diseases. Interestingly, many opportunities for ethnobotanical investigations remain regarding Native Americans' use of these aromatic plants.